Event structural inquiries into Hungarian and other languages

Kardos Éva Aliz

Debreceni Egyetem

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**Glossing conventions**

1 = first person  
2 = second person  
3 = third person  
ABL = ablative  
ABS = absolutive  
ACC = accusative  
ADJ = adjectivalizer  
ALL = allative  
ART = article  
CAUS = causative  
CL = classifier  
COMP = complementizer  
CTR = control  
DAT = dative  
D/C = determiner/complementizer  
DECL = declarative  
DEL = delative  
ELA = elative  
ERG = ergative  
GEN = genitive  
ILL = illative  
INE = inessive  
INF = infinitive  
INS = instrumental  
LC = limited control  
NEG = negation  
NMLZ = nominalizer  
NOM = nominative  
PART = participial  
PASS = passive  
PF/PFV = perfective  
PL = plural  
POSS = possessive  
PREF = prefix  
PRF = perfect  
PRT = particle  
PST = past  
S = subject  
SG = singular  
STAT = stativizer  
SUB = sublative  
SUBJ = subjunctive  
SUP = superessive  
TER = terminative  
TMP = temporal  
TR = transitive  
TRA = translative
Part I   Event structure in Hungarian
1 Introduction

This habilitation thesis provides an overview of event structural phenomena in Hungarian neutral sentences with an eye toward how the facts of Hungarian fit into the larger cross-linguistic picture. Particular emphasis is laid on one specific property of events, which is the property of having some endpoint (i.e. a culmination point). A central hypothesis that is tested in light of data from Hungarian is that event culmination or the lack thereof fundamentally structures the event domain in language (as proposed in Borer 2005, Thompson 2006, MacDonald 2008b, Travis 2010, among others). A related question that is also investigated in this work is how the morphosyntactic properties of a language determine what verb meanings are possible or impossible. The hypothesis that is first discussed in this connection is the manner-result complementarity hypothesis of Rappaport Hovav and Levin (2010), according to which verb meanings are constrained in a way that monomorphemic verbs may encode information about the manner of an activity or a result state, but not both at the same time. The research reported here has two main results: (i) It is shown that the event structural interpretations associated with various inner/lexical aspectual elements (i.e. verbal particles like le in lefestett egy kerítést ‘painted a fence (telic)’, result predicates like pirosra in pirosra festett egy kerítést ‘painted a fence red’ and pseudo-objects like egyet ‘one.Acc’) in expressions like futott egyet ‘went for a run’ arise due to the syntactic configuration characterizing these elements and (ii) verb meanings in Hungarian exhibit a complementarity in a way that roots associated with verb stems encode the manner of an activity or a result state and event boundedness is lexicalized outside the verb stem. That is, result states and the attainment of such states tend to be encoded in separate components in Hungarian. This is derived from scopal considerations, which have been argued to structure the left periphery of the Hungarian sentence (É. Kiss 1984, 2002, 2009). An interesting upshot of the proposal is that path/result-encoding verbs like English clean and enter are absent from Hungarian.

This thesis is a direct continuation of the research reported in Kardos (2012, 2016), where I provide a scalar semantic analysis of the telicity facts of Hungarian without addressing the structural properties of the event domain and how verb meanings are constrained. A central idea in these works is that Hungarian event structural elements such as the verbal particle meg and resultative secondary predicates are overt instantiations of an event-maximizing operator MAXe (Filip and Rothstein 2005 and Filip 2008), which gives rise to predicates associated with quantized reference (Krifka 1989, 1992, 1998) and therefore a telic interpretation. This analysis is couched in a scalar semantic framework, where it is assumed that potentially all dynamic predicates express a change along some scale (for more on scale-based analyses of the aspectual properties of verbal predicates, see Hay et al. 1999, Kennedy and McNally 2005, Rappaport Hovav 2008, among others) and scales are associated with a mereological part structure, as in Beavers (2009, 2012a). The part structure of scales is homomorphically mapped onto the mereological structure of events, thereby directly determining the aspectual interpretation of dynamic predicates. Beavers (2012a) builds on Krifka’s (1989, 1992, 1998) seminal work on aspectual composition, but also modifies Krifka’s analysis in crucial ways: First, Krifka’s definition of telicity (Krifka 1998: 207, (37)) is revised as follows:

(1) A predicate X over events is telic iff for any event it describes it does not describe any non-final subevent of that event.

(Beavers 2012a: 35, (2.23)
As discussed in more detail in Kardos (2016), the definition above is void of initial points (contra the definition in Krifka (1998) and in line with Krifka’s (1992) analysis) and instead involves only goal points in the determination of telicity values. The intuition behind this is that telicity is about reaching some endpoint or culmination point without regard to where the denoted eventuality begins.

Another way in which Beavers’s analysis is a revised version of Krifka’s (1998) is that multiple incrementality is accounted for in the former. For illustrative examples, consider (2).

(2)  
a. The earthquake shook a book off the shelf in/? for a few seconds.  
b. The earthquake shook books off the shelf for/? in a few seconds.  
c. The earthquake shook a book for/? in a few seconds.  
d. The earthquake shook books for/? in a few seconds.

(Filip 1999: 100, (33))

What is interesting about these facts is that contra much previous literature on lexical/inner aspect (see, for example Tenny 1987, 1994, Verkuyl 1972, 1993), the telicity value of the predicate in the sentences above depends on not one but two incremental themes in the following way: the theme must have quantized reference and the path/scale associated with the verbal predicate must be bounded. If one of these two conditions fails to obtain, the predicate is interpreted atelicly, as in (1b), (1c) and (1d). By contrast, (1a) receives a telic interpretation with a theme that is quantized, also referred to as the figure argument (a book in (2)), and a bounded path supplied by the PP off the shelf.1

As mentioned above, the central idea in Kardos (2012, 2016) is that Hungarian aspectual particles and resultative/locative expressions overtly encode a maximization operator, MAXE, which applies over predicates of events measured by both figure arguments and scalar/path arguments by virtue of having special homomorphic relations, so called figure-path relations between them. The figure/path relation (FPR) is defined as follows:2

(3) Figure/path relation: Every unique part of a figure argument x corresponds to a unique subevent e', a proper part of e, and the sum of all such subevents constitutes e. For each such e', every unique part of e' corresponds to a unique part of path p and vice versa; temporal adjacency in e' corresponds to spatial adjacency in p.

(adapted from Beavers 2011b: 14, (19))

A crucial effect of the maximization operation on top of Beavers’s FPR is the determination of quantized reference regarding the verbal predicate and ultimately the interpretive constraints that characterize the figure and the scale such that the figure must be specific about its quantity and the scale must be bounded. Thus, Hungarian contrasts with English as follows: in the former quantized reference of the VP seems to be a necessary and sufficient condition for telic readings in cases where in English, which does not seem to require event maximalization for telicity in the case of most verbal predicates, this condition is only sufficient. It is also explicitly proposed in Kardos (2016: 14) that “the overt marking of event maximalization has the effect that, when containing particles, resultative/locative expressions or DPs, Hungarian predicates of change receive a strictly telic interpretation”. This means that aspectual duality typically

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1 For more on how multiple incrementality also figures in the durative/punctual interpretation of verbal predicates in English, see Beavers (2012a: 47-52).

2 For more on how the event is structured relative to the path and the figure, see Beavers (2012a: 42-43).
does not arise in Hungarian, contra what is observable in languages like English, where telicity has been argued to emerge as a confluence of properties contributed by verbal, nominal, adjectival, and prepositional components and, in some cases, by pragmatic context, which can easily yield aspectual variability. For an interesting novel proposal of maximalization in the verbal domain, parallels between the verbal domain and the nominal domain regarding quantity interpretations, and for contrasts between English and Hungarian verbal particles and resultatives when it comes to their aspectual effects within an analysis embracing the notion of maximalization, see Borer (2023) and a brief discussion about this proposal in Chapter 8.

As will become clear in the subsequent discussion, the present work focuses on the syntax of event-maximizing elements in Hungarian neutral sentences, and to a limited extent some other languages, and also ties the morphosyntactic characteristics of the event domain to how event lexicalization is constrained across languages, where the focus again is on Hungarian. An important idea is that telicity is structurally licensed, contra previous claims according to which it is a matter of lexical semantics, as in, for example, É. Kiss (2008a).

This thesis is divided into three parts: After this introduction, the main goal of Part 1 is to discuss some well-known event structural phenomena in Hungarian and to provide a novel analysis of some of the data from this discussion. First, Chapter 2 showcases crucial facts of Hungarian based on prior literature with a special focus on findings from the past two decades or so. Chapter 3 presents the main tenets of Kardos and Farkas (2022), which is a recent account of how inner/lexical aspect structures the Hungarian event domain. An important claim in this chapter is that the telicity effect of objects is not a syntactic matter, at least in light of the Hungarian facts. A similar idea is put forward by MacDonald (2023a: 19), who argues, building on Filip (2008), Kardos (2016), Kardos and Farkas (2022) and Martínez Vera (2021, 2022), that it is the initial and final points of the scale associated with a given verbal predicate that determine (a)telicity values. The role of NP objects is less significant in the syntactic computation of inner aspect than previously thought. I elaborate MacDonald’s (2023a, b) idea further in the final section of Chapter 3. Next, Chapter 4 in Part 2 presents important findings in lexical semantics from recent decades in an effort to set the stage for more details about event lexicalization in Hungarian, the topic of Chapter 5, and lexical semantic constraints in Hungarian verbs in the context of Rappaport Hovav and Levin’s (2010) manner-result complementarity hypothesis, to be discussed in Chapter 6, against the backdrop of the structural analysis of the event domain presented in Chapter 3. A central theme in Part 2 is that verb meanings are highly structured and it is this property of verbs that allows us to formulate testable hypotheses about, for example, what components may make up the meaning of a given verb and what components are ruled out within a single verb. A substantial part of Part 2 is devoted to lexical semantic analyses based on English data, which is then followed up by how the Hungarian facts can be dealt with in the context of more recent assumptions about verb meanings. Then, Chapter 7 in Part 3 approaches culmination phenomena from a cross-linguistic perspective with Hungarian featuring heavily in the discussion along with English, Mandarin Chinese and Slavic languages, among some others, whose facts have been at the center of attention in the event structural literature in recent decades. This chapter presents two recent typologies of accomplishment predicates as well as semantic and syntactic analyses of various non-culmination phenomena and/or maximizers. The central insight that arises in light of the discussion in this final content chapter and the thesis overall is twofold: (i) verbal predicates associated with an endpoint are more varied than previously thought and (ii) recent investigations of various (non-)culmination phenomena call for a more in-depth analysis of how notions like ‘telicity’, ‘defeasibility’, ‘event maximality’ and ‘result state’ interact in the grammars of languages with each other
and with various functional categories outside the event domain. Finally, Chapter 8 concludes with closing remarks and some reference to a recent proposal by Borer (2023), who, using data from a variety of languages, draws new parallels between the quantificational effects of elements in the nominal domain such as cardinals and quantifiers and event structure-building elements like verbal particles, resultatives, prefixes and certain DPs in the verbal domain.
2 Background: Central phenomena

2.1 Introduction

This chapter provides an overview of event structural and lexical aspectual phenomena in Hungarian, whose aspectual system resembles that of Slavic languages in many ways and is in significant ways different from the aspectual system of English-type languages, though there are similarities with the latter, as well. An important goal of this chapter is to provide background information for the analyses in subsequent chapters. The chapter is structured as follows: Section 2.2.1 shows how lexical aspectual properties such as telicity and durativity arise in the class of dynamic predicates and explores various diagnostic tests signaling event complexity and the aspectual class membership of verbal predicates. It also illustrates the four Vendlerian classes and the class of semelfactives with numerous examples. Section 2.2.2 is concerned with the semantic contribution of verbal particles, direct objects and pseudo-objects to the aspectual interpretation of the sentence. Section 2.3 provides an inventory of Kiefer’s eight aktionsarten: the iterative, the frequentative, the diminutive, the semelfactive, the delimitative, the inchoative, the resultative and the submersive aktionsarten. Section 2.4 discusses further instances of event structural elements such as resultatives, goal-denoting expressions, depictives, and bare nominals.

Before I proceed, two comments are in order: (i) I assume that lexical aspect and grammatical aspect are independent (albeit related) grammatical categories, as proposed by Smith (1991/1997), the former being linked to various nodes in the vP, whereas the latter are generally associated with the functional domain above vP. In this work I focus on the former domain. (ii) In this chapter I take patients to be participants in change-of-state events, whereas themes undergo a change of location.

2.2 Event structure and lexical aspect

2.2.1 Aspectual classes and event structure: compositionality, tests, and types

The classification of verbal predicates into various aspectual types has long been of central importance to scholars working on event structure and lexical aspect. The reason for this is that the aspectual class membership of verbal predicates directly determines their grammatical properties including their morphological properties and their interaction with various functional categories. Three grammatically relevant properties of verbal predicates that are often considered in investigations of aspectual classes are dynamicity, durativity, and telicity, i.e. the property of having an inherent endpoint. The conflation of these properties gives rise to the classification in Table 1, which has been assumed by many scholars as the standard aspectual classification of verbal predicates up to this day, originally proposed by Vendler (1957/1967).

Table 1: The Vendlerian aspectual classes

<table>
<thead>
<tr>
<th></th>
<th>DYNAMIC</th>
<th>DURATIVE</th>
<th>TELIC</th>
</tr>
</thead>
<tbody>
<tr>
<td>states</td>
<td>-</td>
<td>+</td>
<td>-</td>
</tr>
<tr>
<td>activities</td>
<td>+</td>
<td>+</td>
<td>-</td>
</tr>
<tr>
<td>accomplishments</td>
<td>+</td>
<td>+</td>
<td>+</td>
</tr>
</tbody>
</table>

3 This chapter is work in progress for Bibok (to appear).
Vendler distinguishes between states, activities, accomplishments, and achievements. States are different from members of the other three classes in that they are not characterized by dynamicity and they do not have an inherent endpoint. Activities contrast with accomplishments and achievements in that the former have a homogeneous internal structure, while the latter are heterogeneous by virtue of having an inherent endpoint. Accomplishments contrast with achievements in that the former have some duration, while the latter are momentaneous. To illustrate each of these aspectual classes, I provide some examples in (1).

(1) states: gyűlől ‘hate’, ismer ‘know’, szeret ‘like/love’, tartalmaz ‘contain’
activities: fut ‘run’, sétál ‘walk’, táncol ‘dance’, újságot olvas lit. ‘newspaper read’
achievements: el-érí egy hegycsúcsot ‘reach the hilltop’, el-tör egy vázát ‘break a vase’, meg-érkezik ‘arrive’, meg-hal ‘die’

The class membership of a given verb or verbal expression can be identified with the help of various diagnostics. Some of these are commonly used across a variety of languages, while others are language-specific. In what follows I will focus on those that can be applied to Hungarian verbal expressions so that I can subsequently give an overview of various verb classes in this language. Before that, however, I briefly discuss what components of the discourse contribute to determining temporal properties of events denoted by verbal predicates.

2.2.1.1 The compositionality of event structure properties
It is widely held that event structure properties like telicity/boundedness and durativity are generally determined not only on the basis of the aspectual meaning of the verb heading the predicate, as is suggested in Vendler (1957/1967), but they are calculated compositionally based on what the verb, its argument(s), and sometimes even context contributes to the meaning of the verbal predicate (see Verkuyl 1972, 1993; Dowty 1979; Tenny 1994; Smith 1991/1997; Krifka 1989, 1992, 1998; Hay et al. 1999, among others). First, I illustrate this with how telicity obtains in English in the case of consumption predicates like eat and creation predicates like build.

(2) a. John ate a kilogram of rice in/*for an hour.
   b. John ate rice for/*in an hour.
(3) a. Peter built a house in/??for a year.
   b. Peter built houses for/*in a year.

4 See chapter 7 for another use of the notion ‘accomplishment’.
As evidenced by the compatibility of the frame adverbial *in an hour* and the incompatibility of the durative adverbial *for an hour*, the predicate in (2a) is telic (Vendler 1957/1967). This is due to the fact that the patient argument *a kilogram of rice* measures out the event progressing in an incremental fashion by virtue of supplying specific information about the extent of the event participant along which change (i.e. consumption) occurs (Tenny 1994). Put it more precisely using Krifka’s (1989) terminology, a telic interpretation arises since (i) the verb *eat* encodes an incremental relation (a homomorphism) that holds between the structure of the patient and the structure of the event and (ii) the patient argument has quantized reference, a property which is inherited by the event argument. This, i.e. the quantized nature of the verbal predicate, gives rise to a telic interpretation. If, by contrast, the patient is not specific enough as to its quantity (i.e. it is non-quantized), an atelic interpretation arises, as shown in (2b). Likewise, predicates like *build* in (3) display the same aspectual behavior. The quantized internal argument *a house* gives rise to a telic reading, as in (3a), while the non-quantized argument *houses* yield atelicity, as in (3b). A similar pattern is also observable in the case of some other predicate types. See, for instance, the motion predicates of (4) and (5).

(4)  
  a. John ran a mile *in*/*for* an hour.
  b. John ran *for*/*in* an hour.

(5)  
  a. Charles swam ten laps *in*/*for* two hours.
  b. Charles swam *for*/*in* hours.

In predicates like (4) and (5), it is the path that can measure out the event on the condition that it has quantized reference. In (4a) and (5a), this condition is met and hence a telic reading arises, while (4b) and (5b) are atelic in the absence of a quantized path argument.

In addition to components like verbs and arguments, context can also play a role in aspectual composition. Consider (6).

(6)  
  a. Kate warmed a plate *for*/*in* 10 minutes.
  b. Mary wiped the table *for*/*in* 10 minutes.

The examples in (6) are characterized by aspectual duality. The verbal expression *warm a plate* in (6a) is a degree achievement (Dowty 1979) expressing a change in the temperature of the referent of the affected argument *a plate*. In this example, a telic interpretation can arise, as evidenced by the compatibility of the temporal adverbial *in 10 minutes*, if context allows the listener to assign an endpoint to the denoted event (i.e. it is known what temperature is attained by the plate at the culmination of the event). If such contextual information is not available, atelicity obtains (Hay et al. 1999). Likewise, English surface context verbs like *wipe* are also characterizable in terms of variable telicity, as shown in (6b). It is again dependent on context whether or not telicity or atelicity arises. In the absence of contextual information, it is generally a telic interpretation that arises such that the event is over when the action expressed by the verb *wipe* has been applied to the entire surface. On the other hand, atelicity can also arise if – given specific contextual cues – “the specific pattern of motion and contact characteristic of the verb is understood as repeated indefinitely over the surface” (Levin and Sells 2009: 311). (For more on the aspectual properties of English surface contact verbs, see, for instance, Rappaport Hovav and Levin 2002.)
Signs of the compositionality of event structure properties like telicity are also observable in Hungarian (É. Kiss 2008a; Csirmaz 2008a; Maleczki 2008). First, I illustrate this with the examples in (7) and (8), which are the Hungarian equivalents of the English examples in (2) and (3). I use the temporal adverbials egy óra alatt ‘in an hour’ and egy órán át ‘for an hour’ to probe for (a)telicity. Compatibility with the former indicates the availability of a telic interpretation, whereas compatibility with the latter is a sign of atelicity (for more on these and other aspectual tests, see Section 2.2.1.2.2).

(7) a. János egy óra alatt evett egy kiló rizst.
János an hour under ate a kilo rice.Acc
‘János ate a kilogram of rice in an hour.’

b. János egy órán át/egy óra alatt rizst evett.
János an hour.Sup through/an hour under rice.Acc ate
‘János ate rice for an hour.’

(8) a. Sára egy év alatt épített egy házat.
Sára a year under built a house.Acc
‘Sára built a house in a year.’

b. Sára egy éven át/egy év alatt házakat építtett.
Sára a year.Sup through/a year under house.Pl.Acc built
‘Sára built houses for a year.’

The examples in (7a) and (8a) show that the presence of a quantized internal argument can give rise to a telic interpretation in predicates containing verbs like eszik ‘eat’ and épít ‘build’, whereas a non-quantized patient argument yields atelicity, as in (7b) and (8b). A similar pattern arises in the domain of motion predicates, just like in English. I illustrate this with (9) and (10).

(9) a. János fél óra alatt öt (400 méteres) lap.
János half hour under five (400 meter) lap.Nom
‘János ran five (400-meter) laps in half an hour.’

b. János órákon át/fél óra alatt 400 méteres köröket futott.
János hour.Pl.Sup through/half hour under 400 meter.Nom lap.Pl.Nom ran
‘János ran 400-meter laps for hours.’

(10) a. Károly fél óra alatt öt hosszút úszott.
Károly half hour under five lap.Nom swim
‘Károly swam five laps in half an hour.’

b. Károly fél órán át/egy fél óra alatt 50 méteres hosszukat úszott.
Károly half hour.Sup through/a half hour under 50 meter.Nom lap.Pl.Nom swim
‘Károly swam 50-meter laps for half an hour.’

If the path measures out the event by virtue of having quantized reference, a telic reading becomes available, as illustrated in (9a) and (10a). Otherwise the predicate is atelic and hence incompatible with the temporal adverbial fél óra alatt ‘in half an hour’, as in (9b) and (10b).
Expressions like *a konyhába* ‘into the kitchen’ in (11b) also contribute to the telic interpretation of predicates by virtue of naming the goal point reached at the termination of the denoted eventuality.

(11) a. Kati órákig futott.
   Kati hour.Pl.Ter ran
   ‘Kati ran for hours.’

b. Kati 10 perc alatt a konyhába futott.
   Kati 10 minute under the kitchen.Ill ran
   ‘Kati ran to the kitchen in 10 minutes.’

When it comes to the examination of the role of context in the (un)bounded interpretation of verbal predicates, an important contrast emerges between English and Hungarian. Specifically, contextual cues do not play a role in whether Hungarian verbal predicates like those in (12) and (13) receive a bounded or unbounded interpretation.

(12) a. Kati 10 percen át/*10 perc alatt melegített egy tányért.
   Kati 10 minute.Sup through/10 minute under warmed a plate.Acc
   ‘Kati warmed a plate for 10 minutes.’

b. Kati 10 perc alatt/*10 percen át fel-melegített egy tányért.
   Kati 10 minute under /10 minute.Sub through Prt-warmed a plate.Acc
   ‘Kati warmed a plate in 10 minutes.’

(13) a. Kati 10 percen át/*10 perc alatt törölt egy asztalt.
   Kati 10 minute.Sup through/10 minute under wiped a table.Acc
   ‘Kati wiped a table for 10 minutes.’

b. Kati 10 perc alatt/*10 percen át le-törölt egy asztalt.
   Kati 10 minute under/10 minute.Sup through Prt-wiped a table.Acc
   ‘Kati wiped a table in 10 minutes.’

c. Kati 10 perc alatt/*10 percen át szárazra törölt egy asztalt.
   Kati 10 minute under/10 minute.Sup through dry.Sub wiped a table.Acc
   ‘Kati wiped a table dry in 10 minutes.’

What is important to note here is that predicates containing verbs like *melegít* ‘warm’ and *törölt* ‘wipe’ contrast with their English counterparts in that they cannot receive a telic interpretation without a verbal particle like *fel* ‘up’ in (12b) or *le* ‘away’ in (13b) or a resultative expression like *szárazra* ‘dry.Sub’ in (13c) regardless of the quantized nature of the affected argument. Since contextual cues do not have a role in telicity in Hungarian with these predicates, aspectual duality of the type in (6) does not arise in the case of *melegített egy tányért* ‘warmed a plate’ and *törölt egy asztalt* ‘wiped a table’. (For arguments for the telicizing role of verbal particles and resultative expressions, see Section 2.2.2.1.)

Another aspectual property that has been used to illustrate the compositionality of event structure properties is durativity. I illustrate this first with the English examples in (14), which I took from Beavers (2012a: 49, (2.49a) and (2.49c)).
(14) a. The settler will cross the border in an hour.
   b. The settlers will cross the border in an hour.

The examples above differ in the internal complexity of the theme, whose referent undergoes a change of location. In particular, the theme is atomic (i.e. it is not decomposable into subparts) in (14a) and complex in (14b). This gives rise to the following aspectual contrast: The predicate in (14a) receives a single, punctual interpretation, which is evidenced by the fact that the temporal adverbial *in an hour* can only refer to the interval preceding the crossing event. The example in (14b), on the other hand, has multiple interpretations such that the temporal adverbial refers to (i) the duration of the crossing event or (ii) the interval preceding the crossing event. This is a sign of durativity.

Similar effects are observable in Hungarian as well. Consider (15).

(15) a. Az utas öt órakor le-szállt a vonatról.
   the passenger five hour.Tmp Prt-flew the train.Del
   ‘The passenger got off the train at five o’clock.’
   b. Az utasok öt órakor le-szálltak a vonatról.
   the passenger.Pl five hour.Tmp Prt-flew the train.Del
   ‘The passengers got off the train at five o’clock.’

The predicates in (15a) and (15b) are different in that the theme in the former has an atomic internal structure, while in the latter it is complex. Similarly to English, this contrast gives rise to an aspectual difference such that (15a) is punctual, whereas (15b) is durative. Evidence for this comes from the different interpretations that are assigned to the predicates in the presence of the time point adverbial *öt órakor* ‘at five o’clock’. In particular, while in (15a) the temporal adverbial refers to the point in time when the event denoted by the predicate occurred, in (15b), it refers to the time of only a proper subpart of the denoted event, i.e. when the last passenger got off the train (for more on time point adverbials, see Section 2.2.1.2.2). In addition, the examples in (16), where the aspectual verb *befejez* ‘finish’ is characterized by allowing accomplishments and rejecting achievements (cf. Section 2.2.1.2.2), lend further support to the claim that the durative/punctual nature of the event denoted by the predicate *leszáll a vonatról* ‘get off the train’ is affected by the complexity of the theme.

(16) a. ??Az utas be-fejezte a le-szállást.
   the passenger Prt-finished the down-flying.Acc
   ‘The passenger finished getting off the train.’
   b. Az utasok be-fejezték a le-szállást.
   the passenger.Pl Prt-finished the down-flying.Acc
   ‘The passengers finished getting off the train.’

The data above show that aspectual properties like telicity and durativity are often a confluence of what various elements of the discourse contribute to the meaning of the predicate not only in languages like English, but also in Hungarian. The next question, which has long been posed in the literature, is what kind of aspectual classes verbal predicates fall into. As was briefly
discussed at the outset of this section, Vendler (1957), for instance, proposes a four-way
identifies three classes: states, processes, and events. Pustejovsky (1991, 1995) also
distinguishes between three basic event types: states, processes, and transitions. What these
three-way distinctions have in common is that they basically subsume Vendler’s
accomplishments and achievements under a single class, i.e. the class of events and the class
of transitions, respectively. More recently, a two-way classification has been proposed between
verbs describing an ordered set of changes, which is often referred to as a scalar change,
typically associated with result verbs, and verbs expressing an unordered change or a non-
scalar change, an important property of manner verbs, as argued by Rappaport Hovav and
Levin (2010). (For more on the encoding of manner and result in Hungarian verbal predicates,
see Section 2.4 and Chapter 6.) In what follows I focus on aspectual verb classes in Hungarian.
I begin by reviewing some diagnostic tests that are generally used to probe for the aspectual
properties of verbal predicates. Then, I offer an overview of the predicate types that have been
identified in the literature. I first discuss predicates that fit into the Vendlerian classes and then
I look into predicates that exhibit properties different from those of the Vendlerian types.

2.2.1.2 Diagnostic tests
In this section I review some diagnostic tests which are most commonly used to isolate
aspectual verb classes in Hungarian, in general, and to determine event structure properties, in
particular. First, in Section 2.2.1.2.1, I focus on tests diagnosing whether events are
decomposable or non-decomposable into subevents. Then, in Section 2.2.1.2.2, I discuss
compatibility with temporal adverbials and aspectual verbs so that I can lay the groundwork
for the aspectual classes of Section 2.2.1.2.3.

2.2.1.2.1 Diagnostic tests of event complexity
It is now widely accepted that certain events can be decomposed into various subevents like a
process subevent and a result state, to which various grammatical phenomena make reference.
For instance, certain manner adverbials give rise to various interpretations depending on which
subpart of the denoted event they refer to (cf. Pustejovsky 1991). Consider the examples from
Gyuris and Kiefer (2008: 236, (13)).

(17) a. János udvariasan el-távozott.
    János politely Prt-left
    ‘János left politely.’

    b. János udvariasan beszélt.
    János politely spoke
    ‘János spoke politely.’

In (17a), there is a scope distinction due to the adverbial udvariasan ‘politely’, which gives rise
to two different readings: (i) it is either the action of leaving to which udvariasan ‘politely’
refers, in which case the sentence means ‘János left in a polite manner’ or (ii) it is the entire
event culminating in a state in which János is no longer present over which the adverbial has
scope. In this latter case, the sentence is interpreted in a way that it was polite of János to leave.
This ambiguity suggests that the event denoted by the predicate is complex, i.e. it is
decomposable into temporally independent subparts, a process and a state. By contrast, in (17b),
the adverbial has scope over the action of speaking only, which in turn indicates that the predicate is associated with a simple event structure.

Another grammatical phenomenon that makes reference to the internal structure of events involves the use of anaphoric pronouns. This is illustrated in (18) taken from Gyuris and Kiefer (2008: 237, (15)).

(18) A fizikus meg-próbálta meg-keményíteni a fémet.
 the physicist Prt-tried Prt-harden.Inf the metal.Acc

Ez öt év után sikerült neki.
this five year after managed Dat.3Sg

‘The physicist tried to harden the metal. It took him five years to get it done.’

What is relevant regarding (18) is that the pronoun ez ‘this’ in the second sentence can only refer to a proper part of the event denoted by the verbal predicate in the first sentence. This can be explained just in case we associate the predicate with a complex event structure consisting of a causing subevent, i.e. a process part, on the one hand, and a caused subevent, i.e. a result state, on the other. The pronoun only refers to the result state that obtains at the culmination of the denoted event expressed by the first sentence.

Next, the assumption that certain events are characterized by having a complex internal structure enables us to account for the semantic relationship between sentences like (19a) and (19b).

 János Prt-painted the fence.Acc

‘János painted the fence.’

b. A kerítés le van festve.
 the fence down be.3Sg painted

‘The fence is painted.’

There is an entailment relationship between (19a) and (19b) such that the former entails the latter. This can be captured if it is assumed that (19a) is associated with an event that is decomposable into a process subevent and a result state, whereas (19b) describes a state such that it is the result state that constitutes the caused subevent of (19a). For more examples of this sort, see Kiefer (2006: 227). For more on how to represent the internal structure of events in a formally adequate manner, see Chapter 4.

Finally, I describe the almost-test, which is again used to distinguish between predicates associated with a simple event structure and predicates that have a complex event structure (see Dowty 1979; Pustejovsky 1991; Kiefer 2006; Gyuris and Kiefer 2008; Piñón 2008a). It has been claimed that the former characterizes activities like run and accomplishments like English eat an apple or Hungarian evett egy almát ‘ate an apple’, while the latter is characteristic of accomplishments like English ate himself dead or Hungarian halála ette magát ‘ate himself dead’ (see Levin and Rappaport Hovav 2004). The relevant property of the adverbial almost is that it can have scope over either the whole event denoted by the predicate or a proper subpart.

5 For more on this, see Chapter 7.
of that event. When modifying predicates having a simple event structure, *almost* has scope over the whole event, giving rise to the effect that the verbal predicate has a single interpretation such that the denoted event did not commence. By contrast, when occurring with accomplishments describing complex events, *almost* can have scope over either the whole event containing a causing event and a caused result state or only the caused result state. This has the effect that the verbal predicate can be assigned multiple readings. By way of illustration, I first provide Piñón's (2008a: 91, (5)) English examples in (20).

(20) a. Rebecca almost painted a picture.
   counterfactual: Rebecca did not begin painting a picture.
   scalar: Rebecca did not finish painting a picture.

b. Rebecca almost painted pictures.
   counterfactual: Rebecca did not begin painting pictures.

In (20a), the adverbial *almost* gives rise to either a counterfactual reading such that Rebecca did not begin painting a picture, or a scalar reading such that Rebecca did not finish painting a picture (Rapp and von Stechow 1999). This variability does not characterize (20b), as in this case, the sentence can only mean that the activity denoted by the predicate did not commence. This suggests that a complex event structure is to be attributed to the former, where the adverbial has scope over the entire painting event or only the final state wherein the painting exists, and a simple event structure to the latter, where the adverbial can only pick out the entire event.

Also relevant to this discussion is the claim that accomplishments should not be attributed with a uniform characterization such that all have complex event structures, as was proposed in Pustejovsky (1991, 1995), among others. For instance, Rappaport Hovav and Levin (2001) and Levin and Rappaport Hovav (2004) argue that accomplishments like those containing reflexive objects as in *Kate screamed herself hoarse* denote events that are decomposable into a causing subevent (i.e. a process) and a caused result state, which are temporarily independent, whereas others like *The pond froze solid* are associated with a simple event structure. The latter class of accomplishments is further illustrated by predicates denoting the consumption of an individual like *ate an apple* and *drank a beer* and expressions like *read a book* or *memorized a poem*. According to Levin and Rappaport Hovav (2004), a common aspectual property of predicates like *ate an apple* and *read a book* is that in each case, although the events the predicates denote involve two subevents conceptually (the event of consumption and the disappearance of an apple in the case of *ate an apple* and the event of scanning a book and the event of forming a mental representation of a book in the case of *read a book*), from the point of view of the grammar, it is best to analyze the event structure of such predicates as simple by virtue of the fact that the two subevents are temporally dependent, unlike in the case of accomplishments like *Kate screamed herself hoarse*. See also Chapter 7 for more on how event complexity has been invoked in analyses of non-culmination across languages.

This analysis has also been proposed for Hungarian predicates like *evett egy almát ‘ate an apple’*, which contrast with predicates like *megevett egy almát ‘ate (up) an apple’* in that the latter can be argued to be associated with a complex structure (Pethő and Kardos 2014). Here I provide a single argument for this proposal by using the *majdnem ‘almost’*-test to probe for event complexity. Consider the examples from Pethő and Kardos (*ibid.*).
The example in (21a) receives a single reading such that the activity of eating did not commence, whereas (21b) has multiple interpretations such that it is either the case that János did not begin eating an apple or that he did not finish it. This can be explained if we attribute a simple event structure to (21a) and claim that the adverbial has scope over the entire event, and a complex event structure to (21b), where majdnem *almost* can pick out either the entire event or only the final state corresponding to a state of affairs in which the apple is gone. For more on the *almost*-test in Hungarian with particle verbs and also with verbs appearing with pseudo-objects like egyet ‘one.Acc’, see Chapter 3.

Having reviewed some tests which are aimed at determining whether or not events expressed by verbal predicates can be decomposed into various subevents, I now turn to some other aspectual tests, which check compatibility with temporal adverbials and aspectual verbs. This is necessary since, following Kiefer (2009), I will mainly rely on these tests in the characterization of various verb classes in Hungarian.

2.2.1.2.2 Diagnostic tests with temporal adverbials and aspectual verbs

Perhaps the most common diagnostics that linguists use to determine a verbal expression’s aspectual class membership are those examining compatibility with various temporal adverbials. In the Hungarian aspectual literature, Kiefer (2006, 2009), for instance, distinguishes between five temporal adverbials in his characterization of Hungarian verb classes, in general, and that of the internal structure of events described by various verbal predicates, in particular. As for the latter, Kiefer assumes three types of subevents, namely states, activities or processes and punctual events, following Engelberg (2000). In what follows, I first review the five temporal adverbial tests discussed in Kiefer (2006, 2009) and briefly address what some of these tests tell us about event structure.

I begin with the *X idő alatt* ‘in X amount of time’ test, which I illustrate in (22).

(22) *alatt* ‘in’-adverbials
a. Kati 10 perc alatt ki-sétált az állomásra.  
Kati 10 minute under Prt-walked the station.Sub  
‘Kati walked to the station in 10 minutes.’

b. János egy év alatt két házat épített.  
János a year under two house.Acc built  
‘János built two houses in a year.’

c. Mari egy perc alatt észrevette az ajándékot.  
Mari a minute under noticed the gift.Acc  
‘Mari noticed the gift in a minute.’

d. Károly két perc alatt meg-találta a kulcsot.  
Károly two minute under Prt-found the key.Acc  
‘Károly found the key in two minutes.’

e. *Sári egy óra alatt futott.  
Sári an hour under ran  

f. *Feri 10 perc alatt táncolt.  
Feri 10 minute under danced  

g. *Kati öt perc alatt utálta Jánost.  
Kati five minute under hated János.Acc  

h. *Péter egy óra alatt szerette Alizt.  
Péter an hour under loved Aliz.Acc  

As is clear from the examples above, *alatt ‘in’-adverbials are compatible with accomplishments like (22a) and (22b) and achievements like (22c) and (22d) and they are incompatible with activities like (22e) and (22f) and states like (22g) and (22h). In each of the first four examples, the adverbial refers to the amount of time that was necessary for the goal point lexicalized in the predicate to be reached. For instance, in (22b), it is one year that was necessary for the two houses to come into existence, while in (22d), it was two minutes that was necessary for Károly to end up in a state in which he had the key. An important difference between accomplishments and achievements is that whereas the process that leads to the attainment of a final state constitutes part of the event structure of the former, it is not part of the latter. What falls out of this is that the predicates that are compatible with *alatt ‘in’-adverbials share the property of having a result state component. This is the goal point where the events that these predicates express culminate.

Second, I illustrate the X időn át ‘for X amount of time’-test. The adverbials that are used in this test come in various forms, as shown in (23).
(23) át ‘for’-adverbials

a. Mari éveken át élt külföldön.
   Mari year.Pl.Sup through lived abroad
   ’Mari lived abroad for years.’

b. Feri évekig gyűlölte az apját.
   Feri year.Pl.Ter hated the father.Poss.Acc
   ’Feri hated his father for years.’

c. Anna órákon keresztül énekelt.
   Anna hour.Pl.Sup through sang
   ’Anna sang for hours.’

d. János két napot dolgozott.
   János two day.Acc worked
   ’János worked for two days.’

The examples above show that the adverbials of this test, e.g. éveken át ‘for years’, évekig ‘for years’, órákon keresztül ‘for hours’, and két napot ‘for two days’, are compatible with states like (23a) and (23b) and activities like (23c) and (23d). All of these adverbials describe the temporal extent of the event, which can be a process or a state expressed by the predicate.

Third, I discuss time point adverbials like hat órakor ‘at six o’clock’ in (24a) and öt órakor ‘at five o’clock’ in (24b).

(24) Time point adverbials

a. Sári hat órakor el-tört egy vázát.
   Sári six hour.Tmp Prt-broke a vase.Acc
   ’Sári broke a vase at six o’clock.’

b. Mari öt órakor meg-halt.
   Mari five hour.Tmp Prt-died
   ’Mari died at five o’clock.’

What these predicates have in common is that they all express momentaneous events which are associated with a result state, e.g. the state in which the vase was broken in (24a) and the state in which Mari was dead in (24b). The adverbials hat órakor ‘at six o’clock’ and öt órakor ‘at five o’clock’ express at which point in time the events denoted by the respective predicates occurred. Gyuris and Kiefer (2008: 257) point out that time point adverbials are also compatible with punctual predicates that do not express a change of state. For illustration, consider (25).
    Mari five hour.Tmp Prt-shouted
    ‘Mari shouted at five o’clock.’

    b. Kati öt órakor fel-sóhajtott.
    Kati five hour.Tmp Prt-sighed
    ‘Kati sighed at five o’clock.’

In addition, accomplishments can also be modified by time point adverbials. In this case, however, it is not the time of the entire event that the adverbial refers to, as in (24) and (25), but only a proper part of it.

(26) a. Károly hat órakor meg-nézte a híradót.
    Károly six hour.Tmp Prt-watched the news.Acc
    ‘Károly watched the news at six o’clock.’

    b. János délben meg-írt egy emailt.
    János noon.Ine Prt-wrote an email.Acc
    ‘János wrote an email at noon.’

The time point adverbials in these examples refer to the initial subpart of the denoted events. That is, (26a) and (26b) can only be interpreted in a way that Károly started watching the news at six o’clock and János started writing an email at noon, respectively. (For more examples, see Section 2.2.1.3.3).

The fourth test that Kiefer (2006, 2009) uses in his characterization of aspectual classes and event structure properties is the test checking compatibility with adverbials denoting the length of a result state.

(27) Adverbials denoting the length of a result state

    a. János 10 percre ki-futott a kertbe.
    János 10 minute.Sub Prt-ran the garden.Ill
    ‘János ran into the garden for 10 minutes.’

    b. Kati 10 percre fel-szaladt az emeletre.
    Kati 10 minute.Sub Prt-ran the floor/story.Sub
    ‘Kati ran upstairs for 10 minutes.’

The examples in (27a) and (27b) both describe events that contain a process that leads to some result state. In each case, the adverbial 10 percre ‘for the period of 10 minutes’ modifies the result state in a way that it describes the interval during which this state obtains. Importantly, it is not all predicates associated with a process and a result state that are compatible with this type of adverbial, as illustrated in (28a) and (28b), which I took from Gyuris and Kiefer (2008: 261, (83c)) and Kiefer (2009: 255, (27b)), respectively.
(28) a. *Tibor egy napra ki-mosta a ruhát.  
    Tibor a day.Sub Prt-washed the dress.Acc

b. *Fél órára ki-vasalta az ingé.  
    half hour.Sub Prt-ironed the shirt.Poss.Acc

These data show that, although the adverbials of this test do not allow us to identify result states in general, once we know that a predicate is compatible with an adverbial like 10 percre ‘for the period of 10 minutes’, egy napra ‘for the period of a day’ and fél órára ‘for the period of half an hour’, we can conclude that there is a result state component in the event structure of this predicate (Kiefer 2009: 255).

Fifth, Kiefer also discusses temporal adverbials that describe an endpoint relative to a state or a process.

(29) Adverbials denoting an endpoint relative to a state or a process

a. János tegnapig gyűlölte Annát.  
    János yesterday.Ter hated Anna.Acc  
    ‘János hated Anna until yesterday.’

b. Éjfélíg el-borozgatott.  
    midnight.Ter Prt-drink_wine_at_a_leisurely_pace  
    ‘S/he drank wine at a leisurely pace until midnight.’

c. Éjfélíg el-dolgozgatott.  
    midnight.Ter Prt-worked_at_a_leisurely_pace  
    ‘S/he worked at a leisurely pace until midnight.’

In (29a), the adverbial tegnapig ‘until yesterday’ expresses the point in time until which the state denoted by the verbal predicate gyűlölte Annát ‘hated Anna’ obtained, whereas éjfélíg ‘until midnight’ in (29b) and (29c) describes the point in time until which the process expressed by elborozgat ‘drink wine at a leisurely pace’ and eldolgozat ‘work at a leisurely pace’, respectively, lasts. Kiefer (2009: 256) points out an interesting property of elborozgat ‘drink wine at a leisurely pace’ and eldolgozat ‘work at a leisurely pace’: It is only adverbials like éjfélíg ‘until midnight’ that are perfectly acceptable with these verbs. At ‘for’-adverbials, as in (30a), are rather odd, while alatt ‘in’- adverbials are absolutely ungrammatical, as shown in (30b).

(30) a. ??Őt órán át el-dolgozgatott.  
    five hour.Sup through Prt-worked_at_a_leisurely_pace

b. *Őt órá alatt el-dolgozgatott.  
    five hour under Prt-worked_at_a_leisurely_pace

Finally, I close this section with a brief description of the test checking compatibility with aspectual verbs like elkezd ‘begin’ and befejez ‘finish’, a criterion that can be used to probe for the aspectual property of durativity. For illustration, consider the examples below, where (31a) is from Kiefer (2006: 265, (18b)).
2.2.1.3 Aspectual classes

Now that we have reviewed various aspectual diagnostics, we are ready to isolate different aspectual classes in Hungarian. This is what follows in this section, which builds on Kiefer (2006, 2009). I first discuss the well-known Vendlerian classes of states, activities, accomplishments, and achievements, and then I also look into predicates that do not fall into any of these classes.

2.2.1.3.1 States

As was mentioned in Section 2.2.1, stative predicates are durative and lacking in dynamicity. They are also characterizable by the subinterval property, i.e. they hold for any subpart of the whole time interval associated with them (cf. Dowty 1986). For example, the predicate in (33a) applies to the time interval between June and August and any subinterval of that interval (e.g. the interval between June and July), while (33b) expresses a state that holds for the life time of Anna and any subinterval of it (e.g. her childhood).
(33) a. János júniustól augusztusig Londonban élt.
   János June.Abl August.Ter London.Ine lived
   ‘János lived in London from June to August.’

   b. Anna egész életében szerette Jánost.
   Anna whole life.Poss.Ine loved János.Acc
   ‘Anna loved János all her life.’

As for their compatibility with temporal adverbials, they can occur with át-adverbials and time point adverbials, but they resist alatt-adverbials and adverbials describing endpoints given their homogeneous internal structure.

(34) a. János egy napig/ öt órakor tudta a választ.
   János a day.Ter/ five hour.Tmp knew the answer.Acc
   ‘János knew the answer for a day/at five o’clock.’

   b. *János egy nap alatt/ egy napra tudta a választ.
   János a day under/a day.Sub knew the answer.Acc

   Interestingly, they are also generally incompatible with aspectual verbs like elkezd ‘begin’ despite their being durative.

(35) a. *József el-kezdte tudni a választ.
   József Prt-began know.Inf the answer.Acc

   b. **József el-kezdett Londonban élni.
   József Prt-began London.Ine live.Inf

Further, states cannot be viewed progressively, as illustrated in (36).

(36) a. *János éppen tudta a választ, amikor meg-csőrrent a telefon.
   János just knew the answer.Acc when Prt-rang the telephone

   b. *János éppen szerette Mari, amikor Kati be-lépett a szobába.
   János just loved Mari.Acc when Kati Prt-entered the room.Ill

2.2.1.3.2 Activities

Activities are similar to states in that they have the subinterval property, they are durative and void of an inherent endpoint. They also pattern with states in the respect that they are compatible with át-adverbials and time point adverbials, but resist alatt-adverbials and adverbials describing endpoints.
(37) a. János egy óráig/ öt órákor sétált.
    János an hour. Ter/five hour. Tmp walked
    ‘János walked/was walking for an hour/at five o’clock.’
   
   b. *János egy óra alatt/ egy órára sétált.
    János a hour under/an hour. Sub walked

In contrast to states, however, they are compatible with aspectual verbs like elkezd ‘begin’, as evidenced by (38).

(38) a. Károly el-kezdett sétálni.
    Károly Prt-began walk. Inf
    ‘Károly began walking.’
   
   b. Éva el-kezdett dolgozni.
    Éva Prt-began work. Inf
    ‘Éva began working.’

A number of activities are also compatible with the adverbial almost, which diagnoses a simple event structure for them given that they receive a single interpretation in the environment of this adverbial (see Section 2.2.1.2.1).

(39) a. Mari majdnem futott.
    Mari almost ran
    ‘Mari almost ran.’
    i.e. ‘Mari didn’t begin running.’
   
   b. Sára majdnem nevetett.
    Sára almost laughed
    ‘Sára almost laughed.’
    i.e. ‘Sára didn’t begin laughing.’
   
   c. *Péter majdnem dolgozott.
    Péter almost worked

The examples above show that (i) activities modified by almost receive a counterfactual interpretation only and that (ii) for some reason not all activities tolerate this adverbial.

2.2.1.3.3 Accomplishments and achievements

Accomplishments and achievements are similar in that they are both dynamic and have an inherent endpoint (i.e. they are telic). They are also different in that accomplishments are durative, whereas achievements are momentary. These properties have a number of grammatical reflexes, which I now briefly review. First, neither type of predicates has the subinterval property. Consider (40).
(40) a. Mari el-olvasott egy könyvet.
Mari Prt-read a book.Acc
‘Mari read a book.’

b. Sára meg-találta a kulcsot.
Sára Prt-found the key.Acc
‘Sára found the key.’

In (40a) and (40b) the predicates do not apply to any proper subpart of the interval with which they are associated. For example, if Mari read a book from 6 p.m. to 9 p.m., one cannot truthfully say (40a) at 8 p.m.

Second, both types of predicates are compatible with alatt-adverbials, time point adverbials and adverbials describing endpoints, but they do not admit át-adverbials.

(41) a. János egy óra alatt/öt órakor/öt órára el-olvasott egy cikket.
János an hour under/five hour.Tmp/five hour.Sub Prt-read an article.Acc
‘János read an article in an hour/at five o’clock/by five o’clock.’

b. *János egy órán át el-olvasott egy cikket.
János a hour .Sup through Prt-read an article.Acc

(42) a. János egy óra alatt/öt órakor/öt órára meg-találta a kulcsot.
János an hour under/five hour.Tmp/five hour.Sub Perf-found the key.Acc
‘János found the key in an hour/at five o’clock/by five o’clock.’

b. *János egy órán át meg-találta a kulcsot.
János a hour .Sup through Prt-found the key.Acc

Importantly, accomplishments like (41a) and achievements like (42a) are interpreted in different ways in the environment of adverbials like egy óra alatt ‘in an hour’, öt órakor ‘at five o’clock’, and öt órára ‘by five o’clock’. Alatt-adverbials refer to the time interval of the denoted eventuality in the case of accomplishments, while, in the case of achievements, they describe the time interval that precedes the eventuality expressed by the predicate. Adverbials like öt órakor ‘at five o’clock’ denote a time point that corresponds to a state of affairs where the eventuality commences in the case of accomplishments and they describe time points at which achievements occur. Adverbials like öt órára ‘by five o’clock’, on the other hand, express points in time that correspond to a state of affairs where the endpoint inherent in the predicate is attained. That is, in (41a) János reached the end of the article and in (42a) János had the key at five o’clock. An important difference between the two types of predicates when it comes to these adverbials is that the process that it took to get to this endpoint is inherent in the meaning of accomplishments but not that of achievements.

Third, whereas achievements receive a single interpretation in the presence of almost, accomplishments like (43b) are ambiguous.

(43) a. Sára majdnem meg-találta a kulcsot.
Sára almost Prt-found the key.Acc
‘Sára almost found the key.’

i.e. Sára didn’t find the key.
b. Mari majdnem el-olvasta a verset.
Mari almost Prt-read the poem.Acc
‘Mari almost read the poem.’
i.e. Mari didn’t begin reading the poem.
or Mari didn’t finish reading the poem.

As was illustrated in Section 2.2.1.2.1, it is not all accomplishments that receive multiple interpretations with almost. Examples like (21a), repeated here as (44), receive a counterfactual interpretation only.

(44) János majdnem evett egy almát.
János almost ate an apple.Acc
‘János almost ate an apple.’
i.e. János did not begin eating an apple.

As mentioned, the fact that such predicates receive a single interpretation is an indication of their having a simple event structure, in which respect they pattern with activities, whereas the semantic ambiguity in (43b) may be a sign of event complexity.

Fourth, accomplishments and achievements display a distinct behavior when viewed progressively. While accomplishments are generally compatible with the progressive, achievements are not possible with this aspect. This point is illustrated in (45a) and (45b).

(45) a. Kati éppen mászott fel egy fára, amikor meg-látott egy kutyát.
Kati just climbed Prt a tree.Sub when Prt-saw a dog.Acc
‘Kati was climbing up a tree when she saw a dog.’

b. *Kati éppen érte el a hegyesúcsot.
Kati just reached Prt the hilltop.Acc

Gyarmathy (2015: 176) observes that some verbs that express punctual events can actually appear in the progressive on the condition that they have an extended incremental argument. This is shown in (46), which I took from Gyarmathy (2015: 181, (3.36)).

(46) A vonat éppen érkezett be az állomásra.
the train just arrived Prt the station.Sub
‘The train was arriving at the station.’

In this example the extended nature (i.e. the complex internal structure) of the theme a vonat ‘the train’ gives rise to the interpretation that there has been an extended change at the termination of which the train was at the station. This enables the listener to view the eventuality progressively.

A final property with respect to which accomplishments and achievements differ is their compatibility with aspectual verbs like elkezd ‘begin’ and befejez ‘finish’. Whereas the former
tolerate these verbs, however redundant they are in some cases, the latter cannot occur in such environments (cf. Section 2.2.1.2.2).

2.2.1.3.4 Semelfactives

A fifth class that we can isolate in Hungarian, similarly to many other languages, is the class of semelfactives (see Smith 1991/1997). As is well known, a characteristic property of these predicates is that they can be interpreted iteratively, in which case they pattern with activities, or instantaneously, in which case they resemble achievements. In English, for instance, the adverbials *once* and *for 10 minutes* can reinforce these two types of interpretation. Consider (47).

(47) a. The camera flashed once.
    b. The camera flashed for 10 minutes.

Just like achievements, (47a) expresses a momentary situation, whereas (47b) has a process-type interpretation, which brings this example in line with activities. As noted by Gyarmathy (2015: 180), the Hungarian counterparts of verbs like *flash* often come in two different morphological forms depending on the kind of situation that they describe. I illustrate this with *(fel-)*villan ‘flash once’ and villog ‘flash repeatedly’ in (48), where in (48a) the pseudo-object egyet ‘one.Acc’ indicates the availability of a single-event interpretation. (For more on pseudo-objects, see Section 2.2.2.2 and Chapter 3).

(48) a. A fényképezőgép fel-villant egyszet/villant egyet.
    the camera Prt-flashed once flash.Past one.Acc
    ‘The camera flashed once.’

    b. A fényképezőgép 10 percig villogott.
    the camera 10 minute.Ter flashed
    ‘The camera flashed for 10 minutes.’

The example in (48a) contrasts with (48b) in that the former describes a momentary situation and cannot be interpreted iteratively, whereas the latter has an iterative interpretation. A similar pattern is characteristic of the verb pairs *(meg)*csillan ‘sparkle once’ – csillog ‘sparkle repeatedly’, csattan ‘snap once’ – csattog ‘snap repeatedly’, and kattan ‘click once’ – kattog ‘click repeatedly’, as shown in (49), (50), and (51).
At the same time, some verbs in this class can also be ambiguous, similarly to their English counterparts. I exemplify this with (52), which I took from Kiefer (2009: 247, (12a) and (12b)).

(52) a. Két órakor tüsszentett.
   two hour.Tmp sneezed
   ‘He sneezed at two o’clock.’

   b. Két órán át tüsszentett.
   two hour.Sup through sneezed
   ‘He sneezed for two hours.’

The time point adverbial két órakor ‘at two o’clock’ diagnoses a single-event interpretation for (52a), while the át-adverbial in (52b) brings out the iterative interpretation.

An important difference between achievements like elérí a hegycsúcsot ‘reach the hilltop’ and semelfactives like csattan ‘snap’ in expressing punctual events, they are also associated with a subsequent state, as evidenced by their compatibility with adverbials describing the length of this state. Consider (53).

2.2.1.3.5 Other predicates

In Kiefer (2009: 245) predicates like megáll ‘stop’, felszáll a vonatra ‘get on the train’ and leszáll a vonatról ‘get off the train’ also form an individual class. The reason for this is that, although members of this class are similar to achievements like eltörik ‘break’ and semelfactives like csattan ‘snap’ in expressing punctual events, they are also associated with a subsequent state, as evidenced by their compatibility with adverbials describing the length of this state. Consider (53).
In (53) the temporal adverbial describes the length of the state that corresponds to the state of affairs in which the bus came to a halt. This kind of modification is not possible with achievements and semelfactives, as shown in (54).

(54) a. *János két percre el-tört egy vázát.
János two minute.Sub Prt-broke a vase.Acc  
   ‘János broke a vase for two minutes.’

   b. *Az ostor két percre csattant egyet.
   The whip two minute.Sub snapped one.Acc  
   ‘The whip snapped one for two minutes.’

Yet another group of predicates that Kiefer (2009: 249) treats as separate from those above are predicates like végigül ‘sit through’. Consider (55).

(55) a. Kati végig-ülte a szemináriumot.
   Kati Prt-sat the seminar.Acc  
   ‘Kati sat through the seminar.’

   b. Kati végig-ette a menüt.
   Kati Prt-ate the menu.Acc  
   ‘Kati ate through the menu.’

These predicates are special in that they do not admit any temporal adverbial listed in Section 2.2.1.2.2. This is illustrated in (56).

(56) a. *Kati végig-ülte a szemináriumot egy óra alatt/egy óráig/
   Kati Prt-sat the seminar.Acc an hour under/an hour.Ter/
   egy órakor/egy órára.
   an hour.Tmp/an hour.Sub  
   
   b. *Kati végig-ette a menüt egy óra alatt/egy óráig/
   Kati Prt-ate the menu.Acc an hour under/an hour.Ter/
   egy órakor/egy órára.
   an hour.Tmp/an hour.Sub

Kiefer (ibid.) points out that the incompatibility above is due to the fact that the object argument serves as a temporal modifier in these sentences and there is simply no room left for another such modifier.

2.2.2 The aspectual role of verbal particles, objects, and pseudo-objects

I devote the remainder of Section 2.2 to a more detailed characterization of the aspectual role of verbal particles and objects in Hungarian. In Section 2.2.2.1 I first examine particles more
closely, and then, in Section 2.2.2.2., I provide insights into how objects including quasi-objects determine the aspectual make-up of verbal predicates.

2.2.2.1 Verbal particles
Verbal particles have long been at the forefront of attention in Hungarian linguistics for posing interesting questions regarding their structural and semantic properties. They have been analyzed as perfectivizing (Wacha 1989; Kiefer 2006, 2015; Kiefer and Ladányi 2000) or telicizing elements (É. Kiss 2005, 2008a; Kardos 2012, 2016, 2019; Gyarmathy 2015; Farkas and Kardos 2019a, b; Kardos and Farkas 2022). In this section I will review arguments for the latter, more recent proposal. The role of verbal particles in the encoding of various aktionsarten will be taken up in Section 2.3.

The gist of the first argument for the telicizing role of verbal particles lies in the fact that, as was mentioned in Section 2.2.1.1, Hungarian dynamic predicates (more precisely, non-creation/non-consumption predicates), are generally either strictly atelic or telic, i.e. they do not show signs of aspectual variability, unlike, for instance, certain degree achievements and surface contact verbs in English (for more on this, see Chapter 7). The data in (12), repeated below as (57), suggest that it is particles like fel ‘up’ that serve as telicity marking elements, i.e. their presence in the sentence gives rise to a strictly telic interpretation and their absence yields invariable atelicity.

(57) a. Kati 10 percen át/*10 percen alatt melegített egy tányért.  
Kati 10 minute.Sup through/10 minute under warmed a plate.Acc
‘Kati warmed a plate for 10 minutes.’

b. Kati 10 percen alatt /*10 percen át  fel melegített egy tányért. 
Kati 10 minute under /10 minute.Sup through Prt-warmed a plate.Acc
‘Kati warmed a plate in 10 minutes.’

The example in (57a) above contrasts with its English counterpart from (6a), repeated below as (58), in that the latter can receive either a telic or an atelic reading depending on contextual factors.

(58) Kate warmed a plate for/in 10 minutes.

As was noted earlier in this chapter, the example above can be interpreted in a way that the affected argument a plate reaches a contextually salient degree in temperature at the termination of the denoted event or, in the absence of contextual cues, the predicate is understood as expressing a warming event in the course of which the temperature of the plate increases to some extent.

A second argument for the telicizing nature of verbal particles like el and meg in (59b) and (60b) has to do with the semantic effects that these elements impose on the affected argument. Specifically, there is a constraint in Hungarian such that in the presence of such verbal particles the theme must be specific about its quantity, as illustrated below. For further examples, see Szili (2001) and É. Kiss (2005, 2008a), among others.
(59) a. *Éva el-olas toknyvet.
Éva Prt-read book.Acc
b. Éva el-olas egy konyvet.
Éva Prt-read a book.Acc
‘Éva read a book.’

Mari Prt-ate apple.Pl.Acc
b. Mari meg-evett három almát.
Mari Prt-ate three apple.Acc
‘Mari ate three apples.’

Bare singulars like konyvet ‘book’ and bare plurals like almákat ‘apples’, which have cumulative reference, cannot occur in the presence of particle verbs like elolvas ‘read’ and megeszik ‘eat’. For more on the cumulative reference of bare nominals, see Maleczki (to appear). These verbs require internal arguments that supply specific information about the quantity of their referent, as in the case of egy konyvet ‘a book’ and három almát ‘three apples’. This restriction also characterizes predicates containing resultative predicates like darabokra ‘into pieces’ in (61) and templommá ‘into a church’ in (62).

(61) a. *Kati darabokra tört poharat.
Kati pieces.Sub broke glass.Acc
b. Kati darabokra tört egy poharat.
Kati pieces.Sub broke a glass.Acc
‘Kati broke a glass into pieces.’

the pope church.Tra turned chapel.Pl.Acc
b. A pápa templomma alakított három kápolnát.
the pope church.Tra turned three chapel.Acc
‘The pope turned three chapels into a church.’

The resultative phrases above are similar to the verbal particles el and meg in (59) and (60) in that the former also impose semantic constraints on the internal arguments such that they must supply specific information as to the quantity of their referent. Notice that in English, for instance, verbal particles like up and resultative expressions like into pieces do not restrict the quantificational properties of the internal argument. Consider (63). See also Chapter 7 for more on this.

(63) a. Kate warmed up plates for 10 minutes/*in 10 minutes.
b. Kate ate up apples for 10 minutes/*in 10 minutes.

(64) a. John broke glasses into pieces for 10 minutes/*in 10 minutes.
b. The pope turned chapels into a church for 10 years/*in 10 years.
The internal arguments in the examples above refer cumulatively and hence they cannot serve as delimiters to the denoted event. This gives rise to the effect that it is only an atelic interpretation that arises in each case, as evidenced by the acceptability of the for-adverbials and the unacceptability of the in-adverbials.

Finally, a third piece of evidence for the telicizing role of verbal particles is that they are generally obligatory in predicates expressing a momentary change, as illustrated in (65) and (66). For more illustration of this phenomenon, see É. Kiss (2008a: 27).

   Mari died

   b. Mari meg-halt.
   Mari Prt-died
   ‘Mari died.’

(66) a. *Éva tört egy vázát.
   Éva broke a vase.Acc

   b. Éva el-tört egy vázát.
   Éva Prt-broke a vase.Acc
   ‘Éva broke a vase.’

The data above exemplify situations that are associated with an inherent endpoint. In (65) this endpoint corresponds to a state of affairs where Mari is dead, whereas in (66) it is a state wherein the vase is broken. Such situations are generally expressed by predicates containing a particle verb (or a resultative construction, as in (61b)). The omission of the verbal particle yields an ungrammatical sentence, as shown in (65a) and (66a). This and the data above suggest that verbal particles like meg, el and fel lexicalize the goal point inherent to the telic situations expressed.

Potential counterexamples to this claim are provided in (67), where the achievements tör egy darab kenyeret ‘break a piece of bread’ and szakit egy darab papírt ‘tear a piece of paper’ are shown to be grammatical in the absence of a verbal particle.

(67) a. Éva tört egy darab kenyeret.
   Éva broke a piece bread.Acc
   ‘Éva broke a piece of bread (off of a loaf of bread).’

   b. Kati szakitott egy darab papírt.
   Kati tore a piece paper.Acc
   ‘Kati tore a piece of paper (off of a larger piece of paper).’

The situations expressed by (67a) and (67b) contrast with (65b) and (66b) in that the former express creation events, while the latter express change-of-state events. This has important consequences regarding the grammatical behavior of these predicates. Specifically, it has been observed (É. Kiss 2005, 2008a; Kardos 2012, 2019) that while change-of-state predicates generally require a particle or a resultative expression to receive a telic interpretation, in the case of creation and consumption predicates a quantized theme will be sufficient for telicity. Some more examples illustrate this in (68).
(68) a. János egy év alatt épített egy házat.
   János  a  year  under  built  a  house. Acc
   ‘János built a house in a year.’

   b. Sára egy óra alatt süttött egy kalácsot.
   Sára an hour under baked a sweet bread. Acc
   ‘Sára baked a loaf of sweet bread in an hour.’

Compatibility with the temporal adverbials egy év alatt ‘in a year’ and egy óra alatt ‘in an hour’ shows that the quantized themes egy házat ‘a house’ and egy kalácsot ‘a loaf of sweet bread’ satisfy the requirements for telicity. Interestingly, these creation predicates, which both contain indefinite themes, have different interpretations when they appear with a particle. Specifically, épít ‘build’ and sütt ‘bake’ contrast with felépít ‘build’ and megsült ‘bake’ in that the latter require themes that are linked to an entity in the previous discourse (cf. Kálmán 1995: 227). I illustrate this with (69), which I adopted from É. Kiss (2005: 69, (29)).

(69) A háziasszony egész délelőtt a konyhában tüsténkedett,
   the housewife whole morning in the kitchen. ine worked
   és kettő meg-süttött egy kalácsot.
   and two. Sub Prt-baked a sweet bread. Acc
   ‘The housewife was working in the kitchen the whole morning, and by two she baked a loaf of sweet bread.’

Aspectually, megsült egykalácsot ‘baked a loaf of sweet bread’ in (69) is interpreted telically, just like (68b), but, whereas the former expresses the coming into existence of a loaf of sweet bread that is familiar from context, (68b) describes a situation where the sweet bread is an independent entity, i.e. it is not discourse-linked.

At this point it is fitting to note that not all verbal particles have an obligatory telicizing effect in Hungarian. As has been pointed out by Kiefer (2006), among others, predicates containing particle verbs like intransitive felszolgál ‘serve’ and intransitive felolvas ‘read out loud’ do not necessarily receive a bounded interpretation. This is illustrated in (70).

(70) a. Kati egész nap fel-szolgált.
   Kati whole day Prt-served
   ‘Kati served guests all day.’

   b. Péter egész nap fel-olvasott.
   Péter whole day Prt-read
   ‘Péter read out loud texts all day.’

In addition to these, particles sometimes accompany verbs expressing stative situations, which are again void of an inherent endpoint. This is shown in (71).
(71) Az asszony el-viselte a férje hűtlenségét.
    the woman Prt-bore the husband.Poss infidelity.Poss.Acc
    ‘The woman tolerated her husband’s infidelity.’

As was stated at the outset of this chapter, event structure properties like boundedness and durativity can be calculated compositionally in Hungarian. So far we have seen how verbal particles, and to some extent, resultative predicates determine what aspectual interpretations may arise. Next I will discuss the aspectual contribution of arguments. Before that, however, I close this section with the proposal that Hungarian verbal particles have crucial effects on the complexity of the event denoted by the predicate such that they introduce a subevent into the event structure of the head verb thereby turning verbs associated with a simple event structure into verbs having a complex event structure containing a causing subevent (a process) and a caused subevent (a result state) (Pethő and Kardos 2014). Given the Argument-Per-Subevent Condition, according to which for each subevent in the event structure of a verb there must be an argument XP in the syntax (Rappaport Hovav and Levin 2001), this property of verbal particles explains why in their presence the theme argument cannot remain unexpressed, as illustrated in (72) and (73).

(72) a. Kati (egész nap) olvasott (egy könyvet).
     Kati whole day read a book.Acc
     ‘Kati read (a book) (all day).’
     b. Kati el-olvasott *(egy könyvet).
     Kati Prt-read a book.Acc

(73) a. Mari egész nap evett.
     Mari whole day ate
     ‘Mari ate all day.’
     b. Mari meg-evett *(egy tortát).
     Mari Prt-ate a cake.Acc

Whereas verbs like olvas ‘read’ and eszik ‘eat’ allow implicit objects, elolvas ‘read’ and megeszik ‘eat’ require their object to appear on the syntactic surface. If this requirement is not fulfilled, the sentence will be ill-formed, as in (72b) and (73b). Interestingly, a small set of particle verbs such as kitakarít ‘clean’ do allow implicit objects, as shown in (74), contra our expectations in light of the claim above.

(74) Kati ki-takarított.
     Kati Prt-cleaned
     ‘Kati cleaned (her house/her bedroom/*her shoes/*her car).’

A peculiar characteristic of the verb kitakarít ‘clean’ is that, unlike olvas ‘read’ and eszik ‘eat’, it allows the omission of conventional objects only, as is clear from the translation in (74), which may actually render this phenomenon independent of the omissibility of objects in (72a) and (73a). See also É. Kiss (2004, 2005) for the observation that verbs like kitakarít ‘clean’ and elmosogat ‘do the dishes’ express established and institutionalized activities. (For more on
this, see Németh T. and Bibok 2010.) Similar effects are observable in English, where the verb clean allows the omission of the object under very specific circumstances. Consider (75).

(75) It took Peter three hours to clean (his room/his house/*his shoes/*his car).

The effect of verbal particles on event complexity has other consequences as well. Specifically, the event template of expressions containing particle verbs cannot be further augmented with non-subcategorized arguments. In this respect they resemble English verbs like transitive break and open, which are assumed to be associated with a complex event structure. I illustrate this constraint on template augmentation (Rappaport Hovav and Levin 2001) first with the English example in (76), which I took from Levin and Rappaport Hovav (2005: 110, (34a)) and then with (77) from Hungarian, which is from Pethő and Kardos (2014).

(76) *My kids broke me into the poorhouse.

(77) *Az egér meg-evett egy lyukat a sajtba.
    the mouse Prt-ate a hole.Acc the cheese.Ill

This restriction does not apply to bare verbs like eszik ‘eat’, which have a simple event structure. This is shown in (78).

(78) Az egér evett egy lyukat a sajtba.
    the mouse ate a hole.Acc the cheese.Ill
    ‘The mouse ate a hole into the cheese.’

Finally, as demonstrated in Section 2.2.1.2.1, the almost-test also diagnoses a simple event structure for bare verbs like eszik ‘eat’ and a complex event structure for their counterparts containing a particle.

2.2.2.2 Objects and pseudo-objects

As mentioned in the previous sections, arguments can also figure into aspectual properties of predicates. Canonical examples illustrating this are verbs expressing the coming into existence or the disappearance of an entity. Consider (79) and (80).
In these examples the object arguments are all quantized and serve as delimiters to the denoted eventuality. Thus, these predicates can receive a telic interpretation, as evidenced by their compatibility with frame adverbials. By contrast, the bare singular and bare plural objects in (81) and (82), which refer cumulatively, do not measure out the respective events and thus the predicates in which they are contained receive an atelic interpretation.

(81) a. János egész nap kutyákat rajzolt.
    János whole day dogs.Pl.Acc drew
    'János drew dogs all day.'

  b. Kati egész délután levest főzött.
    Kati whole afternoon soup.Acc cooked
    'Kati cooked soup all afternoon.'

(82) a. Péter egész nap sört ivott.
    Péter whole day beer.Acc drank
    'Péter drank beer all day.'

  b. Anna egész nap fánkot evett.
    Anna whole day doughnut.Acc ate
    'Anna ate doughnuts all day.'

Another set of predicates for which the quantized nature of the object is sufficient for a telic reading to arise is exemplified in (83).
A common property that the predicates immediately above and those in (79) and (80) share is that they all express situations in the course of which an entity comes into existence or becomes available (cf. Szabolcsi 1986); they all represent the creation pattern. On the other hand, predicates like mos egy autót ‘wash a car’ in (84), which express change-of-state events, do not receive a bounded interpretation in the presence of a quantized object only. In order for such a reading to arise, a verbal particle like le ‘down’ or a resultative expression like tisztára ‘clean.Sub’ must appear in the sentence (ibid.). (See also Section 2.2.2.1.)

In contrast to created or consumed objects like those in (79) and (80), bounded objects in other predicate classes do not have a measuring-out function in Hungarian, unlike what is often observable in English, German, Dutch and Spanish. In other words, the quantized nature of the internal argument will not generally make verbal predicates telic in the verbal domain unless creation or consumption events are expressed. Consider the examples in (85), which are also discussed in Chapter 5.

The internal objects egy vaslemézt ‘an iron plate’ and egy szobát ‘a room’ do not allow the listener to determine endpoints to the hammering, cleaning and painting events in (85) despite [40]
the fact that they are specific about their quantity. In English, by contrast, a telic reading is easily available with such examples, as shown in (86).

(86) a. Sara hammered an iron plate for/in an hour.
    b. Péter cleaned a room in a day/?for a day.
    c. Richard painted a room in a day/?for a day.

The English counterparts of the examples in (85) can each receive a telic reading; in (86b) and (86c) this reading is clearly the preferred one.

A bounded interpretation of the denoted event can also arise thanks to the aspectual contribution of pseudo-objects like egyet ‘one.Acc’, as shown in (87), as also noted by Piñón (2001), Csirmaz (2008b), Farkas and Kardos (2019b) and Kardos and Farkas (2022).

(87) a. Táncoltunk egyet.
    danced.3Pl one.Acc
    ‘We had a dance.’
    b. Sétáltunk egyet.
    walked.3Pl one.Acc
    ‘We went for a walk.’

The interpretation of (87a) and (87b) is such that there is a certain period in time and we spent the largest subpart of this time dancing and walking, respectively (cf. Piñón 2001: 182). As discussed in detail in the next chapter, Kardos and Farkas (2022) argue that verbal predicates with egyet ‘one.Acc’ express telic, non-maximal situations in these and other similar examples due to an aspectual operator encoded in egyet ‘one.Acc’, which “picks out a contextually specified non-maximal subpart of the event in the denotation of the verbal predicate” (ibid. 25). The telic interpretation of these examples is difficult to diagnose given that these predicates do not tolerate frame adverbials like egy óra alatt ‘in an hour’, as shown in (88).

    an hour under danced.3Pl one.Acc
    b. *Egy óra alatt sétáltunk egyet.
    an hour under walked.3Pl one.Acc

Piñón (2001: 182, fn. 1) notes that a possible reason for the above incompatibility is that, similarly to egy óra alatt ‘in an hour’, egyet ‘one.Acc’ is a temporal adverbial diagnosing boundedness, and two temporal adverbials of the same type cannot appear in the sentence.

As originally observed by Kiefer (2015), there are two types of verbs that can occur with egyet ‘one.Acc’: intransitive activities like táncol ‘dance’ and sétál ‘walk’, whose aspectual structure is affected by egyet ‘one.Acc’ in a way that they end up being interpreted telically, as in (87), and semelfactives like tüsszent ‘sneeze’ and kacsint ‘wink’, as in (89).
(89) a. Kati tüsszentett egyet.
   Kati sneezed one.Acc
   ‘Kati sneezed once.’

   b. Mari kacsintott egyet.
   Mari winked one.Acc
   ‘Mari winked once.’

(89a) and (89b) express that, at some point in time, there was a single sneezing event and a
single winking event, respectively. By contrast, canonical transitive verbs and verbs allowing
implicit objects are incompatible with egyet ‘one.Acc’ interpreted as a pseudo-object. This is
shown in (90), where the predicates in (90a) and (90b) are well-formed with egyet as a real
object.

(90) a. *El-törtem/ Meg-ittam egyet.
    Prt-break.Past/ Prt-drink.1Sg one.Acc

   b. *Ittam/ettem egyet.
    drink.Past.1Sg/ate.1Sg one.Acc

Piñón (2001) argues that this follows from the fact that egyet ‘one.Acc’ contributes an internal
argument to the argument structure of verbs such that it occupies the object position in the
sentence. Since transitive verbs like eltör ‘break’ and megiszik ‘drink’ already have an internal
argument, there is simply no room for egyet in the argument structure of these verbs. A similar
reasoning is applicable to verbs with implicit objects if we assume that these verbs do have
both external and internal arguments, though the latter do not appear on the syntactic surface.
(For more on this, see Németh T. and Bibok 2010). This actually also explains why egyet
‘one.Acc’ is incompatible with complex predicates like levelet ír lit. ‘letter write’ and újságot
olvastam lit. ‘newspaper read’ and unaccusatives like vérzik ‘bleed’ and szenved ‘suffer’. Consider
the examples from Piñón (2001: 184, (8) and 185, (10a) and (10b)).

(91) a. *Mari levelet írt egyet.
    Mari letter.Acc wrote one.Acc

   b. *Újságot olvastam egyet.
    newspaper.Acc read.1Sg one.Acc

(92) a. *A katona vérzett egyet.
    the soldier bled one.Acc

   b. *A harcos szenvedett egyet.
    the fighter suffered one.Acc

As we will see in Chapter 3, on the analysis of Kardos and Farkas (2022), the impossibility of
the co-occurrence of the pseudo-object egyet ‘one.Acc’ and meg-type verbal particles follows
if we assume that egyet ‘one.Acc’ and meg-type particles compete for the same position, [Spec,
AspP], flanked by VP and vP in the Hungarian sentence. Further, the co-occurrence of
unaccusative verbs and egyet-type pseudo-objects is also ruled out since the pseudo-object
cannot receive accusative case in unaccusative structures. For more on egyet ‘one.Acc’-type objects and how they compare to the prefix po- in Polish, see Piñón (1994).

Similar to egyet ‘one.Acc’ are pseudo-objects like jót ‘good.Acc’ and nagyot ‘big.Acc’ in that they also give rise to bounded interpretations. Another common property is that jót ‘good.Acc’ and nagyot ‘big.Acc’ are also incompatible with temporal adverbials like egy óra alatt ‘in an hour’, as shown in (93).

   good.Acc/big.Acc danced.1Pl (*an hour under)
   ‘We had a good/long dance.’

   good.Acc/big.Acc walked.1Pl (*an hour under)
   ‘We had a good walk/went for a long walk.’

As Kiefer (2006: 56) notes, jót ‘good.Acc’ contributes to the predicate that the referent of the agent enjoyed the activity denoted by the verb for a good amount of time, whereas nagyot ‘big.Acc’ only adds that the referent of the agent spent an extended amount of time doing the activity denoted by the verb. Both these elements can also show up after the verb, but in this case they must be preceded by the indefinite article egy (cf. É. Kiss 2005: 70).

(94) a. Táncoltunk egy jót/nagyot.
   danced.1Pl a good.Acc/big.Acc
   ‘We had a good/long dance.’

   b. Sétáltunk egy jót/nagyot.
   walked.1Pl a good.Acc/big.Acc
   ‘We had a good walk/went for a long walk.’

Unergative verbs like táncol ‘dance’ and sétál ‘walk’ can also appear with pseudo-objects represented by reflexive pronouns in the presence of a verbal particle or a result predicate, as shown by É. Kiss (2005: 62). In such cases the predicates receive a telic interpretation. See also Section 2.4.
(95) a. Kati egy óra alatt ki-tántolta magát.
    Kati an hour under Prt-danced self.Acc
    ‘It took Kati an hour to dance until she has had enough.’

b. Kati egy óra alatt betegre táncołta magát.
    Kati an hour under sick.Sub danced self.Acc
    ‘Kati danced herself sick in an hour.’

(96) a. János egy óra alatt ki-sétált magát.
    János an hour under Prt-walked self.Acc
    ‘It took János an hour to walk until he has had enough.’

b. János egy óra alatt fáradtra sétált magát.
    János an hour under tired.Sub walked self.Acc
    ‘János walked himself tired in an hour.’

Similarly to most particle verbs, kitáncol lit. ‘out-dance’ and kisétál lit. ‘out-walk’ do not allow the omission of the object (ibid.). This point is illustrated in (97).

(97) a. *Kati ki-tántolt.
    [on intended reading]
    Kati Prt-danced

b. *János ki-sétált.
    [on intended reading]
    János Prt-walked

According to É. Kiss (2005: 62), this follows since verbal particles like ki ‘out’ above require a theme which can function as the subject of secondary predication. This regularity is also expected in light of the Argument-Per-Subevent Condition (Rappaport Hovav and Levin 2001) if such particles have event structure effects such that they introduce a caused subevent into the argument structure of the verb that they accompany (see Section 2.2.2.1), though also see Kardos and Pethő (2019) on some problems that arise with the Argument-Per-Subevent Condition in light of some English and Hungarian data. For a recent classification of various aspectual pseudo-objects in Hungarian, see Farkas (2021).

2.3 Aktionsarten

2.3.1 General description

In this section I provide a detailed characterization of a word-level aspectual category which is often referred to as aktionsart in the literature. In determining what is meant by this notion, I follow Kiefer (2006), which is, to my knowledge, the most detailed and precise classification of various aktionsarten in Hungarian to date. Kiefer (2006: 149) provides the following criteria for determining aktionsarten:
a. Aktionsarten are expressed by morphologically complex verbs.

b. The morphological material that is responsible for the derivation of aktionsarten contributes additional meaning in a way that the meaning of the base verb remains intact.

c. Verbal particles that are responsible for the derivation of aktionsarten have gone through grammaticalization and hence their original adverbial meaning is no longer transparent.

d. Aktionsarten come about as a result of productive morphological processes.

In Hungarian it is the suffix -gat/-get and a variety of verbal particles that are responsible for the derivation of aktionsarten. Particles can thus often express more than one aspectual meaning. They can, for example, have a perfectivizing/telicizing function and they can also participate in the derivation of one or more aktionsarten. This is illustrated in (99).

(99) Mari be-hisztizett.
   Mari in-whined
   ‘Mari whined strongly.’

In (99) the particle be ‘in’ carries more than one aspectual meaning: It has a perfectivizing/telicizing function and it also contributes that Mari got deeply involved in the whining activity expressed by the base verb.

Based on the criteria given in (98), Kiefer distinguishes between the following aktionsarten in Hungarian:

(100) a. iterative
     b. frequentative
     c. diminutive
     d. semelfactive
     e. delimitative
     f. inchoative
     g. resultative
     h. submersive

As for (100g), Kiefer also isolates five more aktionsarten which have the common property of contributing that a specific result state attains at the termination of the eventuality denoted by the base verb. In what follows I discuss each aktionsart in (100) along with the various subtypes of (100g) by addressing ways in which they are morphologically marked, what additional meaning they contribute, how their derivation is constrained, and, if applicable, how they change the subcategorization properties of the base verb.

6 In Section 2.3 I provide literal translations of particles in the glosses.
2.3.2 Types

2.3.2.1 The iterative aktionsart

The iterative aktionsart, marked by the morpheme \textit{-gat/-get}, expresses that the action denoted by the base verb is carried out repeatedly over the course of regular or irregular intervals. This is evidenced by the compatibility of adverbials like \textit{rendszeresen} ‘regularly’ and \textit{egy\textsuperscript{e}sz\textsuperscript{e}r-egyszer} ‘every once in a while’ with verbs containing this aktionsart, as shown in (101), which is a slightly modified version of Kiefer’s example (2006: 151, (12)).

\begin{enumerate}
  \item János \textit{rendszeresen} nyitogatta az ajtót.
  \hfill (101)
  \begin{itemize}
    \item János regularly opened\textunderscore repeatedly the door.\textit{Acc}
    \end{itemize}
  \textit{‘János regularly kept opening the door.’}
  \item János \textit{egy\textsuperscript{e}sz\textsuperscript{e}r-egyszer} nyitogatta az ajtót.
  \begin{itemize}
    \item János once\textunderscore once opened\textunderscore repeatedly the door.\textit{Acc}
    \end{itemize}
  \textit{‘János kept opening the door every once in a while.’}
\end{enumerate}

The examples above are similar in that they both express that there is a repetition of the opening events denoted by the base verb \textit{nyit} ‘open’, but they are also different in that (101a) illustrates a regular repetition of a series of events, whereas (101b) describes an irregular one.

The derivation of this aktionsart is constrained in a way that the base verb must be eventive such that it expresses a momentary situation, as in the case of \textit{nyit} ‘open’ in (101), and \textit{üit} ‘hit’ and \textit{robbant} ‘explode’ in (102). Stative verbs are incompatible with the iterative \textit{-gat/-get}, as evidenced by the ill-formedness of the verbs \textit{*tartalmazgat} and \textit{*létezget}, where \textit{tartalmaz} corresponds to \textit{contain} and \textit{létezik} corresponds to \textit{exist} in English.

\begin{enumerate}
  \item János \textit{útögette} a hátamat.
  \begin{itemize}
    \item János hit\textunderscore repeatedly the back.\textit{Poss.Acc}
    \end{itemize}
  \textit{‘János kept hitting my back.’}
  \item A katonák \textit{egész \textsuperscript{e}j\textsuperscript{e}l} bombákat robbantgattak.
  \begin{itemize}
    \item the soldiers whole at.night bomb.\textit{Pl.Acc} exploded\textunderscore repeatedly
    \end{itemize}
  \textit{‘The soldiers kept exploding bombs all night.’}
\end{enumerate}

2.3.2.2 The frequentative aktionsart

The frequentative aktionsart, marked by particle reduplication, is similar to the iterative aktionsart in that the former also expresses the repetition of events, but it is also different by virtue of being strictly associated with an irregular repetition of singular events. This is demonstrated in (103), where the (a) example containing the adverbial \textit{egyszer-egyszer} ‘every once in a while’ and a verb having frequentative aktionsart is acceptable and expresses that a singular hitting event occurred every once in a while, whereas (b) is unacceptable due to the presence of \textit{rendszeresen} ‘regularly’.

\begin{enumerate}
  \item a. János \textit{útögette} a hátamat.
  \begin{itemize}
    \item János hit\textunderscore repeatedly the back.\textit{Poss.Acc}
    \end{itemize}
  \textit{‘János kept hitting my back.’}
  \item b. A katonák \textit{egész \textsuperscript{e}j\textsuperscript{e}l} bombákat robbantgattak.
  \begin{itemize}
    \item the soldiers whole at.night bomb.\textit{Pl.Acc} exploded\textunderscore repeatedly
    \end{itemize}
  \textit{‘The soldiers kept exploding bombs all night.’}
\end{enumerate}
Similarly to what is observable in the case of the iterative aktionsart, the derivation of the frequentative aktionsart is also constrained in a way that the base verb cannot be stative, which is demonstrated by the ill-formedness of verbs like *el-el-fér ‘fit in (a place)’ and *meg-meg-tart ‘hold’, but it has to be a verb describing a momentary situation, as in (103a) and (104a), or an activity, as in (104b).

(103) a. Péter egyszer-egyszer meg-meg-ütötte a hátamat.
    Péter once-once Prt-Prt-hit the back.Poss.Acc
    ‘Péter hit my back every once in a while.’

    b. ??Péter rendszeresen meg-meg-ütötte a hátamat.
    Péter regularly Prt-Prt-hit the back.Poss.Acc

(104) a. Kati el-el-tört egy tányért.
    Kati away-away-broke a plate.Acc
    ‘Kati sometimes broke a plate.’

    b. Kati el-el-táncolgatott a lányával.
    Kati away-away-danced_at_a_leisurely_pace the daughter.Poss.Ins
    ‘Kati sometimes danced with her daughter at a leisurely pace.’

Another semantic restriction that is characteristic of this aktionsart is that it is not possible to reduplicate particles expressing that the eventuality denoted by the base verb is carried out too intensively, as shown in (105), where the particle agyon ‘over, to death’ is meant to indicate the excessive nature of the working activity by Mari.

(105) *Mari agyon-agyon-dolgozta magát.
    Mari over-over.worked self.Acc

Furthermore, Kiefer also points out a phonological constraint such that particle reduplication, and hence the derivation of the frequentative aktionsart, is not possible in cases where the particle contains more than two syllables. This is shown in (106), where the particle keresztül corresponds to English through.

(106) *Ádám keresztül-keresztül-sétált a hídon.
    Ádám through-through-walked the bridge.Sup

Finally, it is worth noting that this aktionsart often occurs with the iterative or the diminutive aktionsart. The former is illustrated in (107), where the verbal predicate expresses that there have been instances of a series of events wherein Dániel opened the doors.
Dániel ki-ki-nyitogatta az ajtókat.
Dániel out-out-opened_repeatedly the door.Pl.Acc
‘Dániel sometimes kept opening the doors.’

In (104b), repeated here as (108), the frequentative aktionsart is shown to appear with the diminutive aktionsart, which is to be discussed in the next section.

Kati el-el-táncolgatott a lányával.
Kati away-away-danced_at_a_leisurely_pace the daughter.Poss.Ins
‘Kati sometimes danced with her daughter at a leisurely pace.’

2.3.2.3 The diminutive aktionsart

The diminutive aktionsart, marked by the morpheme -gat/-get just like the iterative aktionsart, expresses that the activity denoted by the base verb is carried out at a leisurely pace. For example, dolgozik ‘work’ in (109a) is different from dolgozgat ‘work at a leisurely pace’ in (109b) in that the latter describes a situation where the agent carries out a working activity at a more relaxed, leisurely pace.

János dolgozott az irodában.
János worked the office.Ine
‘János worked in the office.’

b. János dolgozgatott az irodában.
János worked_at_a_leisurely_pace the office.Ine
‘János worked in the office at a leisurely pace.’

The diminutive aktionsart is compatible with activity-type verbs like dolgozik ‘work’, but, given its semantic contribution, incompatible with (i) verbs expressing that the denoted activity is carried out too intensively and (ii) verbs expressing momentary situations. The former is illustrated in (110a), while the latter in (110b).

*János agyon-dolgozgatta magát.
János over-worked_at_a_leisurely_pace self.Acc

b. *Mari el-törögette a tányért.
Mari away-broke_at_a_leisurely_pace the plate.Acc

As for the incompatibility demonstrated in (110b), it has also been argued that the semantic effect of the morpheme -gat/-get is such that it constrains the predicate in a way that the goal point of the denoted eventuality is existentially bound, which, however, clashes with the inherent telic property of predicates like el-tör ‘break’. As far as their aspectual structure is concerned, these predicates pattern with the conative construction in English (Kardos 2012, 2019). This is illustrated in (111) and (112), where both verbal expressions are interpreted atelically despite the quantized nature of the incremental theme.
(111) Kati 10 percig*10 perc alatt eszegetett egy almát.
    Kati 10 minute.Ter /10 minute under ate_at_a_leisurely_pace an apple.Acc
    ‘Kati ate an apple at a leisurely pace for 10 minutes.’
(112) Kate ate at an apple for 10 minutes / *in 10 minutes.

2.3.2.4 The semelfactive aktionsart
The semelfactive aktionsart, marked by the particle meg, expresses that there has been a single
instance of the activity denoted by the base verb. For examples, consider the verb pairs below,
which illustrate the contrast between the base verbs simogat ‘pat’ and dörzsöl ‘rub’ and their
counterparts containing semelfactive meg.

(113) a. Mari simogatott egy kutyát.
    Mari patted a dog.Acc
    ‘Mari was patting a dog.’
    b. Mari meg-simogatott egy kutyát.
    Mari Prt-patted a dog.Acc
    ‘Mari patted a dog.’
(114) a. Kati dörzsölte a szemét.
    Kati rubbed the eye.Poss.Acc
    ‘Kati was rubbing her eyes.’
    b. Kati meg-dörzsölte a szemét.
    Kati Prt-rubbed the eye.Poss.Acc
    ‘Kati rubbed her eyes.’

As noted by Kiefer (2006: 164), this aktionsart seems to be productively derived from verbs
expressing situations that are repeated inherently. This property is not to be confused with
iterativity, which contributes the meaning that there is a repetition of several independent
eventualities denoted by the base verb.

2.3.2.5 The delimitative aktionsart
The delimitative aktionsart, which is marked by the particle el, expresses temporal
boundedness. This property is not identical with telicity, as evidenced by the ill-formedness of
the examples in (115) in the presence of the frame adverbial két perc alatt ‘in two minutes’.
Verbal expressions of this kind express that an agent participant spends a certain amount of
time carrying out the activity described by the base verb.
a. Éva (*két perc alatt) el-gondolkodott.
   Éva (*two minute under) away-thought
   ‘Éva spent some time thinking about something.’

b. János (*két perc alatt) el-mélázott a holdfenyben.
   János (*two minute under) away-pondered the moonlight.
   ‘János spent some time pondering over something in the moonlight.’

c. József (*két perc alatt) el-dumált a barátjával.
   József (*two minute under) away-chatted the friend.
   ‘József spent some time chatting with his friend.’

The examples above are meant to demonstrate that the delimitative aktionsart is common with verbs of thinking and verbs of conversing. (For more on these examples and the pseudo-object egyet ‘one.Acc’, see Chapter 3.) In addition, verbs containing the diminutive morpheme -gat/- get can also productively participate in the derivation of this aktionsart, as shown in (116).

(116)  a. Dániel el-borozgatott a kertben.
       Dániel away-drink_wine_at_a_leisurely_pace the garden.
       ‘Dániel spent some time drinking wine at a leisurely pace in the garden.’

b. Anna el-rajzolgatott a terazon.
   Anna away-drew_at_a_leisurely_pace the patio.
   ‘Anna spent some time drawing at a leisurely pace on the patio.’

2.3.2.6 The inchoative aktionsart

The inchoative aktionsart, which is most often marked by the particle el and the pseudo-object magát ‘self.Acc’, contributes the meaning component that the activity described by the base verb commences. In other words, this aktionsart refers to the state of affairs that corresponds to the initial point of the interval associated with the activity-type base verb. This is exemplified in (117a), where the initial subpart of a laughing event is picked out by the particle. Likewise, in (117b) it is the initial subpart of a crying event that is described.

(117)  a. Éva el-nevette magát.
       Éva away-laughed self.Acc
       ‘Éva started to laugh.’

b. Dániel el-sírta magát.
   Dániel away-cried self.Acc
   ‘Dániel started to cry.’

An inchoative meaning component can also be contributed by the particle meg, as shown in (118).
An interesting property of the complex verb above is that it is based on the stative verb *szeret* ‘like/love’ which becomes an eventive predicate once it is accompanied by the particle *meg*. For more examples of this sort, see Kardos and Pethő (2019).

2.3.2.7 The resultative aktionsart

The resultative aktionsart contributes the meaning that a specific result state, as lexicalized in the base verb, attains at the termination of the denoted eventuality. It is marked by a variety of particles including *ki, be, le*, and *meg*, as shown in (119).

(119) a. Sára ki-fehéritette az inget.
   Sára out-whitened the shirt.Acc
   ‘Sára whitened the shirt.’

b. Anna be-árn yokolta a szobát.
   Anna in-dimmed the room.Acc
   ‘Anna dimmed the room.’

c. Sára le-borotvált a lábat.
   Sára down-shaved the leg.Poss.Acc
   ‘Sára shaved her leg.’

d. Zsófia meg-melegíttette a levest.
   Zsófia Part-warmed the soup.Acc
   ‘Zsófia warmed the soup.’

Kiefer (2006) notes that a resultative meaning component can actually be isolated in the case of a number of aktionsarten, which can thus be treated as subtypes of the resultative aktionsart. I now discuss each of these in turn.

2.3.2.7.1 The aktionsart of totality

The aktionsart of totality, which is marked by the particle *be*, expresses that the activity denoted by the base verb applies to the entire surface described by the object. For example, (120a) describes a situation in which a piece of paper becomes dotted in its entirety and (120b) expresses that a notebook ends up containing lines from beginning to end.
In examples illustrating the aktionsart of totality, the base verb is often a denominal verb, as in (120), where *pötty* ‘dot’ and *vonal* ‘line’ denote the objects that are applied to the surface expressed by the nominal expression *papírt* ‘paper.Acc’ in (120a) and *füzetet* ‘notebook.Acc’ in (120b). Other denominal verbs exemplifying this aktionsart are given in (121), where the nouns *krém* ‘moisturizer’ and *zsír* ‘lard’ refer to substances and in (122), where *doboz* ‘box’ and *zacskó* ‘plastic bag’ refer to containers.

(120)  
a. János be-pöttyőzött egy darab papírt.  
János in-dotted a piece paper.Acc  
‘János dotted a piece of paper entirely.’

b. Anna be-vonalazta a füzetet.  
Anna in-lined the notebook.Acc  
‘Anna drew lines in the notebook from beginning to end.’

(121)  
a. Kati be-krémelte a lábát.  
Kati in-moisturized the leg.Poss.Acc  
‘Kati put some moisturizer on her leg.’

b. Margit be-zsírozta a tepsit.  
Margit in-put_lard_on the baking_pan.Acc  
‘Margit rubbed some lard on the baking pan.’

(122)  
a. János be-dobozolta a tankönyveket.  
János in-boxed the textbook.Pl.Acc  
‘János boxed the textbooks.’

b. Sára be-zacskózta a régi ruhákat.  
Sára in-put_in_a_plastic_bag the old piece_of_clothes.Pl.Acc  
‘Sára put the old clothes in a plastic bag.’

When containing deadjectival verbs like *sötétít* ‘darken’ and *nedvesít* ‘wet’, as in (123a) and (123b), the complex verb expresses a situation in which the object ends up in a state described by the underlying adjective. For example, in (123a) the room ends up in a state of darkness and in (123b) the towel becomes wet.

(123)  
a. Anna be-sötétítette a szobát.  
Anna in-darkened the room.Acc  
‘Anna darkened the room.’

b. Kati be-nedvesítette a törölközöt.  
Kati in-wetted the towel.Acc  
‘Kati wetted the towel.’

Finally, some motion verbs can also appear with *be* marking the aktionsart of totality. These verbs, which become transitive as a result of the derivation, express that the agent has been to every part of the place expressed by the object while carrying out the activity described by the
base verb. For instance, in (124a) Mari has walked to every part of the city and in (124b) Péter has danced to every part of the stage. For more on such examples, see Chapter 5.

(124)  a. Mari be-gyálogolta a várost.
      Mari in-walked the city.Acc
       ‘Mari walked around the whole city.’

     b. Péter be-táncolta a színpadot.
       Péter in-danced the stage.Acc
       ‘Péter danced around the whole stage.’

2.3.2.7.2 The saturative aktionsart
The saturative aktionsart, which is marked by the particle ki and the pseudo-object magát ‘self.Acc’ or the particle be, adds the meaning that the activity described by the base verb has reached a contextually specified limit. For example, in (125a) the running activity reached a limit where the agent participant Feri had enough of running, in (125b) the crying activity reached a limit where Helga had enough of crying, and in (125c) the bacon-eating activity reached a limit where Margit had enough bacon.

(125)  a. Feri ki-futotta magát.
       Feri out-ran self.Acc
       ‘Feri ran so much that he had enough of running.’

     b. Helga ki-sírta magát.
       Helga out-cried self.Acc
       ‘Helga cried so much that she had enough of crying.’

     c. Margit be-szalonnázott.
       Margit in-ate_bacon
       ‘Margit ate so much bacon that she had enough of it.’

2.3.2.7.3 The terminative aktionsart
The terminative aktionsart, which is encoded in the particle el, expresses that the denoted event comes to an end. The verbs that are associated with this meaning often take objects that refer to various pieces of music or things that can be uttered or recited. Some examples are given in (126), where (a) describes an eventuality in the course of which János played a song in its entirety, whereas (b) and (c) express that Anna told a story and Béla recited a poem from beginning to end.
2.3.2.7.4 The exhaustive aktionsart
The exhaustive aktionsart, which is encoded in the particles *agyon* and *tönkre*, contributes the meaning that the agent of the base verb carries out the denoted activity in a way that he or she becomes exhausted. These particles are attached to activity-type verbs and the derived complex verbs obligatorily take the reflexive pronoun *magát* ‘self’. Examples are given in (127), where (a), (b), and (c) describe events in which the agent participants worked, thought, and studied too much, respectively.

(127)  
(a) Péter agyon-dolgozta magát.  
Péter over-worked self.Acc  
‘Péter overworked himself.’
(b) Károly agyon-gondolkodta magát.  
Károly over-thought self.Acc  
‘Károly exhausted himself by thinking too much.’
(c) Sára tönkre-tanulta magát.  
Sára over-studied self.Acc  
‘Sára exhausted herself by studying too much.’

2.3.2.7.5 The intensive aktionsart
The intensive aktionsart, marked by the particle *agyon*, expresses that the denoted event is carried out in an excessive fashion and this in turn has an effect on the theme argument. Consider (128) for illustration, where in (a) the chicken gets overcooked, in (b) the beef gets overcooked, and in (c) the vegetables end up being too spicy.
(128)  a. Péter agyon-főzte a csirkét.  
     Péter over-cooked the chicken.Acc  
     ‘Péter overcooked the chicken.’  

     b. Sára agyon-sütötte a marhát.  
     Sára over-fried the beef.Acc  
     ‘Sára overcooked the beef.’  

     c. Kati agyon-fűszerezte a zöldségeket.  
     Kati over-spiced the vegetable.Pl.Acc  
     ‘Kati added too much spice to the vegetables.’  

2.3.2.8 The submersive aktionsart

The submersive aktionsart, which is marked by the particle be, expresses that the agent participant ends up in an intensified psychological state, as in (129a), or that this participant gets deeply involved in the activity described by the verb, as in (129b) and (129c) (see also Nádasdy 2003).

(129)  a. János be-szomorodott a filmtől.  
     János in-became_sad the film.Abl  
     ‘János became very sad because of the film.’  

     b. Erzsi be-sírt a nevetéstől.  
     Erzsi in-cried the laughter.Abl  
     ‘Erzsi cried from laughter.’  

     c. Józsi be-parázott a vizsgától.  
     Józsi in-freaked_out the exam.Abl  
     ‘Józsi freaked out because of the exam.’  

2.4 Some further event structural elements

This section provides insights into some further event-structure building elements in Hungarian with a special focus on resultatives, goal-denoting expressions, depictives, and bare nominals.

2.4.1 Resultatives and goal-denoting expressions

Similarly to many verbal particles, resultative predicates such as pirosra ‘red.Sub’ in pirosra festette a kerítést ‘painted the fence red’ and goal-denoting expressions such as a kapuba ‘into the goal’ in a kapuba rúgta a labdát ‘kicked the ball into the goal’ may also supply endpoints to change-of-state or change-of-location events. The examples in (130a) and (130b) illustrate transitive resultatives, whereas those in (131a) and (131b) are intransitive resultatives.

(130)  a. Anti tisztára seperte a járdát.  
     Anti clean.Sub swept the pavement.Acc  
     ‘Anti swept the pavement clean.’  

55
b. Elek darabokra törte a vázát.
   Elek piece.Pl.Sub broke the vase.Acc
   ‘Elek broke the vase into pieces.’

(131)  a. Az út keményre fagytott.
   the road solid.Sub froze
   ‘The road froze solid.’

b. A fiú nagyra nőtt.
   the boy big.Sub grew
   ‘The boy grew big.’

Whereas in (130a) and (130b) the result predicates tisztára ‘clean.Sub’ and darabokra ‘into pieces’ describe the final states of the theme DPs a járdát ‘the pavement’ and a vázát ‘the vase’ in the sweeping and breaking events, respectively. in (131a) and (131b) it is the constituents keményre ‘solid.Sub’ and nagyra ‘big.Sub’ that express the states that the referents of the DPs az út ‘the road’ and a fiú ‘the boy’ end up in at the termination of the freezing and growing events in the respective examples.

Resultatives, similarly to verbal particles, have been recently treated as PPs (Hegedűs 2013, É. Kiss 2021), though É. Kiss (2008a) analyzes verbal particles as AdvPs consisting of just a head. AP-resultatives are not available in Hungarian, similarly to Slavic languages (Gehrke 2008) (see also Chapter 5). As discussed in detail in the next chapter, as far as their structural representation is concerned, at least two types of analyses can be found in the literature: resultatives have been analyzed as predicative elements checking the [+Pred] feature of the Pred head above VP (É. Kiss 2008a) and also as event-maximizing elements base-generated as complements of V and moving to [Spec, AspP] to check the [+telic] and [+maximal] features of an Asp head above VP (Kardos and Farkas 2022). On the latter analysis, resultatives contrast with particles in that aspectual particles are merged in [Spec, AspP], whereas resultatives exert their event structural effects in that position after movement.

Both weak and strong resultatives are observable in this language: Weak resultatives further specify the final state of the referent of the theme object, which is to some extent already encoded in the verb (132), whereas strong resultatives express states which are impossible to predict based on the meaning of the verb in the predicate (133). For more on this distinction, see Washio (1997).

Weak resultatives

(132)  a. Kati pirosra festett egy kerítést.
   Kati red.Sub painted a fence.Acc
   ‘Kati painted a fence red.’

b. Béla vörösrre festette Sára haját.
   Béla red/Sub dyed Sára hair.Poss.Acc
   ‘Béla dyed Sára’s hair red.’

c. A hideg keményre fagyasztotta az utat.
   the cold solid.Sub froze the road.Acc
   ‘The cold froze the road solid.’

d. Ottó tisztára sürolt egy bográcsot.
Ottó clean.Sub wiped a cauldron.Acc
‘Ottó wiped a cauldron clean.’

Strong resultatives

(133)  
   a. Gabi véresre verte Kálmán.
       Gabi bloody.Sub beat Kálmán.Acc
       ‘Gabi beat Kálmán bloody.’
   
   b. Eszter kékre-zöldre rúgdosta a szomszédját.
       Eszter blue.Sub-green.Sub kicked the neighbor.Poss.Acc
       ‘Eszter kicked her neighbor black and blue.’
   
   c. Ákos rongyosra járta a cipőjét.
       Ákos ragged.Sub went the shoe.Poss.Acc
       ‘Ákos walked his shoes ragged.’
   
   d. Laci hólyagosra ugrálta a lábát.
       Laci blistered.Sub jumped the leg.Poss.Acc
       ‘Laci jumped until his feet got blisters.’

A notable difference between (133a) and (133b) as well as (133c) and (133d) is that in (133a) and (133b) the objects are selected arguments, whereas in (133c) and (133d) they are not. As far as non-selected arguments are concerned, the following structures are also possible, where the non-selected object is a reflexive pronoun (see also É. Kiss 2021).

(134)  
   a. Kati hülyére dolgozta magát.
       Kati silly.Sub worked self.Acc
       ‘Kati worked herself silly.’
   
   b. Viktória halálra nevette magát.
       Viktória death.Sub laughed self.Acc
       ‘Viktória laughed herself to death.’

In (134a) and (134b) the resultative expressions hülyére ‘silly.Sub’ and halálra ‘to death’ describe the final states of Kati and Viktória (typically in a non-literal sense) at the culmination of the working and laughing events, respectively.

Hungarian has been characterized as a satellite-framed language (Hegedűs 2017) along with English, German, Dutch and Finnish concerning which elements lexicalize the different parts of the events that verbal predicates express (cf. Talmy 2000). In these languages the result/path component associated with change-of-state/location events is encoded outside the verb, whereas in verb-framed languages such as Spanish, Italian and Japanese this component is encoded in the verb. An oft-cited consequence of this is that in the former type of languages, resultatives, both strong and weak, are a common device in the expression of change-of-state/location events, whereas in the latter type of languages strong resultatives are generally not available (Washio 1997; Acedo-Matellán 2016). As often seen in strong satellite-framed languages such as English (Acedo-Matellán 2016), resultative secondary predicates make the main predicate telic. This can also be seen in Hungarian, which is also classified by Acedo-
Matellán (2016) as a strong satellite-framed language along with another Finno-Ugric language, Finnish.

(135)  a. Ili egy óra alatt/*egy óráig véresre verte Kálmánt.
     Ili an hour under/an hour.Ter bloody.Sub beat Kálmán.Acc
     ‘Ili beat Kálmán bloody in an hour.’
  
 b. Tamás egy óra alatt/*egy óráig kékre-zöldre rúgdosta
     Tamás an hour under/ an hour.Ter blue(Sub)-green.Sub kicked a szomszédját.
     the neighbor.Poss.Acc
     ‘Tamás kicked his neighbor black and blue in an hour.’

Compatibility with the alatt-adverbal egy óra alatt ‘in an hour’ and incompatibility with the for-adverbal egy óráig ‘for an hour’ show that the examples in (135a) and (135b) are clearly telic.

However, there are also important differences between Hungarian and English-like strong satellite-framed languages. First, resultative predicates and goal-denoting predicates may not remain in a post-verbal position in neutral sentences unless the primary predicate is a particle verb. A similar phenomenon is observable in weak satellite-framed languages such as Slavic languages and Latin. For more on this, see Chapter 5 in Acedo-Matellán (2016).

     Kati painted a fence.Acc red.Sub
     [intended as a neutral, perfective sentence]
  
 b. *Béla festette Sára haját vörösre.
     Béla dyed Sára hair.Poss.Acc red.Sub
     [intended as a neutral, perfective sentence]
  
 c. *Bálint kalapált egy vaslemezt laposra.
     Bálint hammered an iron_plate.Acc flat.Sub
     [intended as a neutral, perfective sentence]
  
 d. *Józsi verte Kálmánt véresre.
     Józsi beat Kálmán.Acc bloody.Sub
     [intended as a neutral, perfective sentence]

With particle verbs, the post-verbal position of result predicates is allowed.

(137)  a. Kati le-festett egy kerítést pirosra.
     Kati Prt-painted a fence.Acc red.Sub
     ‘Kati painted a fence red.’
  
 b. Béla be-festette Sára haját vörösre.
     Béla Prt-dyed Sára hair.Poss.Acc red.Sub
     ‘Béla dyed Sára’s hair red.’

The above constraint is also observable with change-of-location predicates, as shown in (138).
(138) a. *János rohant a kertbe.
   János rushed the garden.Ill

   a'. János a kertbe rohant.
   János the garden.Ill rushed
   ‘János rushed into the garden.’

b. *Péter sétált a tóhoz.
   Péter walked the pond.All

   b'. Péter a tóhoz sétált.
   Péter the pond.All walked
   ‘Péter walked to the pond.’

Once a particle like *ki appears in the predicate, the examples in (138a) and (138b) become grammatical.

(139) a. János ki-rohant a kertbe.
   János Prt-rushed the garden.Ill
   ‘János rushed out into the garden.’

b. Péter ki-sétált a tóhoz.
   Péter Prt-walked the pond.All
   ‘Péter walked out to the pond.’

Further restrictions concerning resultatives involve verbs of killing, which generally describe situations carried out in some manner and are also associated with some result state. Such situations are systematically expressed by particle verbs, as shown by *(meg-)gyilkol ‘murder’, *(fel-)akaszt ‘hang’, *(fel-)négyel ‘quarter’, *(le-)mészárol ‘massacre’, and for some reason, they resist the resultative predicate halálra ‘to death’, which is possible with pure activities. Consider the examples in (140)-(142).

(140) a. A szomszédok *(meg-)gyilkoltak egy idős férfit.
   the neighbor.Pl Prt-murdered an old man.Acc
   ‘The neighbors murdered an old man.’

b. A katonák *(fel-)akasztották az árulót.
   the soldier.Pl Prt-hanged the traitor.Acc
   ‘The soldiers hanged the traitor.’
(141)  a. *?A szomszédok halálra gyilkoltak egy idős férfit.
    the neighbor.Pl death.Sub murdered an old man.Acc
b. *A katonák halálra akasztozták az árulót.
    the soldier.Pl death.Sub hanged the traitor.Acc
(142)  A szomszédok halálra vertek/kínoztak egy idős férfit.
    the neighbor.Pl death.Sub beat/tortured an old man.Acc
    ‘The neighbors beat/tortured an old man to death.’

Whereas English *murder and hang can readily co-occur with the resultative PP to death, Hungarian *?halálra gyilkol ‘murder somebody to death’ and *halálra akaszt ‘hang somebody to death’ sound unnatural or even ungrammatical, as shown in (141a) and (141b). By contrast, the result predicate halálra ‘to death’ is perfectly natural with the activity verbs ver ‘beat’ and kínoz ‘torture’, as illustrated in (142). For more on event lexicalization in Hungarian, see Chapter 5.

Another class of resultatives that is observable in Hungarian has been referred to in prior literature as the class of spurious resultatives (Washio 1997) or pseudo-resultatives (Levinson 2010). Some examples are given in (143).

(143)  a. Ildikó szorosra fonta a haját.
    Ildikó tight.Sub braided the hair.Poss.Acc
    ‘Ildikó braided her hair tight.’
b. Ákos szorosra kötötte a cipőfűzőjét.
    Ákos tight.Sub tied the shoelace.Poss.Acc
    ‘Ákos tied his shoelaces tight.’
c. Bence finomra vágta a hagymát.
    Bence fine.Sub cut the onion.Acc
    ‘Bence chopped the onion fine.’
d. A kávédaráló finomra őrölte a kávészemeket.
    the coffee_grinder fine.Sub ground the coffee_bean.Pl.Acc
    ‘The coffee grinder ground the coffee beans fine.’

These examples are truth-conditionally different from true resultatives since it is not the state of the referent of the direct object that the result predicate in examples like (143a)–(143d) modifies, but some other argument that is left unexpressed in the sentence. The difference
between the semantics of pseudo-resultatives and that of true resultatives is also illustrated below with the availability of the following entailments or the lack thereof.

(144) a. Ildikó szorosra fonta a haját.
    Ildikó tight. Sub braided the hair. Poss. Acc
   ‘Ildikó braided her hair tight.’
   a.’ Ildikó haja szoros lett.
  Ildikó hair. Poss tight became
  ‘Ildikó’s hair became tight.’
   b. Ildikó szőkére festette a haját.
    Ildikó blonde. Sub dyed the hair. Poss. Acc
    ‘Ildikó dyed her hair blonde.’
   b.’ Ildikó haja szőke lett.
    Ildikó hair. Poss blonde became
    ‘Ildikó’s hair became blonde.’

Whereas the sentence in (144a) does not entail that Ildikó’s hair became tight at the culmination of the braiding event, in (144b) Ildikó’s hair became blonde as a result of the dying event. This signals a fundamental difference with respect to what pseudo-resultatives like szorosra ‘tight. Sub’ in (144a) modify and what true resultatives like szőkére ‘blonde. Sub’ in (144b) express.

2.4.2 Depictives

Depictives form another class of event structurally relevant elements in Hungarian, but they have been shown to be more peripheral elements than verbal particles or resultatives. Surányi and Hegedűs (2013) argue that they join the derivation by adjunction as evidenced by the fact that they disallow subextraction. This is shown in (145), adapted from Surányi and Hegedűs (2013: (26a)).

(145) *Mire jött be János nagyon büszkén?
    what. Sub came in János very proudly
   Intended meaning: ‘What was John proud of when he came in?’

Depictives typically occur with stage-level predicates, which also characterizes other languages (Rapoport 1991), but individual-level predicates are also possible under specific conditions. Consider (146), adapted from Pintér (2020: 317, (14)–(15)).

(146) a. János bölcsen tért haza a spirituális utazásról.
    János wisely arrived to home the spiritual journey. Del
    ‘It was wisdom (and not some other property) that János acquired during the
    spiritual journey when he came home.’
   b. Bölcsen János tért haza a spirituális utazásról.
    wisely János arrived to home the spiritual journey. Del
    ‘It was János (and not someone else) who was wise when he came home from the
    spiritual journey.’
Building on McNally’s (1993) work, Pintér (2020) argues that two conditions need to hold so that individual-level predicates can serve as depictive secondary predicates in Hungarian: (i) the primary predicate needs to express a contextually relevant boundary and (ii) the individual-level predicate must be a focused constituent or a contrastive topic. In (146a), for example, the depictive bölcse ‘wisely’ is focused, whereas in (146b) János is focused and bölcse ‘wisely’ is a contrastive topic.

In examples like (147), depictives necessarily modify the causing event and the object in it, but not the result state.

(147) János vizesen rövidre vágta Mari haját.
    János wetly short.Sub cut Mari hair.Poss.Acc
    és mire Mari haja rövid lett, meg-száradt.
    and what.Sub Mari hair.Poss short became, Prt-dried
    ‘János cut Mari’s hair short wet and by the time Mari’s hair became short, it had dried.’

As shown by (147), the depictive vizesen ‘wisely’ necessarily describes Mari’s hair at the beginning of the cutting event, but not necessarily at the culmination of this event. For similar phenomena with respect to English, see Bruening (2018).

With particleless verbs, the canonical position of depictives is the preverbal focus position, as illustrated in (148).

    János wetly combed Mari hair.Poss.Acc
    ‘Mari’s hair was wet (and it was not some other property Mari’s hair had) when
    János combed it.’

b. Ákos nedvesen vágta Balázs haját.
    Ákos wetly cut Balázs hair.Poss.Acc
    ‘Balázs’s hair was wet (and it was not some other property Balázs’s hair had) when
    Ákos cut it.’

With the verbs in (148), the postverbal position of depictives in neutral perfective sentences yields ungrammaticality, similarly to resultatives.

(149) a. *János fésülte Mari haját vizesen.
    János combed Mari hair.Poss.Acc wetly
    [unavailable on a perfective reading]

b. *Ákos vágta Balázs haját nedvesen.
    Ákos cut Balázs hair.Poss.Acc wetly
    [unavailable on a perfective reading]
With particle verbs like *meg-fésül* ‘comb’, they may also precede and follow the verb, in which case they are not focused. For more examples, see É. Kiss (2021).

(150)  a. János vizesen meg-fésülte Mari haját.
János wetly Prt-combed Mari hair.Poss.Acc
‘János combed Mari’s hair wet.’

b. János meg-fésülte vizesen Mari haját.
János Prt-combed Mari hair.Poss.Acc wetly
‘János combed Mari’s hair wet.’

Depictives and resultatives may also co-occur in a single clause in a fixed order, which seems to be a cross-linguistic phenomenon (Den Dikken and Dékány 2022). In Hungarian, depictives must precede resultatives in the preverbal section of the sentence, the reverse order gives rise to ungrammaticality. This is illustrated in (151) and (152).

(151)  a. János vizesen simára fésülte Mari haját.
János wetly smooth.Sub combed Mari hair.Poss.Acc
‘János combed Mari’s hair smooth wet.’

b. Ákos nedvesen rövidre vágta Balázs haját.
Ákos wetly short.Sub cut Balázs hair.Poss.Acc
‘Ákos cut Balázs’s hair short wet.’

(152)  a. *János simára vizesen fésülte Mari haját.
János smooth.Sub wetly combed Mari hair.Poss.Acc

b. *Ákos rövidre nedvesen vágta Balázs haját.
Ákos short.Sub wetly cut Balázs hair.Poss.Acc

2.4.3 Bare nominals

Bare nominals like those in (156) and (157) pattern with many verbal particles, resultatives and other goal-denoting expressions in that they also have a telicizing function when they appear with a case suffix such as illative -ba and allative -hoz.

(156)  a. Erzsi iskolába ment.
Erzsi school.Ill went
‘Erzsi went to school.’

b. Kati buliba ment.
Kati party.Ill went
‘Kati went to a party.’

(157)  a. Juli födráshoz ment.
Juli hairdresser.All went
‘Juli went to a hair salon.’
As pointed out by É. Kiss (2002: 70), bare nominals may also bear an inessive, superessive or adessive case, as in (158), adapted from É. Kiss (2002: 70, (101a), (101c), (101d)).

(158) a. János iskolában marad.
   János school.In remain
   ‘János remains in school.’

b. János meccsen van.
   János match.Sup is
   ‘János is at a football match.’

c. János egész délelőtt orvosnál ült.
   János whole morning doctor.Ade sat
   ‘János was at the doctor’s all morning.’

In (158a) the bare nominal *iskola* ‘school’ bears the inessive suffix *-ban*, whereas in (158b) and (158c), the bare nominals *meccs* ‘match’ and *orvos* ‘doctor’ bear the superessive suffix *-en* and the adessive suffix *-nál*, respectively. Each case-marked nominal in (158) expresses the location of the situation expressed by the verbal predicate in the sentence. For more on the grammar of bare nominals, see Chapter 4 in Bibok (to appear).
3 The structure of the event domain

3.1 Introduction

After a detailed overview of some empirical facts of event structure and lexical/inner aspect in Hungarian, in this chapter I turn to a recent analysis by Kardos and Farkas (2022), where we provide a structural account of the telicity facts of Hungarian. In this work we contribute to the extant research on inner aspectual markers by providing an analysis of entailed versus implied telicity as well as the (non)maximality effects with which telic predicates are associated. Although the research reported in this chapter is focused on the grammar of Hungarian, important parallels are also drawn between typologically different languages like Finno-Ugric (e.g. Hungarian and Finnish) and Germanic (e.g. English) regarding their inner aspectual marking strategies, and the interaction of inner aspect and case assignment. In the final section, I also briefly discuss a recent proposal by MacDonald (2023a, b), who provides a syntactic treatment of various telicity-marking elements in languages such as English, Spanish and Hungarian by building on the scalar semantic analyses of Hey et al. (1999) and Kennedy and Levin (2008) and also the maximization-based accounts of telicity by Filip and Rothstein (2006), Filip (2008), Kardos (2016), Kardos and Farkas (2022) and Gabriel Martínez Vera (2022).

As is clear from the discussion in Chapter 2, although there is a sizeable literature on various aspectual markers such as verbal particles (VPrts), result predicates (RPs), pseudo-objects (POs) or created/consumed objects (CCOs) (É. Kiss 2004, 2005, 2008a, 2008c; Kiefer 2006; Kardos 2012, 2016, 2019; Farkas and Kardos 2018, 2019a, 2019b; Farkas 2019, 2020a, 2021; Hegedűs 2020), there is no consensus on the correct analysis regarding their syntactic behaviour. The central goal in this chapter is to attribute the event aspectual interpretations associated with the different marking elements to the syntactic configuration characterizing these elements. There are two main claims defended here:

First, in line with previous literature on the syntax of inner aspect (cf. MacDonald 2008b and Travis 2010), it is claimed, in line with Surányi (2014), that Hungarian also has an aspectual functional projection, called AspP, sandwiched between VP and vP in the event domain, which is directly responsible for the aspectual interpretations associated with VPrts, RPs and POs. The analysis proposed here pertains to separable particles with an obligatorily telic function like meg in examples such as János megevett egy almát ‘János ate an apple’ and János meg szerelt egy gépet ‘János fixed a machine’. In addition, with respect to the aspectual differences between VPrts/RPs, on the one hand, and POs, on the other hand, it is argued, following Kardos (2012, 2016) and Farkas and Kardos (2019a, 2019b), that while the former serve an event-maximizing function in their respective predicates by virtue of encoding an event-maximizing operator, the latter have a non-maximalizing function by virtue of encoding an operator that picks out a contextually-defined, non-maximal subpart of the events in the denotation of their verbal predicates. In other words, although members of both classes of aspectual markers give rise to quantized and telic VPs, telicity in the case of the former goes hand in hand with maximality, whereas in the latter case it does not. In minimalist terms, AspP can be characterized in terms of two types of features: it is associated with a [+telic] feature and, in addition to that, a maximality feature as well, which can be valued in one of two ways, i.e. [+maximal] or [-maximal]. Thus, the properties of these two classes of aspectual markers can be described as follows: VPrts/RPs = [+telic, +maximal], POs = [+telic, -maximal].

This chapter is an updated version of Kardos and Farkas (2022).
Second, in accordance with prior literature (e.g. É. Kiss 2008a; Kardos 2012, 2019), it is shown that telic readings in Hungarian are also available with verbs complemented with CCOs in the absence of any other aspctual marking elements. While telicity in the previous case, i.e. when AspP is present, is an entailment, it is an implicature in the case of creation/consumption predicates, which means that telicity is cancellable in this verb class. Whereas non-cancellable telicity effects are shown to be exerted by grammatical elements occupying the [Spec, AspP] position associated with the [+telic] feature and, in addition, the [±maximal] feature, characteristic of two subclasses of telic predicates, cancellable telicity is argued to arise in the absence of a telic structure in the class of creation/consumption predicates.

In other words, whereas AspP is projected in the case of aspctual markers with non-cancellable telicity effects, aspctual markers with cancellable telicity effects do not trigger the projection of this phrase. It is also assumed that in the case of other elements with no telicity effects (e.g. non-telicizing verbal particles or internal arguments other than quantized CCOs appearing in the environment of base verbs), AspP is, again, not projected.

The following skeleton is proposed for Hungarian telicity-marking elements:

(1) … vP
   v  AspP – non-cancellable telicity effects
       Asp [+telic], [±maximal] VP – cancellable telicity effects
           V …

The chief aim of this chapter is to provide an analysis of telicity entailments and the lack thereof as well as the (non)maximality effects with which telic predicates are associated by examining the aspctual behaviour of members of (i) the class of VPrts and RPs, (ii) the class of non-subcategorized POs and (iii) the class of CCOs.

It is important to note at the outset that, as far as verbal particles are concerned, given the complexity of the event structural and argument structural consequences of these elements, it is not possible to do justice to the richness of the verbal particle system in Hungarian within the confines of this chapter. Concerning their event structural effects, telicizing particles like fully grammaticalized meg and particles associated with some lexical information in addition to their telicizing function, such as fel ‘up’ in fel-mászott a fára ‘climbed up the tree’, are assumed to exert their telicizing/event-maximalizing effects in [Spec, AspP], whereas particles that do not make the predicate telic may be simply predicative elements, as in the case of ki ‘out’ in Az ing ki-lóg a nadrágból ‘The shirt hangs out of the pants’, occupying the specifier of a Pred projection (É. Kiss 2008a). Particles with a purely predicative function are plausibly merged within the VP similarly to result predicates such as ropogósra ‘(lit.) onto crispy’ as in ropogósra sütötte a csirkét ‘roasted the chicken crispy’, where the latter are also argued to move to [Spec, AspP] to make the predicate telic (see Section 3.4.1).

The structure of the chapter is as follows: In Section 3.2 I review some recent syntactic analyses of these marking elements. In Section 3.3 I present some crucial theoretical assumptions about lexical aspect and grammatical aspect, two distinct, albeit related aspctual categories, as well as the structure of the VP so that I can discuss the proposal in Section 3.4 with these assumptions in mind. In Section 3.5 I present some consequences of the proposal focusing on various co-occurrence restrictions pertaining to the different inner aspctual markers. Section 3.6 concludes with some final remarks on the structural representation of inner aspect in Hungarian.
3.2 Previous claims regarding the syntax of event structural elements

Grammatical aspect (more specifically, perfectivity) has long been at the forefront of attention in the literature on Hungarian (see É. Kiss 2002; Kiefer 2006, among many others), but the study of inner aspect is relatively new in Hungarian aspectology. In recent decades, researchers have attempted to represent telicity-marking elements in the syntax of the Hungarian sentence in different ways. In this section I review some of these proposals.

According to the most influential analysis (É. Kiss 2004, 2008a), the verbal particle is a secondary predicate that merges in the postverbal domain of the Hungarian sentence and, in a one-step derivation, moves to the specifier position of PredP, situated above VP, to check the predicative feature of the head, whereas the V moves to Pred in the course of the derivation. The telicizing effect of the particle is a direct consequence of its lexical semantics. As discussed in Section 3.4, this is in contrast to the analysis presented in this work, where it is the grammar that is directly responsible for creating telic structures (Borer 2005, MacDonald 2008a, b, 2023a, b) associated with verbal particles and result predicates.

In another study, Surányi (2009) advocates a vP-shell analysis of the Hungarian event domain based on Surányi (2006), and proposes a two-step derivation of verbal particles and result predicates whereby they first move from their base-generated postverbal position to [Spec, PredP], sandwiched between VP and vP, and then to [Spec, TP] to check the EPP feature of T.

Another recent analysis of verbal particles is given by Hegedűs and Dékány (2017), where both separable and inseparable particles are addressed. On the one hand, in separable particle verbs like elfut ‘run away’, the particle appears in the immediately preverbal position in neutral sentences (i.e. declaratives without progressive aspect, negation or narrow focus) and in a postverbal position in non-neutral sentences (declaratives with progressive aspect, negation, narrow focus, wh-interrogatives and imperatives). On the other hand, in inseparable particle verbs like felvételizik ‘take an entrance exam’ (where fel is the inseparable particle), the particle appears in the immediately preverbal position in both neutral and non-neutral sentences. The authors take separable verbal particles to be small clause predicates in the complement zone of V. They also claim that separable particles that can occur with inseparable particle verbs such as szét in szétfelvételiztem az agyam ‘I got exhausted with taking entrance exams’ are merged in a specifier position ([Spec, PredP]) located between VP and vP.

Next, Hegedűs (2017) provides a preliminary syntactic account of endpoint-denoting elements in Hungarian. Her main concern is the structural characterization of the cross-linguistic variation between verb-framed and satellite-framed languages (Talmy 1985). She points out that Hungarian, a strong satellite-framed language, differs from verb-framed languages and also from English, a weak satellite-framed language, in that results/goal points must be separately instantiated in this language. Particles never incorporate into the V head, and there is no N-to-P incorporation, where the resulting compound incorporates into V in the manner proposed by Hale and Keyser (2002) for denominal verbs like shelve. On this view, particles appear as p heads in the syntax, where pPs are complements of V and the internal argument occupies the specifier of this phrase.

Finally, Surányi (2014) argues for an aspectual functional projection, AspP, flanked by VP and vP, in line with MacDonald (2008b) and Travis (2010), thereby directly associating situational aspectual interpretations with the syntactic structure of the Hungarian sentence. On this analysis, verbal particles, goal-point denoting PPs and some other elements such as bare nominals are base-generated in a postverbal position and first move to [Spec, AspP] for the purpose of pseudo-incorporation before they eventually end up in a vP-external position. As will be clear in the subsequent discussion, the analysis presented in this chapter is similar to
Surányi (2014) in that a vP-medial aspectual functional projection is proposed for Hungarian, but it is also argued that (i) AspP is associated not only with the [+telic] feature but also with the [±maximal] feature and (ii) telicity may also arise in the absence of AspP in the case of creation/consumption predicates. These assumptions will allow us to capture the different event structural properties associated with VPRTs, RPs, POs and CCOs.

Similarly to particles, POs like egyet ‘one.Acc’ and egy jót ‘one good.Acc’ have also been argued to merge within vP and move to [Spec, PredP] when they precede the (semelfactive) verb. Just like on É. Kiss’s analysis (2008a) of verbal particles, the telicity of predicates containing pseudo-objects has been regarded as a matter of semantics (Csirmaz 2008b).

In this chapter a syntactic analysis is given of the three classes of aspectual markers discussed so far, where a special attention is paid to how the event structural properties characterizing these elements are to be represented in the structure of the Hungarian sentence. Before presenting the analysis, however, I discuss some central assumptions regarding the relationship between grammatical aspect and lexical aspect and the structure of the VP in Section 3.3.

### 3.3 Background assumptions

#### 3.3.1 Lexical aspect versus grammatical aspect

Aspect is a term that has been used to refer to (at least) two distinct domains of study: outer (also called grammatical or viewpoint) aspect and inner (also called lexical or situation) aspect, also referred to as Aktionsart; cf. Smith (1991). On the one hand, outer aspectual categories are generally encoded by morphological devices or periphrastic constructions. Outer aspect is often responsible for grammatically signalling whether the verbal predicate expresses an ongoing situation or one that is completed. We illustrate this opposition with the following pair of sentences from English:

(2)   a. When Bill came into the office, Sara left through the back door.
     b. When Bill came into the office, Sara was leaving through the back door.

(De Swart 2012: 753, (3))

The sentence in (2a) presents both Bill’s coming into the office and Sara’s leaving through the back door as completed events, where the former precedes the latter in time. By contrast, (2b) expresses Bill’s coming into the office as a completed event, whereas Sara’s leaving through the back door as ongoing. The two events are described as overlapping; a consecutive reading is not available.

On the other hand, the categories that belong to inner aspect are encoded in the verb phrase by means of inherent aspectual features. As we will see below, inner aspect, a vP-related functional category, can be morphologically encoded for instance by verbal particles. Evidence for these distinct – albeit related – aspectual categories with respect to Hungarian has been provided by Csirmaz (2008a). Here only the perfective–imperfective distinction is illustrated with the examples in (3), where inner aspect is kept constant; both sentences contain a telic predicate.

(3)   a. Kati 'tél-mászott a fára.
     Kati Prt-climbed the tree.Sub
     ‘Kati climbed (up) the tree.’
b. Kati 'mászott 'fel a 'fára, amikor …
Kati climbed Prt the tree.Sub when …
‘Kati was climbing (up) the tree when …’

The interpretational differences are significant: whereas the perfective and telic (3a) means that Kati climbed up the tree, the progressive and telic (3b) means that Kati was engaged in the event of climbing up the tree when the event of the subordinate clause occurred. The perfective–imperfective contrast is reflected in word-order differences. Whereas in (16a) the particle fel precedes the verb, in (3b) it follows it. Outer aspectual differences are also reflected in the prosody of the Hungarian sentence. Consider (4).

(4) a. János 'ivott egy limonádét.
János drank a lemonade.Acc
‘János drank a lemonade.’

b. János 'ivott egy 'limonádét, amikor …
János drank a lemonade.Acc when …
‘János was drinking a lemonade, when …’

The sentences in (3a) and (3b), and also in (4a) and (4b), are different regarding the stress pattern they are associated with. Whereas in the (a) examples the verbs bear the main stress, as indicated by the ’ sign, in the (b) examples stress is distributed over the words that are preceded by the ’ sign (for similar data, see É. Kiss (2002: 63)). Non-contrastive topics like Kati and János cannot receive the main stress. For more on Hungarian sentence prosody, see Hunyadi (2002).

In what follows outer aspect will be kept constant, as the analysis of this aspectual category is beyond the scope of this chapter. The Hungarian examples in the rest of the chapter are meant to receive a perfective interpretation.

3.3.2 Assumptions about the structure of the VP

As far as the structure of the verb phrase is concerned, following MacDonald (2008b), Travis (2010) and Surányi (2014) it will be assumed that it can be split into a lexical VP and a shell light vP, and it will also be claimed that there is an inflectional aspectual category sandwiched between these two phrases (called AspP).

The main goal of MacDonald’s (2008b) analysis is to explore the syntactic nature of inner aspect from a minimalist perspective. With respect to English inner aspect, two independent properties must be taken into consideration. To account for the object-to-event mapping property (i.e. the ability of a nominal expression to affect the aspectual interpretation of a predicate), the author argues for the existence of an aspectual phrase (AspP) within the verbal domain (more exactly, between vP and VP), which is implicated in the aspectual interpretation of the predicate and determines a domain of aspectual interpretation. Moreover, the Agree relation with Asp is the syntactic instantiation of the object-to-event mapping (and it is always the nominal expression closest to Asp that enters this mapping relation). To capture properties related to event structure, the author argues for the existence of interpretable event features that enter the syntax on certain heads (Asp, V), and which express whether the event has a beginning (<ie> feature) and/or an end (<fe> feature). These event features contribute to the aspectual interpretation of the sentence.

An important consequence of AspP is that it is only elements that are within the domain of aspectual interpretation that can contribute to the aspectual interpretation of the predicate.
In other words, for an element to contribute to the aspectual interpretation of a predicate, it must be within the domain of aspectual interpretation defined by AspP and everything contained by AspP. This implies that subjects and adjuncts, which are outside the domain of aspectual interpretation defined by AspP, cannot delimit the event of V, in sharp contrast to complements, which are argued to be below AspP, occupying a position internal to VP and hence influencing the aspectual interpretation of the predicate; cf. the tree diagram below:

(5) … vP
    /   \
   /     \
vP    adjunct
  /     \
subject v'
    /     \
   v     AspP
     /     \
Asp   VP
      /     \
V    complement

(adapted from MacDonald 2008b: 58, (74))

The starting point for the discussion in Travis (2010) is the hypothesis that, similarly to the movement of the subject DP from its merged position ([Spec, vP]) to the specifier of a functional projection ([Spec, TP]), the object DP also undergoes movement from its merged position to the specifier of a functional projection. This means that there must be a functional head within the VP which is responsible for this latter movement and there seem to be morphological reasons to believe that there is an inflectional category within the VP, and that this non-lexical category is Aspect. Moreover, the specifier position of this latter functional projection ([Spec, AspP]) serves as the landing site for derived objects. More precisely, internal DP arguments affecting the aspectual interpretation of the predicate are merged in [Spec, VP] (logical object position) but they move to [Spec, Asp] (derived object position) if they induce a telic interpretation on it (see below). Similarly to MacDonald (2008b), direct object themes are allowed to remain in [Spec, VP], in which case they do not measure the event. In addition, it is not the case that all elements in the domain of inner aspect are part of the computation, but in order to be part of the computation, they must be part of this domain. The tree diagram in (6) shows these syntactic assumptions:
There are multiple positions in the articulated VP that have been claimed to figure into the calculation of inner aspectual interpretations. Travis (2010: 242, 244) argues for three positions where telicity can be marked and that languages can utilise in different ways:

(i) X, the head of the complement of V2/V (where X is often realized as an A or a P, and XP is a result predicate or a goal phrase)\(^8\)
(ii) Asp (expressed by morphemes in Malagasy and Chinese) and the derived object position in [Spec, AspP], which is one possible landing site for DP movement within the VP; this specifier position is occupied by incremental themes
(iii) the upper V1/v head, which is a light verb corresponding to CAUSE. This position is argued by Slabakova (1997) to be occupied by Slavic (more specifically, Bulgarian) preverbs

The different positions have important consequences with respect to the interpretation of the theme DP in the verbal predicate. For example, telicity-marking elements in v (e.g. preverbs) in Bulgarian impose semantic restrictions on the theme DP such that it must be specific (or have a specific reading) by virtue of having this DP within their scope, i.e. in their c-command domain.

3.4 A novel account of the structure of the event domain

Here it is argued that telic interpretations become available in two different ways in Hungarian: (i) telicity may arise as an entailment due to an aspectual functional projection, AspP, sandwiched between VP and vP in the structure of the sentence and (ii) it may also arise as an implicature in the case of a specific predicate class, the class of creation/consumption predicates. It is verbal particles like mag in VPs such as mag-ezik egy almát ‘Prt-eat (up) an apple’, result predicates like laposra ‘(lit.) onto flat’ in resultative constructions such as laposra kalapátja a fémet ‘hammer the metal flat’ and non-subcategorized pseudo-objects like egyet

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\(^8\) Hungarian result predicates like pirostra ‘(lit.) onto red’ in pirostra festette a kerítést ‘painted the fence red’ are assumed to be base-generated as PP complements in VP. For more on PP resultatives in Hungarian, see Hegedűs (2013: 128–131).
one.Acc’ in VPs such as fut egyet ‘go for a run’ that induce telicity in the [Spec, AspP] position by functioning as aspectual operators picking out maximal or contextually defined non-maximal subparts of the events denoted by their verbal predicates, thereby ensuring that the resulting verbal predicates have quantized reference. Telicity in this case cannot be cancelled, which is expected as it is ‘the grammar, rather than the lexical semantics of any particular listeme’ that forces “the projection of telic structure” (Borer 2005: 153). On the other hand, created or consumed objects with quantized reference may also give rise to telic readings, but the predicates whose telicity is due to such objects can also easily receive atelic interpretations.

It is also crucial to note that Hungarian objects with quantized reference in other verb classes do not have the ability to measure out events and thus such constituents do not give rise to telicity, as also stressed and further illustrated in Chapter 5. Thus, Hungarian turns out to be different from languages like English, German, Dutch and Spanish, where bounded objects often have a measuring-out function in the environment of members of the class of creation/consumption verbs and those of other verb classes.

In this section I discuss our analysis of entailed versus implied telicity by first addressing the syntax of verbal particles, result predicates and pseudo-objects in Sections 3.4.1 and 3.4.2, respectively. Section 3.4.3 is devoted to the aspectual effects of created/consumed objects.

3.4.1 Verbal particles and result predicates

As noted earlier, Hungarian verbal particles and result predicates appear in the immediately preverbal position in neutral sentences and often have a telicizing function (Csírmaz 2008a; É. Kiss 2008a, 2008c):

(7) a. Kati tíz perc alatt/*tíz percig meg-evett egy almát.
   Kati ten minute under/ten minute for Prt-ate an apple Acc.
   ‘Kati ate (up) an apple in/*for ten minutes.’

b. Kati két óra alatt/*két óráig ropogósra sütött egy csirkét.
   Kati two hour under/two hour for crispy Sub roasted a chicken Acc.
   ‘Kati roasted a chicken crispy in/*for two hours.’

Verbal particles like meg (7a) and result predicates like ropogósra ‘(lit.) onto crispy’ (7b) have been shown to encode an event-maximalizing operator (MAXE) (Filip and Rothstein 2006), which is applied to a partially ordered set of events, from which they pick out the unique largest event at a given situation, thereby ensuring that the resulting predicates have quantized reference, and thus they are interpreted telically, as shown by the temporal adverbial test (cf. Kardos 2012, 2016). It is argued that particles like meg exert their event-maximalizing function in their base-generated [Spec, AspP] position by checking the [+telic] and [+maximal] features of the Asp head. As we will see in Section 3.4.2, meg-type telicity-marking verbal particles in examples like (7a) are different from pseudo-objects like egyet ‘one.Acc’ in VPs such as aludt egyet ‘got some sleep’, which are also assumed to be base-generated in [Spec, AspP], in that the latter are not associated with maximality, though they also give rise to verbal predicates with quantized reference and non-cancellable telicity. The representation proposed for sentences like Kati meg-evett egy almá is given below.9

9 As discussed in Section 3.2.2, Surányi (2009) assumes that there is one more step in the derivation of the neutral surface order: the particle undergoes movement to [Spec, TP] to check the EPP feature of T, and the verb undergoes head-movement into T (via Asp and v, in the present account). As these two (types of) movements do
An important consequence of the event maximalizing element \textit{meg} in [Spec, AspP] is that it imposes semantic constraints over the theme in its \textit{c}-command domain such that it cannot be a bare plural associated with cumulative reference. Consider (9) below.

(9) a. Kati \textit{meg-evett} egy/három \textit{almát}.
    Kati Prt-ate an/three apple.Acc
    ‘Kati ate an apple/three apples.’

b. *Kati \textit{meg-evett} \textit{almákát}.
    Kati Prt-ate apple.Pl.Acc

That themes like \textit{almákát} ‘apples’ cannot appear in the environment of event maximalizing elements follows from the fact that the event maximalizing operator $\textit{MAX}_E$ encoded in the particle \textit{meg} can only apply to events that are ordered with respect to the scalar arguments of their verbal predicates such that they function as a measuring device allowing the identification of the size of the denoted events. Since a measuring scale cannot be deduced with bare cumulative NPs, \textit{MAX}_E cannot apply (Filip 2008).

Cross-linguistically, it is not clear whether such an effect characterizes preverbs in languages such as Dutch and German. As also noted by Kardos (2019: 506–507 fn. 20), speaker judgements vary regarding the co-occurrence of particle verbs and themes with cumulative reference in these languages. In Travis (2010: 248, (10)), the German sentence \textit{Ich habe zwei Stunden lang Weinflaschen ausgetrunken} ‘I drank up wine bottles for two hours’ is shown to be grammatically somewhat questionable, whereas in Fleischhauer and Czardybon (2016: 189, (29b)) the sentence \textit{Der Mann hat Äpfel aufgegessen} ‘The man ate up apples’ is marked as clearly ungrammatical. The latter example suggests that German particles like \textit{auf} are similar to Hungarian verbal particles in that they also have an event-maximalizing role.

Another important consequence of event maximalization is that, in the presence of a verbal particle (10a) or a result phrase (10b), the attainment of a specific final state cannot be cancelled.

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not play a role in the present analysis, they will not be discussed here, hence the functional domain above vP will not be illustrated.
The negation of the inference that the apple completely disappeared in (10a) and that the chicken became crispy in (10b) results in infelicity. This is evidence that the presence of the particle meg and that of the result predicate ropogósra 'lit.) onto crispy' ensures the attainment of the final states of being “gone” and crispy, respectively.

Another important syntactic effect of particles like meg in the examples discussed so far is that they must appear with accusative-marked incremental themes. By contrast, in the absence of meg, the theme argument may also be assigned a case other than accusative. Compare and contrast the (a) and (b) examples in (11) and (12).

(11) a. János tíz perc alatt/*tíz percig meg-evett egy almá.
    János ten minute under/ten minute for Prt-ate an apple.Acc
    ‘János ate (up) an apple in/*for ten minutes.’

    b. *János meg-evett egy almából.
    János Prt-ate an apple.Ela

(12) a. János tíz perc alatt/tíz percig evett egy almá.
    János ten minute under/ten minute for ate an apple.Acc
    ‘János ate an apple in ten minutes/János spent ten minutes eating an apple.’

    b. János tíz percig/tíz perc alatt evett egy almából.
    János ten minute for/ten minute under ate an apple.Ela
    ‘János spent ten minutes eating from an apple.’

As the examples show, the particle verb meg-evett ‘Prt-ate’ requires the accusative case marking -t on the theme (11a) and rejects the constituent egy almából ‘from an apple’, which carries the elative case marking -ból (11b) and is associated with the meaning that the apple has been partially affected in the denoted eventuality. By contrast, the particleless verb evett ‘ate’ can occur either with a theme carrying accusative case, as in (12a), or one associated with elative case, as in (12b). These facts are compatible with the standard assumption that accusative case is assigned by little v via Agree. When discussing data from Finnish, MacDonald argues that ‘given the structural proximity of v to Asp, there is no syntactic reason why the internal argument cannot Agree with Asp as well’ (MacDonald 2008b: 176). The representation that he gives for Finnish Maija luki kirjan ‘Mary read a book (and finished it)’ is as follows:
The syntactic representation proposed for the Hungarian counterpart of the Finnish sentence above is given below, where, again, the verb is represented in its base-merged position:

(14) … vP
    DP  v’
    ∆  Maija v AspP
        Asp VP
        V luki
        NP kirjan (Acc.)

(MacDonald 2008b: 175, (18))

An important difference between Finnish and Hungarian when it comes to these structures is that whereas [Spec, AspP] is filled by an overt verbal particle in Hungarian (see (14)), there is no overt marking element in Asp or [Spec, AspP] in Finnish (see (13)). Likewise, the particle verb el-olas ‘Prt-read’ in (15) is also incompatible with a theme argument that is assigned a case other than accusative. This is shown below.

(15) *Kati el-olasott egy könyvből.
    Kati Prt-read a book.Ela

The particleless verb olvasott ‘read’, on the other hand, readily accepts objects with accusative case or elative case associated with a partitive reading, as illustrated in (16).

(16) a. Kati tíz perc alatt/tíz percig olvasott egy könyvet.
    Kati ten minute under/ten minute.for read a book.Acc
    ‘Kati read a book in/for ten minutes.’
  b. Kati tíz percig/*tíz perc alatt olvasott egy könyvből.
    Kati ten minute.for/ten minute under read a book.Ela
    ‘Kati read from a book for/*in ten minutes.’
Overall, then, MacDonald (2008b: 171) seems to be right in arguing that case and aspect are independent syntactic categories, as evidenced by the fact that, for example, atelic stative structures also contain objects carrying accusative case (see the Hungarian examples in (31a) and (32a) below and the Finnish examples in MacDonald (2008b: 175, (17a) and (17b)). However, it appears that aspect and case are also related in a way that once AspP is projected, the morphosyntactic properties of the internal theme argument inside VP are constrained such that this argument must receive accusative case unless the internal argument is assigned nominative case in [Spec, TP] as the subject of the sentence in the case of unaccusatives. On the other hand, Hungarian objects alone do not contribute to the aspectual interpretation of the sentence in the absence of AspP regardless of the case assigned to them, as shown in (17).

For more on this regarding other languages, see also Pereltsvaig (2000) and Travis (2010). The discussion in Section 3.6 will also further address the role of objects in aspectual interpretations across languages.

(17)  
a. Kati tíz percig/*tíz perc alatt hámozta a krumplit.  
Kati ten minute.for/ten minute under peeled the potato.Acc  
‘Kati spent ten minutes peeling the potatoes.’  
b. Kati tíz percig/*tíz perc alatt hámozott a krumpliból.  
Kati ten minute.for/ten minute under peeled the potato.Ela  
‘Kati spent ten minutes peeling some of the potatoes.’  
c. Kati tíz perc alatt/*tíz percig meg-hámozta a krumplit.  
Kati ten minute under/ten minute.for Prt-peeled the potato.Acc  
‘Kati peeled the potatoes in/*for ten minutes.’

As shown above, the particleless verb hámoz ‘peel’ in (17a) and (17b) heads an atelic predicate regardless of the type of case that is assigned to the internal theme argument, whereas the particle verb meg-hámoz ‘Prt-peel’ and the accusative object in (17c) form a telic predicate. By contrast, in English and other similar languages, an accusative DP that is also bounded is sufficient in the environment of the verb peel to express a telic situation.

Verbal particles like meg may also be attached to stative verbs like ért ‘understand’ and ismer ‘know’. The particle verbs meg-ért ‘Prt-understand’ and meg-ismer ‘Prt-know’ are no longer stative but they express change-of-state events.

(18)  
a. János értette a feladatot.  
János understood the task.Acc  
‘János understood the task.’

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10 For more on the relationship between argument structural properties and event structural properties in Hungarian, see Kardos and Pethő (2019).
11 This generalization pertains to non-creation/non-consumption predicates. As discussed in Section 3.4.3, creation/consumption predicates can be interpreted telically with bounded, accusative objects, although an atelic reading is also allowed with such objects.
12 Pereltsvaig (2000) argues for three different cases for objects across languages: Inherent Case, Structural Accusative Case and default objective Case. She focuses on Structural Accusative Case and default objective Case in her paper and claims that these cases are checked in different positions in the syntax, where the two positions are [Spec, AspP] and [Spec, VP], respectively. In this work it is assumed that Hungarian objects are assigned case in their base position in the VP, whereas in languages like English accusative case is assigned to objects in the specifier of an aspectual functional projection above VP (see also Borer 2005).
The examples in (a) both describe stative situations, whereas the examples in (b) express telic changes of state. In (18b) the experiencer, János, ends up in the mental state of understanding the task, whereas in (19b) Bálint ends up in the final state of knowing the teacher. The telicity of the examples in (b) is due to the particle meg functioning as an event maximizer in [Spec, AspP], whereas the atelicity of the examples in (a) is attributed to the lack of AspP below vP.13 Crucially, we side with Borer (2005) in claiming that “atelicity is lack of telicity” (Borer 2005: 125), i.e. there is no specific atelic structure in the syntax: atelicity arises in the absence of AspP. Consider the representation of (18a) in (20), whereas (18b) is illustrated in (21).

13 For a semantic analysis of verbal particles telicizing stative psych predicates, see Eszes (2008).
As far as resultative predicates are concerned, I first note that they are frequently sublative case-marked, where the sublative suffix -ral-re is primarily a directional case suffix expressing the meaning ‘onto’. The RP is merged inside VP and moves to [Spec, Asp], where it exerts its telicizing function by virtue of checking the [+telic] and [+maximal] features. As opposed to particles like meg, the RP has two functions: it turns the VP telic and it also specifies the result state. Sentence (7b), repeated as (22), is represented in (23). It must also be noted that the final word order characterizing this example is achieved by further movements of the RP and the verb to the specifier/head position of TP above vP, see also fn. 9 above.

(22) Kati két óra alatt/*két óráig ropogósra sütött egy csirkét.
     Kati two hour under/two hour.for crispy.Sub roasted a chicken.Acc
     ‘Kati roasted a chicken crispy in/*for two hours.’

(23) \[
\begin{array}{c}
\text{DP} \\
\triangle \quad \text{vP} \\
\text{Kati} \quad \text{v} \\
\triangle \quad \text{vP} \\
\text{AspP} \\
\triangle \quad \text{vP} \\
\text{Asp’} \\
\triangle \quad \text{vP} \\
\text{ropogósra Asp} \\
\quad \text{[+telic, +maximal]} \\
\text{VP} \\
\quad \text{[+telic, +maximal]} \\
\text{VP} \\
\quad \text{[+telic, +maximal]} \\
\text{VP} \\
\end{array}
\]

Crucially, RPs may co-occur with particles like meg as illustrated by the example in (24). This can be captured if we assume that particles like meg are merged in [Spec, AspP], whereas result predicates are generated as complements of V and stay in situ, as shown in (25) (again, further movements account for the final word order given in (24) below).\(^{14}\)

(24) Kati két óra alatt/*két óráig meg-sütött egy csirkét ropogósra.
     Kati two hour under/two hour.for Prt-roasted a chicken.Acc crispy.Sub
     ‘Kati roasted a chicken crispy in/*for two hours.’

\(^{14}\) As pointed out by Hegedűs (2020), native speakers have different intuitions as to whether result predicates like that in (24) are contained in the same clause that also contains the verbal particle or they are just an afterthought, in which case they are outside the clause. In the latter case, there is an intonational break before the postverbal result phrase. If the particle and the result predicate co-occur in the same clause, it is claimed, following Hegedűs (2020: 328), that, given that they lexicalise information about the same endpoint, they do not challenge the constraint that an event can be delimited only once (cf. Tenny 1994).

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To summarize, in this section, it has been shown that VPrts like *meg* and RPs like *ropogósra* ‘(lit.) onto crispy’ are both capable of checking the [+telic] and [+maximal] features of the Asp head and thus they ensure that the predicates that contain them are telic. An important difference between them is that whereas the former is merged in [Spec, AspP], the latter is generated within the VP and obligatorily moves to [Spec, AspP] from its base position in the absence of a telicity-marking element in this specifier position.

In the next section, it will be shown that other aspectual marking elements may also give rise to telicity, but they do so without ensuring that the verbal predicate is associated with a maximal-event interpretation.

3.4.2 Egyet-type objects

POs like *egyet* ‘one.Acc’, *egy jót* ‘one good.Acc’, and *egy nagyot* ‘one big.Acc’, which typically accompany activity verbs (26), are accusative-marked constituents with no referential value.\(^1\)

\[
\text{(26) Mari aludt egyet/ sétált egy jót/ futott egy nagyot.}
\]

 '\Mari slept one.Acc walked one good.Acc ran a big.Acc’

They are also non-subcategorized and non-thematic objects, which do not denote an affected entity.\(^2\) They stand in contrast to subcategorized, referential and thematic internal arguments,

\(^1\) Semelfactives like *kattan* ‘click’ have also been shown to co-occur with *egyet*, as in *A zár kattant egyet* ‘The lock clicked once’ (Csirmaz 2008b), but this *egyet* behaves differently from the one we discuss in this paper (see also Piñón 2001). For instance, with semelfactives, *egyet* is a multiplicative expressing the number of times the eventuality denoted by the verb occurred, similarly to the multiplicative *egyszer* ‘once’. By contrast, the sentence *János sétált egyet* ‘János went for a walk’ does not express that János walked once, but that he did some walking. For more details, see also Farkas (2021).

\(^2\) Other subclasses of pseudo-objects are reflexives such as *magát* ‘himself.Acc’ in a resultative construction like *álomba sírta magát* ‘(he) cried himself to sleep’ as well as accusative-marked temporal (*két órát* ‘two hour.Acc’), spatial (*két métert* ‘two meter.Acc’) or other measure phrases (*kicsit* ‘little.Acc’ or *sokat* ‘a lot.Acc’); cf. Csirmaz.
as shown by the test of passivization below; cf. also Csirmaz (2008b); Farkas and Kardos (2018) or Farkas (2019, 2021):

(27)  
a. János be-zárta az ajtót.  
János Prt-closed the door.Acc  
az ajtó be van zárva.  
the door Prt is closed  
‘János closed the door. The door is closed.’  
b. János oda ütött egyet/ egy nagyot.  
János there hit one.Acc one big.Acc  
*Egy/ egy nagy oda volt ütve.  
one one big there was hit  
‘János gave it a hit/a good hit. *A hit/a good hit was given (by János).’

The example in (27b) shows that the PO does not denote a referential entity, one that could be interpreted as the undergoer directly affected by the event of the verb, therefore it cannot appear in the derived subject position of passive structures, contra the object in (27a). For further syntactic tests that demonstrate the non-subcategorized, non-referential and non-thematic quality of the PO, see Farkas (2021).

Based on Tenny’s (1994) terminology, Csirmaz (2008b: 169) calls these POs situation delimiters, which turn atelic predicates into telic ones, as evidenced by the coordination test below:

(28) Juli déclött is és délután is pihent egyet.  
Juli morning too and afternoon too rested one.Acc  
‘Juli rested in the morning and she also rested in the afternoon.’ (two eventualities)  
*‘Juli rested in the morning and in the afternoon, too.’ (single eventuality)  
(Csirmaz 2008b: 179, (50c))

This sentence can only be interpreted to describe two distinct resting eventualities, one in the morning and one in the afternoon. This kind of semantics is associated with telic event descriptions (Verkuyl 1993). Coordinated atelic event descriptions, on the other hand, can also be interpreted as expressing a single eventuality, as evidenced by (29), where the resting eventuality holds during both temporal intervals as a single eventuality.

(29) Juli déclött is és délután is pihent.  
Juli morning too and afternoon too rested  
‘Juli rested in the morning and in the afternoon, too.’

(Csirmaz 2008b: 179, (50d))

Farkas and Kardos (2018: 371) argue that these POs encode an aspectual operator that picks out a contextually specified non-maximal subpart of the events in the denotation of the verbal predicate.

(2008b) or Farkas (2021). The analysis proposed here, however, does not extend to POs other than egyet ‘one.Acc’, egy jót ‘one good.Acc’ or egy nagyot ‘one big.Acc’.
(30) Anna szárított egyet a haján,
Anna dried one.Acc the hair.Poss.Sup
de még lehet rajta száríttani.
but still possible it.Sup dry.Inf
‘Anna dried her hair a bit, but it could still use some drying.’

The non-maximality requirement is evidenced by the fact that the event expressed by the verbal predicate in the first clause can still be continued as in (31) or performed once again, as shown below:

(31) Anna szárított egyet a haján,
Anna dried one.Acc the hair.Poss.Sup
aztán később megint szárított egyet rajta.
then later again dried one.Acc it.Sup
‘Anna dried her hair a bit and later she did it again.’

However, there is a minimum amount of hair-drying/sleeping/running etc. event that needs to occur for the truth of sentences containing egyet-type POs. This is illustrated below:

Context: John goes for a run in the forest but after ten meters he stops running and dies of a heart attack.

(32) a. János futott egyet, és hirtelen meghalt. FALSE
János ran one.Acc and suddenly died
‘János went for a run and suddenly died.’

b. János futott, és hirtelen meghalt. TRUE
János ran and suddenly died.
‘János ran and suddenly died.’

As shown by these examples, any amount of running will not satisfy the truth conditions of (32a). However, no such restriction is observable in (32b).

The fact that maximality is not associated with egyet-VPs is also evidenced by their incompatibility with adverbials such as teljesen ‘completely’, egészen ‘completely’ or maximálisan ‘maximally’ (cf. also Farkas and Kardos 2018: 372). Consider the example below:

(33) #Anna teljesen/ egészen/ maximálisan szárított
Anna completely completely maximally dried
egyet a haján.
one.Acc the hair.Poss.Sup
As expected, the verbal predicate szárított egyet a haján ‘dried her hair a bit’ may also appear in a sentence where the attainment of a maximal endpoint corresponding to the state of complete dryness is cancelled.17 This is shown below.

17 Recall from Section 3.4.1 that with particle verbs like megegett ‘ate’ the attainment of a final state cannot be cancelled. This also characterizes the predicate megszáritotta a haját ‘dried her hair’, as shown by the semantic anomaly in #Anna megszáritotta a haját, de az nem lett teljesen száraz ‘Anna dried her hair, but it did not become completely dry’. While for some speakers this sentence may not be fully anomalous, there is a clear difference between the acceptability of (34) and that of the sentence above in this footnote. The example in (34) is completely
(34) Anna száritott egyet a haján,
Anna dried one.Acc the hair.Poss.Sup
de az nem lett teljesen száraz.
but that not became completely dry
‘Anna dried her hair a bit, but it did not become completely dry.’

In addition, in line with the non-maximality requirement, *egyet*-VPs are not associated with a prominent end result state or location, unlike verbal particles or result predicates. Thus, clauses containing a PO are compatible with continuations that express that no specific endpoint has been reached at the termination of the event described by the verbal predicate.

(35) A diák futott egyet anélkül, hogy elért volna valahova.
the student ran one.Acc without that reached would somewhere
‘The student went for a run without getting anywhere.’

Furthermore, predicates encoding an open scale can appear with *egyet* ‘one.Acc’ (36a), but those encoding a closed scale – where maximality is encoded in the verb – cannot (36b); see also Farkas and Kardos (2018: 371):

(36) a. A munkások szélesítettek egyet a hídon.
the workers widened one.Acc the bridge.Sup
‘The workers made the bridge a bit wider.’
b. *A takarítónő üritett egyet a szobán.
the cleaning lady emptied one.Acc the room.Sup

Then, *egyet* ‘one.Acc’ cannot appear with achievements, which are maximally delimited; cf. also Csirmaz (2008b: 179):

(37) *János érkezett egyet.
János arrived one.Acc
As will be further illustrated in Section 3.5, verbs like *érkezik* ‘arrive’ are also incompatible with POs since it is not possible for the latter to be assigned accusative case in an unaccusative structure.

Finally, predicates containing POs have a simple event structure. This is evidenced by their non-ambiguous counterfactual reading with the adverb *majdnem* ‘almost’ (cf. also Farkas and Kardos 2019b), which makes these structures similar to what Piñón (2008a: 91–92) refers to as weak accomplishments.

(38) Ma reggel Mari majdnem futott egyet.
today morning Mari almost ran one.Acc
‘This morning, Mari almost went for a run.’

In the case of this sentence the only reading available is the counterfactual one, in which the adverb *majdnem* ‘almost’ has wide scope and modifies the entire event, so the event almost natural, while the sentence containing the predicate *megszáritotta a haját* ‘dried her hair’ is at least slightly awkward.
begins (i.e. ‘this morning Mari almost went for a run but crucially she did not’). The incomplete interpretation, in which majdnem ‘almost’ has narrow scope and modifies the end of the event, so the event begins and almost ends, is not available.

Overall, then, it is clear that egyet-type pseudo-objects are responsible for non-maximal event delimitation and in this respect they contrast with verbal particles and result predicates, which are associated with a maximal-event interpretation, as discussed in Section 3.4.1.

With respect to their syntax, two properties need to be taken into consideration: (i) POs differ from subcategorized, thematic and referential internal arguments, which are merged inside the VP; and (ii) they are associated with telicity and non-maximality. It is argued that they are merged in the specifier of AspP, where they check the [+telic] and [-maximal] features of the head. The tree diagram proposed for a sentence like Mari futott egyet ‘Mari went for a run’ is given below:

\[(39) \ldots vP \]
\[\downarrow\]
\[DP \]
\[\triangle \]
\[Mari \]
\[v \]
\[\text{AspP} \]
\[\text{egyet} \]
\[\text{Asp’} \]
\[\text{Asp [telic, maximal]} \]
\[\text{VP} \]
\[\downarrow\]
\[V \]
\[\text{futott} \]

In addition, as egyet ‘one.Acc’ does not undergo movement to a position inside a higher (functional) phrase but the verb undergoes head movement (at least) from V to Asp and then to v, at the end of the derivation the postverbal position of egyet is ensured.\(^{18}\)

In sum, in this section I have examined the properties of the Hungarian PO egyet ‘one.Acc’, and some other POs with similar aspectual features. Pseudo-objects have been shown to be different from canonical, referential objects in their grammatical behaviour. In the next section, I turn to a subset of referential objects, created/consumed objects, which can also make verbal predicates telic given their specific grammatical properties.

3.4.3 When telicity is an implicature

\(^{18}\) It must also be noted that speaker judgements vary with respect to the position of the PO egyet ‘one.Acc’ in the Hungarian sentence. For example, speakers of the székely dialect of Hungarian spoken in Transylvania tend to prefer the word order PO-V, as in egyet futott ‘went for a run’, whereas speakers within Hungary often have a preference for the word order variant V-PO, as in futott egyet ‘went for a run’. In addition, it is also known that whereas in the Early Modern Hungarian texts written before 1850 egyet ‘one.Acc’ precedes the activity verb, in the Early Modern and Modern texts written between 1850 and 1950 the same PO appears both in the preverbal and in the postverbal position. As a result of diachronic change, the PO is almost exclusively postverbal in the texts belonging to the second half of the 20th century (for more details, see Farkas 2020b).
CCOs in Hungarian, similarly to English, German, Dutch, Italian and Spanish, can measure out events (Tenny 1994) when associated with quantized reference (É. Kiss 2005, 2008a; Csirmaz 2008a; Piñón 2008a), as shown in (40) below:

(40) a. Mari tíz perc alatt ivott egy limonádét.  
Mari ten minute under drank a lemonade.Acc  
‘Mari drank a lemonade in ten minutes.’

b. János egy év alatt épített egy házat.  
János one year under built a house. Acc  
‘János built a house in a year.’

Kardos (2012, 2019) argues, assuming Beavers’s (2012a) figure–path relations model that it is the unique homomorphic relation obtaining between the part structure of the scalar argument of creation/consumption predicates and that of the theme that gives rise to the aspecual effects characterizing these predicates. On this analysis, verbs like Hungarian eszik ‘eat’ and English eat are four-place predicates expressing a relation between a scalar argument s, a causer y, a figure x, and an event e. Scales are assumed to have a mereological part structure comprising atomic subparts, which are totally ordered states (s0, s1) corresponding to states of affairs in which the referent of the theme has been consumed bite by bite. Consumption scales Scns are characterized as follows:

(41) a. Atomic elements in Scns are si, where i ≥ 0.

b. For any s, sj, sk ∈ Scns, where si and sj are atomic, if si and sj are proper parts of s, si<< sj (i.e. si, the state of having consumed as many bites as i is ordered before sj, the state of having consumed j bites) iff i < j.

(Kardos 2019: 512, (34))

The unique homomorphic relationship that obtains between scales and themes in this predicate class is shown in Figure 1, taken from Kardos (2019: 512), where b1, b2 correspond to the bites the theme can be divided into in an eating event:

Figure 1. The part structure of the consumption scale as determined by the part structure of the theme

On this analysis, consumption (and creation) verbs lexically encode a homomorphic relation between the scale and the theme, which ensures that the initial subevent of the eating event corresponds to a state of affairs wherein not a single bite of the referent of the theme has been consumed and the final subevent corresponds to a state of affairs wherein the theme has
completely disappeared. Telicity obtains if the final subpart of the scale can be determined, as in the case of themes having quantized reference (ibid.).

In the case of non-creation/non-consumption predicates, where the structure of the scale encoded in the head verb is independent of the theme, as in (42), Hungarian predicates containing a quantized theme and a base verb are obligatorily atelic.

(42) a. A pincér tíz percig/?? tíz perc alatt melegített egy tányért.

   the waiter ten minute.for/ ten minute under warmed a plate.Acc
   ‘The waiter warmed a plate for/??in ten minutes.’

b. Mari tíz percig/*tíz perc alatt takarított egy asztalt.

   Mari ten minute.for/ten minute under wiped a table.Acc
   ‘Mari wiped a table for/*in ten minutes.’

As expected based on the discussion in Subsection 3.4.1, the telicity of these predicates is ensured by constituents external to the verb and the thematic object; it is either a verbal particle, a result predicate or a pseudo-object that is directly responsible for non-cancellable telic interpretations in the class of non-creation/non-consumption predicates. The difference in the semantics of the predicates representing the two predicate classes is also captured in the logical representations below the examples in (43) and (44), where the function $f'$ is responsible for picking out the final subpart of consumption scales in the presence of quantized themes.

(43) a. Peter ate two pears. (specific goal point → telic predicate)

\[\exists s \exists x \exists e [\text{eat}(\text{peter}, x, s, e) \land \text{SOURCE}(s_0, s, e) \land \text{GOAL}(f'(x), s, e) \land 2\text{pears}(x)]\]

b. Peter ate pears. (non-specific goal point → atelic predicate)

\[\exists s \exists x \exists e [\text{eat}(\text{peter}, x, s, e) \land \text{GOAL}(g, s, e) \land \text{pears}(x)]\]

(44) a. The soup warmed. (specific goal point → telic predicate)

\[\exists s \exists e [\text{warm}(\text{soup}, s, e) \land \text{GOAL}(\text{warm}, s, e)]\]

b. The soup warmed. (atelic) (non-specific goal point → atelic predicate)

\[\exists s \exists e [\text{warm}(\text{soup}, s, e) \land \text{GOAL}(g, s, e)]\]

(Kardos 2019: 515, (36)–(37))

Crucially, however, Hungarian objects like egy limonádét ‘a lemonade.Acc’ and egy házat ‘a house.Acc’ can just as easily give rise to atelic interpretations with ivott ‘drank’ and építtet ‘built’, respectively, as shown in (45) below.

\[\text{(Kardos 2019: 515, (36)–(37))}\]

19 According to some speakers, predicates like sütöttém sütémszínyeket ‘I baked cookies’ can also be telic despite the fact that the theme does not have quantized reference (see also É. Kiss 2008c: 143). Other speakers find this example marginally acceptable with the adverbial egy fél órával att ‘in half an hour’ in an out-of-the-blue context. I believe that this predicate expresses an atelic activity, but in a context where the agent does this activity habitually, a telic interpretation may be available in the presence of an alatt-adverbial, but, crucially, not without it. For more on similar effects in English, see Dowty’s (1979: 61) discussion of the example John swam in an hour.

20 In English, however, the quantized nature of the theme in predicates like widen the road and warm a plate is sufficient for telicity to obtain given specific contextual conditions (cf. Hay et al. 1999).

21 Boldface indicates constants in the representations and $g$ is the goal point associated with scale $x$.

22 There is now a good amount of literature on variable telicity effects in different predicate classes such as accomplishments like eat the soup, activities like run, and degree achievements like warm (see, for example, Hay et al. 1999 and Smollett 2005).
Here it is important to reiterate Borer’s (2005: 153–154) idea that the projection of some grammatical structure (due to, for example, a DegP headed by completely in straighten the rope completely) is what ensures the impossibility of cancelling telicity. If our hypothesis that no quantity structure (using Borer’s terminology) is associated with Hungarian predicates like those in (45) is correct, it is perhaps to be expected that telicity in such cases is cancellable. This idea is reformulated by MacDonald (2023a: 20) as follows: “structural meaning gives rise to non-defeasible entailments, while conceptual meaning gives rise to defeasible implicatures”.

Once the particle meg appears in the predicate, however, which, as argued above, occupies [Spec, AspP], telicity is not cancellable. The representation of (46) is given in (47).

(46) Mari tíz perc alatt/ *tíz percig meg-ivott
ten minute under ten minute for Prt-drink
a lemonade. Acc
‘Mari drank a lemonade in/*for ten minutes.’

(47) \[
\begin{array}{c}
\text{DP} \\
\text{Mari} \\
\text{\quad v} \\
\text{AspP} \\
\text{\quad meg} \\
\text{Asp'} \\
\text{Asp [+telic, +maximal]} \\
\text{VP} \\
\text{\quad V} \\
\text{\quad DP} \\
\text{\quad ivott} \\
\text{egy limonádét}
\end{array}
\]

In light of this, a question arises regarding the English data: Why is it that English creation/consumption predicates like drink a lemonade and build a house, which contain a theme with quantized reference and no verbal particle, are preferably telic? Borer’s (2005) answer to this question is that such predicates are associated with a quantity structure and thus they are telic, whereas according to Travis’s (2010: 261–262) analysis of these and other similar data, the telicity of these predicates is due to a zero telicity marker in the complement of the lower VP. However, this position can also be filled, as in the case of resultative expressions like that in (48).

(48) The children hammered the nail flat (in/*for three minutes).
In Hungarian, by contrast, we argue that non-cancellable telicity is due to verbal particles like *meg* and result predicates, among other aspectual markers, which exert their telicity-marking function in a position higher than VP (i.e., in [Spec, AspP]).

Finally, it is important to note that Hungarian predicates whose telicity is an implicature as shown above, are associated with a simple event structure. This is evidenced by their non-ambiguous counterfactual reading when they appear with the adverb *majdnem* ‘almost’ (Piñón 2008a: 92).

(49) Péter majdnem evett egy szendvicset.
    Péter almost ate a sandwich.Acc
    ‘Péter almost ate a sandwich.’

The example above can only receive a single reading in which the adverb *majdnem* ‘almost’ has wide scope and modifies the whole event such that Péter did not begin eating a sandwich. The incompletive reading such that Péter did not finish eating a sandwich is not readily available. Once the verbal particle *meg* appears in the sentence, however, both readings become available (Piñón 2008a: 93).

(50) Péter majdnem meg-evett egy szendvicset.
    Péter almost Prt-ate a sandwich.Acc
    ‘Péter almost ate (up) a sandwich.’

The predicate in (50) can either mean that Péter did not even begin eating a sandwich (counterfactual interpretation) or that he began eating a sandwich but did not finish it (incompletive interpretation). Likewise, the predicate *majdnem felépített egy házat* ‘almost built a house’ is ambiguous, as illustrated by the examples below:

(51) a. Péter majdnem felépített egy házat, de végül
    Péter almost Prt-built a house.Acc but eventually
    nem kezdett hozzá, mert nem kapott hitelt.
    not began Prt because not received loan.Acc
    ‘Péter almost built a house but he failed to begin building it as he had not received a loan.’

b. Péter majdnem felépített egy házat, de végül
    Péter almost Prt-built a house.Acc but eventually
    nem fejezte be mert nem kapott hitelt.
    not finished , Prt because not received loan.Acc
    ‘Péter almost built a house but he failed to finish building it as he had not received a loan.’

As shown above, *majdnem felépített egy házat* ‘almost built a house’ is compatible with a scenario in which Péter did not even begin building a house and also with one in which he began building a house but failed to finish it. If we take event structural facts to be reflected in the syntax, as argued by Borer (2005), the data in (51) can be regarded as evidence for a more complex syntactic structure associated with these predicates. However, in light of this discussion and that of *egyet*-type marking elements in Section 3.4.2 we conclude that both telicity and event maximality seem to be necessary for a complex-event interpretation.
3.5 Further predictions of the analysis

After giving an analysis of three classes of telicity marking strategies in Hungarian, in this section of the paper I present our discussion of two consequences of the analysis by focusing on various co-occurrence restrictions pertaining to inner aspectual marking elements.

The first prediction of our analysis is that VPrts like meg and el and POs cannot co-occur in the same verbal predicate because they compete for the same position in the Hungarian sentence, with [Spec, AspP] being the merged position of these elements. This is confirmed by the ungrammaticality of the following examples (see also Csirmaz 2008b), with (52a) represented in (53).

(52) a. *Kati meg-evett egyet egy almát.
     Kati Prt-ate one.Acc an apple.Acc

     b. *Kati el-futott egyet (az egyetemig).
     Kati Prt-ran one.Acc the university. Ter

(53) *… vP
     △
     DP
     Kati v AspP
      meg/egyet Asp’
      Asp [+telic, ±maximal] VP
      V evett DP
      egy almát

Resultative predicates like that in (54) are also expected to be ungrammatical with egyet ‘one.Acc’ in them, since although result predicates are assumed to be merged as complements in VP, whereas POs are merged in [Spec, AspP], they are associated with the features [+maximal] and [-maximal], respectively. This causes a maximality conflict in the sentence.23

(54) *A hó pocsolyává olvadt egyet.
     the snow puddle.Tra melted one.Acc

Crucially, the complementary distribution of POs and VPrts only applies to separable VPrts which are associated with the [+telic] and [+maximal] features. As shown in Hegedűs and Dékány (2017) and also discussed earlier in our paper, particle verbs may also be associated with an inseparable particle, where the particle appears in the immediately preverbal position in both neutral (55a) and non-neutral (55b) sentences (e.g. declaratives with negation).

23 The structure in (54) is also ruled out since the PO cannot be assigned accusative case in the environment of the unaccusative verb olvad ‘melt’, as evidenced by the ungrammaticality of the string *A hó olvadt egyet ‘(lit.) The snow melted one.Acc’.

88
(55) a. A diák felvételizett a Bölcsészettudományi Karra.
   The student took an entrance exam at the Faculty of Humanities.

b. A diák nem felvételizett/nem vételizett fel
   The student did not take an entrance exam at the Faculty of Humanities.

If the assumption of Hegedűs and Dékány (2017) that inseparable particles are merged low in a complement position is correct and the claim that POs are merged in [Spec, AspP] is also correct, inseparable particle verbs should be compatible with POs. This is borne out in (56):

(56) A diák felvételizett egyet a Bölcsészettudományi Karra.
   The student took an entrance exam at the Faculty of Humanities.

Also, there is evidence for particles like szét to be merged in [Spec, AspP] when they are attached to inseparable particle verbs like felvételizik ‘take an entrance exam’ as the particle szét turns the base predicate, which is atelic, into a telic one.24

(57) a. A diák egy óráig/egy óra alatt felvételizett.
   The student spent an hour taking an entrance exam.

b. A diák egy óra alatt/egy óraig szét-felvételizte az agyát.
   The student got exhausted with taking an entrance exam in/*for an hour.

(adapted from Hegedűs and Dékány (2017: 75, (20b)))

Moreover, POs can also co-occur with separable particles that do not have a telicizing function, as shown below.

(58) A bácsi el-töprengget/el-mélazott egyet
   The old man Prt-pondered/Prt-mused one.

a gazdasági válságon.
   the economic crisis.

‘The old man mulled over the economic crisis.’

(adapted from Csirmaz (2008b: 185, (66a)))

Contra Csirmaz (2008b: 185), who rules out the above sentence and argues that POs can never appear with particles, independently of the aspectual contribution of the latter, such sentences are considered here to be fully acceptable. As in such and similar cases the particle does not

24 Although this process is not common in Hungarian, there are some more examples illustrating the same phenomenon in Hegedűs and Dékány (2017).
make the predicate telic, it is arguably located in a different position than [Spec, AspP] and the PO enters the syntax in [Spec, AspP].

Another significant co-occurrence restriction is one pertaining to POs and accusative DP arguments, and is illustrated below:

(59) a. *János evett egyet egy levest.
    János ate one.Acc a soup.Acc

    b. *Józsi igazított egyet egy nyakkendőt.
    Józsi fixed one.Acc a tie.Acc

What is puzzling about the examples above is that although POs and thematic objects are argued in our analysis to occupy different positions in the syntax (and hence they do not compete for the same syntactic position, as shown below), the examples in (59a) and (59b) are ungrammatical.

(60) *... vP
    
    DP  
    △  
    János v AspP
        egyet Asp’
            Asp [+telic, -maximal] VP
                v P evett DP
        egy levest

This may have to do with how (accusative) case assignment and inner aspect interact in Hungarian. On the one hand, as has already been noted in Section 3.4.1, in the presence of event-maximizing verbal particles like meg, merged in [Spec, AspP], the assignment of accusative case to the internal theme argument becomes obligatory; cf. the following examples, repeated from Section 3.4.1:

(61) János meg-evett egy almát/*egy almából.
    János Prt-ate an apple.Acc/an apple.Ela
    ‘János ate (up) an apple/*from an apple.’

Conversely, in the absence of an event-maximizing verbal particle like meg, the theme may receive accusative case (e.g. egy almát ‘an apple.Acc’) or elative case (e.g. egy almából ‘an apple.Ela’).

(62) János evett egy almát/egy almából.
    János ate an apple.Acc/an apple.Ela
    ‘János ate an apple/from an apple.’
On the other hand, the incompatibility of POs and accusative theme DPs is assumed to be a consequence of the theme DP’s inability to get accusative case from v since egyet ‘one.Acc’ intervenes between v and the theme DP. By contrast, non-accusative theme DPs can appear in the presence of egyet-POs, as evidenced by the following examples:

(63) a. Kati evett egyet a levesből.
    Kati ate one.Acc the soup.
    ‘Kati ate some soup.’

b. Józsi igazított egyet egy nyakkendőn.
    Józsi fixed one.Acc a tie.
    ‘Józsi fixed a tie a little.’

The facts confirm then that there is no one-to-one correspondence between case and inner aspect in Hungarian: accusative case and the boundedness of the theme alone will not give rise to telicity in the case of the majority of verbal predicates, contra what we often see in English and other similar languages (see Section 3.4.1). Telicity is guaranteed in the presence of aspectual markers contributing to the aspectual interpretation of the sentence once they merge in the syntax due to the presence of AspP in the event domain.

### 3.6 Revisiting the role of objects in aspectual interpretations

So far it has been proposed that, (i) similarly to many other languages, Hungarian has a vP-internal aspectual projection, AspP, which is directly responsible for non-cancellable telicity effects induced by verbal particles, result predicates and non-subcategorized pseudo-objects and (ii) telicity may also obtain in the presence of bounded themes in the class of creation/consumption predicates. As opposed to the previous case, where telicity is an entailment, telicity in this latter case is an implicature and so it is cancellable.

Before I proceed to how the morphosyntactic properties of the Hungarian event domain determine (im)possible verb meanings in this language in Part 2, I also wish to reflect on some larger theoretical implications of the analysis in this chapter. An important claim in the discussion above is that Hungarian objects do not typically have the aspectual effect that is well known from the literature on predicates associated with incremental themes like the mountain in climb the mountain in English (i.e. the quantization properties of the verbal predicate are inherited from the theme). Most recently, however, even the aspectual contribution of English objects has been called into question by MacDonald (2023a, b) in a revised version of the telicity account of MacDonald (2008), discussed in Section 3.3.2. In MacDonald (2023a, b) it is claimed that it is only initial points, represented syntactically as <ip>, and final points, represented as <fp> in the syntax, that contribute to the telicity of the VP. It is the Asp head above the VP that introduces the feature that is interpreted as an initial point on the scale encoded by the verbal predicate, and the element that introduces the final point (e.g. a goal PP) is merged within the scope of the aspectual operator OP\textsubscript{MAX} in Spec, AspP, in the spirit of the proposal put forward in this chapter with respect to the structure of the event domain in Hungarian. This operator is responsible for event maximalization. It is only eventive predicates, which can be analyzed in terms of a scalar model,\(^{25}\) that are associated with OP\textsubscript{MAX}, which predicts that statives are atelic regardless of the presence of a goal PP in the predicate. This is illustrated in (64).

\(^{25}\) For more on scalar and non-scalar verbal predicates, see Chapter 5.
Pat was into folk music for a bit. MacDonald (2023a: 2, (7))

As shown above, the presence of the into-PP does not yield telicity. This is borne out on an analysis in which statives like that in (64) are not associated with an aspectual functional projection in their syntax. A key difference between English PPs and Hungarian verbal particles like meg, on this account, is that meg lexically specifies <fp> and OP$_{\text{MAX}}$, whereas English PPs are only associated with <fp>. A somewhat similar characterization is given of the difference between English and Hungarian result-denoting elements in Chapter 6, where it will be claimed that English resultatives only express a result state, whereas Hungarian telicizing particles encode an event-maximizing operator.

As for NP objects, MacDonald argues that they “do not play a syntactic role” in the calculation of telicity values, or “at least their syntactic role is diminished” (ibid. 3), contra numerous previous proposals (see Borer 2005, Ritter and Rosen 1998, Travis 2010, among many others). Data from multiple languages provide support for this, including data from English, as in (65).

Jerry drank it in/for 10 minutes. MacDonald (2023a: 3, (12a))

What is interesting about (65) is that the pronominal object does not ensure a telic interpretation. Telicity interpretations associated with objects seem to be a conceptual effect; MacDonald (ibid. 21) argues that “if all conceptual information is removed, as with it” in (65), atelicity also becomes a possibility. In other words, objects do not seem to have as important a role in the coming about of inner aspectual values as previously thought. The data from Hungarian provided in this chapter, and also from other languages, such as Mandarin and Russian, further discussed in MacDonald (2023a, b) and in Chapter 7, further corroborate this view.

In the next part of the thesis, my main goal is to show how the syntactic findings in this chapter can be brought in interaction with what verb meanings are possible and what verb meanings are ruled out in Hungarian. For example, I provide an analysis of why Hungarian does not seem to have English path/result verbs such as enter, clean, ascend and descend. Before that, I first discuss key assumptions about verb meanings based on research from the past few decades.
Part II  The lexical semantics of verbal predicates
4 Background: Key questions in lexical semantics

4.1 Introduction

In this chapter, I set the stage for my discussion of how events are lexicalized in Hungarian against the backdrop of the structural constraints characterizing the event domain, as shown in Chapter 3. I achieve this by first giving an overview of some key questions that lexical semanticists and scholars interested in the syntax-semantics interface have investigated and possible answers that they have provided to these questions in recent decades.

Lexical semantics is the study of word meaning and its relationship to a word’s grammatical properties. An important assumption that many scholars in this field of inquiry share is that word meanings are structured and their internal structure determines their syntactic behavior. More specifically, it is claimed that the fact that certain meaning components constitute full verb meanings and members of other lexical categories has direct consequences with respect to the elements that appear in the syntactic environment of these words and their morphosyntactic realization. A central goal in lexical semantics is thus to provide a theory of word meaning that allows us to make predictions about all possible and impossible structures with which words within and across languages are compatible. The following three questions have received a lot of attention in lexical semantic research: (i) What is the most plausible representation of word meaning? (ii) What is the nature of the mapping between a word’s lexical semantics and its syntactic realization? and (iii) How do languages differ when it comes to the linguistic expression of various facets of real-world situations?

In what follows, I will explore some answers that have been provided to these questions in the past 50 or so years. I will focus on verb meaning as it is verbs that have generated the most amount of interest for lexical semanticists, at least in the generative tradition. In Section 4.2, I look into the internal structure of verb meanings and discuss theories of word meaning representation and the linking between lexical semantics and syntax. In Section 4.3, I focus on constraints on the lexicalization of events across languages, whereas in Section 4.4, I further discuss how verb meaning is structured by briefly addressing two argument alternations: the causative–inchoative alternation and the locative alternation. The discussion in this section is meant to serve as a case study to explore what kind of challenges arise when it comes to the linking at the syntax–semantics interface. In Section 4.5, I conclude with some final remarks before I proceed to discuss event lexicalization in the Hungarian sentence and lexical semantic constraints in Hungarian verbs in the context of the manner-result complementarity hypothesis in Chapters 5 and 6, respectively.

4.2 Verb meanings are highly structured

In this section, I discuss two strands of research into the representation of verb meaning: I begin by giving a brief overview of theories of thematic roles and problems with these theories. Then I discuss more recent theories of predicate decompositions, which have become largely popular not only in lexical semantics but also in syntactic analyses of various argument structural phenomena (see Harley 2005; Ramchand 2008; Acedo-Matellán and Mateu 2014; Alexiadou et al. 2015).

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26 This chapter is a modified and abridged version of Kardos (2021).

27 As noted by Levin and Rappaport Hovav (2005: 19), situations as described by various linguistic units are construals of real-world situations and not the real-world situations themselves.
4.2.1 Theories of thematic roles

It is Fillmore’s (1968) case grammar that is the best-known early example of a theory of word meaning based on thematic roles. A basic tenet of this work is that the role participants play in the events described by verbs has direct implications as to the syntactic realization of the arguments denoting these participants. Take, for example, the verb break. It is assumed that a grammatically relevant facet of meaning encoded in this verb is that it assigns an agent role to the argument that denotes the initiator of the breaking event and a patient role to the argument denoting the participant whose referent undergoes a change of state. Verbs differ with respect to the type of roles they assign to their arguments. Some examples of thematic roles, taken from Fillmore (1971), are given below.

(1)  
   a. Agent (A), the instigator of the event.
   b. Counter-agent (C), the force or resistance against which the action is carried out.
   c. Object (O), the entity that moves or changes or whose position or existence is in consideration.
   d. Result (R), the entity that comes into existence as a result of the action.
   e. Instrument (I), the stimulus or immediate physical cause of an event.
   f. Source (S), the place from which something moves.
   g. Goal (G), the place to which something moves.
   h. Experiencer (E), the entity which receives or accepts or experiences or undergoes the effect of an action.

(Fillmore 1971: 376)

The role “counter-agent” is lesser-known than the roles “agent,” “instrument,” “source,” “goal,” and “experiencer,” whereas the role “object,” which for many scholars in more recent works subsumes the result role, is often referred to as “theme” or “patient” (Levin and Rappaport Hovav 2005: 36). Some scholars use the labels “theme” and “patient” interchangeably, but when they are taken to name different entities, the former is meant to refer to participants undergoing a change of location or possession, whereas the latter refers to affected or created entities, or entities that undergo a change of state (Cruse 2011: 289–290; Wechsler 2015: 58).

The idea is that semantic role lists like the one above allow us to provide descriptions of verb meanings based on a specific set of unanalyzable semantic labels and to make predictions as to what kind of argument realization patterns verbs are associated with. These descriptions, illustrated below, have been referred to as case frames by Fillmore (1968) or theta-grids by Stowell (1981).

(2)  
   a. destroy <agent, patient>
   b. open <agent, patient>
   c. fear <experiencer, theme>
   d. put <agent, theme, location>

In order to derive various structural properties of the nominal arguments that name event participants, a variety of theories of linking focusing on subject and object selection have been proposed. Many of these theories share the conjecture that semantic roles are arranged in universal grammar according to their semantic prominence and thus they form hierarchies (Fillmore 1968; Jackendoff 1972, 1990; Baker 1989; Van Valin 1990; Grishman 1990). Illustrative examples are provided in (3) from Baker (1989) and Jackendoff (1990).
Thematic hierarchies like those in (3) are also often accompanied by a hierarchy of grammatical relations along the lines of (4).

(4) Subject > Object

The mapping mechanism between hierarchies like those in (3) and (4) is the following: If there is an agent selected by the verb, it is linked to the subject position in the sentence. In the absence of an agent, it is the argument carrying the role that comes after the agent in the hierarchy (i.e., the instrument in (3a) and the patient or beneficiary in (3b) that is predicted to occupy the subject position. If the verb is transitive, the second argument is linked to the object, the second most prominent grammatical relation according to (4).

Theories of thematic roles have appealed to scholars for their allowing us to account for data like those in (5).

(5) a. Kate opened the door.
   b. The door opened.

In (5a), the agent of the verb open is mapped to the subject and the theme is mapped to the object, as expected on the assumption that these two roles constitute part of the inventory of thematic roles available in universal grammar and semantic prominence between these roles is preserved at the syntax–semantics interface. In (5b), the theme, which is the only argument of intransitive open, becomes the subject.

In addition to these results, researchers have also identified a number of problems with thematic roles: For example, data like those in (6) pose a challenge for theories of thematic roles. The verbs in the examples in (6) select the same kind of arguments, and yet they can appear in different argument realization patterns, which is unexpected under the assumptions discussed above.

(6) a. The public liked John.
   b. John appealed to the public.

To overcome this and other problems that arise with the traditional notion of semantic roles (for a detailed critical discussion, see Rappaport Hovav and Levin 1988; Levin and Rappaport Hovav 2005; and Riemer 2010), an alternative approach is taken to semantic roles by researchers like Dowty (1989, 1991) and Van Valin (1990), who no longer treat semantic roles as unanalyzable chunks of lexical meaning, but as a collection of lexical entailments or generalizations with respect to the arguments of verbs. This is a significant step toward a thematic-role-based theory of word meaning that has a greater explanatory power in comparison to previous analyses, since thematic roles are no longer used only for the purpose of word meaning representation but they become testable. Furthermore, lexical entailment-based theories also open up the possibility of accounting for various argument realization phenomena based on purely semantic grounds. This is, for example, achieved in Beavers’s (2006, 2010) work on argument/oblique alternations, where the author’s main goal is to show
that the morphosyntactic realization of arguments is directly determined by the implicational structure between the lexical entailments associated with the alternants in an alternation.

Beavers’s (2006, 2010) theory is based primarily on Dowty’s work, where two semantic proto-roles are proposed, the proto-agent and the proto-patient, and they are associated with the following lexical entailments.

Proto-agent entailments

(7) a. Volitional involvement in the event or state.
   b. Sentience (and/or perception).
   c. Causing an event or change of state in another participant.
   d. Movement (relative to the position of another participant).
   e. (Exists independently of the event named by the verb.)

Proto-patient entailments

(8) a. Undergoes change of state.
   b. Incremental theme.
   c. Causally affected by another participant.
   d. Stationary relative to movement of another participant.
   e. (Does not exist independently of the event, or not at all.)

(Dowty 1991: 572, (27) and (28))

On Dowty’s view, semantic roles are thus clusters of lexical entailments; the goal of this theory is to characterize event participants as more or less prototypical agents or patients. The principle necessary for argument selection is formulated as follows.

(9) **Argument selection principle**: In predicates with grammatical subject and object, the argument for which the predicate entails the greatest number of proto-agent properties will be lexicalized as the subject; the argument having the greatest number of proto-patient entailments will be lexicalized as the direct object.

(Dowty 1991: 576, (31))

In light of the two clusters of proto-role entailments and the argument selection principle in (9), we can predict the argument realization behavior of verbs like *murder* in (10).

(10) John murdered Mary.

The argument *John* in the example above is associated with proto-agent entailments and is thus expressed as the subject, whereas *Mary* is a prototypical patient and hence the object of the sentence. To account for the argument structural behavior of verbs having arguments associated with the same set of lexical entailments and for three-argument verbs, Dowty also proposes the following corollaries to his theory:

(11) **Corollary 1**: If two arguments of a relation have (approximately) equal number of entailed proto-agent and proto-patient properties, then either or both may be lexicalized as the subject (and similarly to objects).

(12) **Corollary 2**: With a three-place predicate, the nonsubject argument having the greater number of entailed proto-patient properties will be lexicalized as the direct object and
the nonsubject argument having fewer entailed proto-patient properties will be lexicalized as an oblique or prepositional object (and if two nonsubject arguments have approximately equal numbers of entailed p-patient properties, either or both may be lexicalized as direct object).

(Dowty 1991: 576, (32) and (33))

An important consequence of (11) is that stative predicates like resemble as in John resembles Mary or Mary resembles John can appear with two arguments, each occupying either the subject position or the object position without a difference in the truth-conditions of the sentences containing these arguments (ibid. 556). Furthermore, (12) allows us to predict that verbs like put will co-occur with the participant having the greatest number of proto-agent properties in subject position, the prototypical patient in the direct object position, and a location, the least prototypical patient, expressed as a prepositional phrase, as in John put the book on the desk.

Crucially, Dowty’s influential theory contrasts with earlier theories in that the former does not aim to determine necessary and sufficient conditions for semantic role membership (Levin and Rappaport Hovav 2005: 53; Beavers 2006: 15). Instead, a proto-role is a prototypical characterization of the role event participants have in a situation. As Beavers (2006: 15) notes, a proto-role is “a yardstick against which the properties of different participants in the same event can be compared when determining argument realization.” Furthermore, as Levin and Rappaport Hovav (2005: 64) point out, citing Van Valin (1999), among others, Dowty’s proto-roles do not appear in the representation of a sentence; they are involved in argument selection but they are not assumed to be linked to grammatical functions at the level of syntax (Dowty 1991: 576). However, the way argument realization is envisaged on this analysis leaves some problems unaddressed. For example, it has been suggested that proto-role entailments may have to be ranked differently in the description of argument selection (ibid. 574). This is consonant with the assumption that there seems to be a greater amount of structure with which verbs are associated. This idea is taken more seriously in theories of predicate decompositions, which I will address in the next section.

4.2.2 Decompositional theories

An alternative approach to theories of thematic roles is pursued starting in the 1970s when scholars began to classify verb meanings based on the type of events that verbs describe instead of the event participants with which they are associated. Verb meanings on this view are analyzed in terms of a small set of primitive components in a predicate decomposition, which reflects the structure of the events described by verbs. Numerous proposals have been put forward in the literature as to the number and type of primitive predicates and the internal structure of the decompositions (Jackendoff 1983, 1990; Dowty 1979; Rappaport Hovav and Levin 1988, 1998; Van Valin and LaPolla 1997). Here, I discuss facets of two highly influential proposals: Dowty (1979) and Rappaport Hovav and Levin (1998).

Dowty (1979) proposes that various combinations of primitive units like DO, CAUSE, and BECOME give rise to the meanings that verbs express. An important goal in this research program is to derive the properties of verbs that fall into the four aspectual classes (i.e., states, states,
activities, achievements, and accomplishments) originally identified by Vendler (1957). In addition, central to this type of analysis is the observation that sentences like *The soup is cool*, *The soup cooled*, and *John cooled the soup* seem to correspond to basic event types being embedded in other event types. Consider (13), which contains a simplified version of Dowty’s decompositions associated with these sentences from Wechsler (2015).

(13)  
a. The soup is cool: \texttt{cool}(the.soup)  
b. The soup cooled: BECOME [\texttt{cool}(the.soup)]  
c. John cooled the soup: \exists P[\texttt{P(John)} \text{ CAUSE } \text{BECOME } [\texttt{cool}(the.soup)]]  

(Wechsler 2015: 154, (32))

The representations above allow us to capture that both (13b) and (13c) entail (13a) as a result of each containing the predicate \texttt{cool}. In addition, the decompositions also reflect the fact that verbs like intransitive *cool* and transitive *cool* share selectional restrictions with respect to the subject of the former and the object of the latter (Levin and Rappaport Hovav 2005: 69).

Another advantage of lexical decompositions is that they allow us to give a principled analysis of the scope effects observable with adverbials like *again*, *almost*, and durative adverbials like *for four years*. Dowty (1979) illustrates these effects with examples (14) and (15), among others, where (14) is attributed to Robert I. Binnick in the literature.

(14) The Sheriff of Nottingham jailed Robin Hood for four years.  

(Dowty 1979: 250, (30))

The sentence above has multiple interpretations: The temporal adverbial *for four years* is either meant to describe the length of the jailing activity or it refers to the amount of time that Robin Hood spent in jail. This ambiguity can be nicely captured if a decomposition is proposed where the adverbial has scope over either the entire causative event and thus a durative reading arises, or only the final result, which gives rise to the second reading, also referred to as the internal reading.

A similar effect is observable in the example in (15).

(15) John closed the door again.  

(Dowty 1979: 252, (31))

The sentence above has a repetitive and a restitutive reading. On the repetitive reading, the adverbial *again* has scope over the entire closing activity and thus the sentence is interpreted to describe multiple closing events, whereas on the restitutive reading, where the adverbial has scope over the result state, the sentence expresses that John caused the door to become closed again; in this latter case no earlier closing event needed to happen for the truth of the sentence.

Dowty’s decompositions provide the basis for the event structure templates of Rappaport Hovav and Levin (1998), which also derive Vendler’s (1957) lexical aspectual classes of verbs. Two basic ingredients constitute these templates: Recurring meanings in verbs are represented in the form of the primitive predicates ACT, CAUSE, and BECOME, whereas idiosyncratic meaning is encoded in the root component. Roots can be of two types: Manner roots serve as modifiers to an event templatic ACT operator, whereas result roots fill the

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29 In order to properly derive the temporal properties characterizing members of different aspectual classes, Dowty’s (1979) analysis also relies on interval semantics, which, however, I refrain from discussing in this chapter.

30 For more on these tests in Hungarian, see Chapter 6.
argument position of an event templatic BECOME operator in the decompositions. Specific verbs are instantiated through canonical realization rules, which associate roots with the event templates based on the former’s ontological type (e.g., state, place, manner), the most important property of roots (Levin and Rappaport Hovav 2005: 71). Consider (16)–(19).

(16) a. sweep  
    b. [x ACT <SWEEP>]

(17) a. shovel  
    b. [x ACT <SHOVEL>]

(18) a. transitive break  
    b. [[x ACT] CAUSE [y BECOME <BROKEN>]]

(19) a. transitive cool  
    b. [[x ACT] CAUSE [y BECOME <COOL>]]

The representations above allow us to capture (i) that both (16) and (17) express simple activities by virtue of encoding only a single primitive predicate (ACT), and (ii) that these verbs are also different in that (16a) specifies the manner of activity, whereas (17a) lexicalizes the instrument with which the activity is carried out. As for break and cool in (18) and (19), they are represented as causative verbs expressing a causing activity event and a result state. An important consequence of the distinction between activity verbs like sweep and shovel and causative transitive verbs like break and cool is that the former show a more flexible argument structural behavior, whereas the latter are stricter regarding the expression of their arguments. For example, manner verbs like sweep allow object omission, as in (20a), whereas verbs like break must appear with an explicit object, illustrated in (20b). For more on this distinction, see Section 4.3.2.

(20) a. John swept all day.  
     b. *John broke all day.

Complex-event denoting expressions can also come about via template augmentation, as in the case of the resultative expression in (21), where an activity is combined with a result state through the causative operator CAUSE.

(21) a. Peter ran his shoes ragged.  
     b. [[x ACT<RUN>] CAUSE [y BECOME <RAGGED>]]

Rappaport Hovav and Levin (2001) also propose an argument structural restriction on the event structures illustrated above in an effort to explain why verbs like sweep are more flexible than verbs like break when it comes to the expression of their arguments. They argue that it is the complexity of events that figures in argument realization in the following way.

(22) Argument-per-subevent condition: There must be at least one argument XP in the syntax per subevent in the event structure.31

(Rappaport Hovav and Levin 2001: 779, (44))

As discussed by Kardos and Pethő (2019: 124), the condition in (22) does indeed allow us to predict that verbs of complex events like break are obligatorily transitive, whereas verbs

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31 Similar principles have been proposed by Grimshaw and Väkner (1993), Pustejovsky (1991, 1995), and van Hout (1996).
expressing simple events are either (i) obligatorily transitive, (ii) optionally transitive, or (iii) intransitive. However, the authors also point out some problems. They provide examples from English and Hungarian, which pose a challenge for the theory:

(23) a. The boy grew tall.
    b. The eggs boiled hard.

(24) a. A ház por-ig égett.
    the house dust-to burned
    “The house burned to the ground.”
    b. A modell csontsovány-ra fogyott.
    the model skinny.to.the.bone-on lost.weight
    “The model got skinny to the bone as a result of losing weight.”

(Kardos and Pethő 2019: 125, (22a), and p. 126, (22d))

An important property of the predicates in (23) and (24) is that they all express two subevents, that is, an activity and a result state, and yet they occur with a single argument, contra (22). These and other data also discussed in the work of Kardos and Pethő (2019) can lead us to conclude that, although it is highly plausible that argument structure is at least partially derived from event structure, the nature of this derivation needs further investigation for better explanatory adequacy. In recent years, part of this investigation has concerned the nature of lexical roots and, more specifically, their contribution to argument realization. In the next section, I will review some findings of this research in an effort to set the stage for a novel account of event lexicalization in Hungarian in Chapter 5 and also the discussion about lexical semantic constraints in Hungarian verbs in Chapter 6.

4.3 Event lexicalization across languages

In this section, I illustrate what kind of meanings a single surface verb can or cannot have and how this varies across languages. I begin by discussing a typological classification regarding the lexicalization of events, which is not linked to any theory of word meaning, and I also review more recent work on the plausibility of this classification. Finally, I address the debate on a universal constraint concerning how much meaning verbal roots can lexicalize across languages. Unlike the typological proposal discussed in the first half of this section, the latter topic on verbal roots is tied to specific frameworks where a predicate decomposition analysis of word meanings is assumed.

4.3.1 Talmy’s typology

One of the most significant typological discoveries of lexical semantic research concerns the different ways in which languages express various components of situations in the world. In the case of situations expressing an entity’s change of location, which have generated the most amount of interest in recent decades, some of these components are the motion itself, the path of motion and the manner of motion. An influential early proposal regarding the encoding of these components is put forward by Talmy (1985, 2000), who suggests a two-way classification of languages into verb-framed and satellite-framed based on how they encode the path of motion in directed motion events.32 In verb-framed languages such as Spanish and Romanian,

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32 There are other linguistically relevant components in motion events such as the moving entity, which Talmy calls the figure, and the reference object with respect to which the figure moves. The latter is also referred to as
it is verbs that encode the path of motion and the motion itself, whereas the manner of motion is expressed by a constituent—also referred to as a satellite—outside the verb. The examples in (25) and (26), where in each case the satellite is a subordinate clause headed by a participial verb, illustrate this encoding pattern.

(25) Spanish
La botella entró a la cueva (flotando).
the bottle moved into the cave (floating)
“The bottle floated into the cave.”

(Talmy 1985: 69, (15a))

(26) Romanian
Sticla ajuns în peșteră (plutind).
bottle.the aux.3Sg get.Prf in cave (floating)
“The bottle got into the cave (floating).”

(Farkas 2013: 187, (4))

By contrast, in satellite-framed languages like English and Hungarian, verbs encode both motion and the manner of motion, whereas the path of motion is expressed outside the verb. Consider the examples in (27)–(29).

(27) The bottle floated into the cave. English
(28) János a barlang‐ba úszott.
János the cave‐into swam
“János swam into the cave.”

(29) Péter ki‐sétált.
Péter Prt‐walked
“Péter walked out (from some place).”

In both the English and the Hungarian examples, the verbs express motion events in which the referent of the theme undergoes a change of location by floating, swimming, or walking, while the satellites express the path of motion. In English, the satellite to the verb is the prepositional phrase (PP), whereas in Hungarian it is the case-marked determiner phrase (DP) in (28) and the verbal particle *ki* in (29). 33

An important question that arises regarding Talmy’s typology is what kind of consequences the distinct encoding mechanisms have with respect to the grammar of different languages. It has been argued that one such consequence concerns an argument structural property of verbs: whereas in satellite-framed languages manner verbs can appear in resultative constructions (see (30) and (31)), such complex predicates are generally not available in verb-framed languages, illustrated in (32). 34

(30) John hammered the metal flat.

33 More recently, a third strategy has also been posited with respect to how languages express motion events: equipollently framed languages like Thai employ multiple verbs in a single clause to encode the manner and the path of motion events. For more on this strategy, see Slobin (2004) and Zlatev and Yangklang (2004).

34 For more on the absence and availability of resultative constructions of the English type across languages, see, for example, Snyder (2001).
As discussed by Levin and Rappaport Hovav (2019), a variety of other grammatical properties have been correlated with whether a language is associated with one encoding strategy or another. These include the availability of constructions like the double object construction and the encoding of various aspectual meanings. In this chapter, I will not provide a more specific characterization of the nature of these correlations, but I wish to point out an important idea that two-way or three-way typologies suggest: The encoding strategy used in one language should not be available in languages associated with another strategy. In other words, the strategy whereby a single verb encodes the path of motion in a clause is expected to be unavailable in satellite-framed languages and the strategy whereby the path is expressed in a satellite outside the verb should not be used in verb-framed languages. However, this generalization, and thus two-way (or three-way) typologies, does not stand up to empirical scrutiny. Data from numerous typologically diverse languages have been identified in the literature (for references, see Levin and Rappaport Hovav 2019), which pose a challenge for Talmy’s proposal. For example, Beavers et al. (2010) provide the example in (33) to show the encoding of the path of motion in a PP outside the verb in Spanish, which is a strategy primarily used in satellite-framed languages.

(33) Spanish
La botella flotó hasta la cueva.
the bottle floated until the cave
“The bottle floated to the cave.”
(adapted from Beavers et al. 2010: 347, (26))

It is clear from (33) that path-encoding hasta-PPs can in fact occur with manner-of-motion verbs. The co-occurrence of the goal-denoting PP and the manner verb in this example gives rise to a delimited event\(^{35}\) as in English and many other satellite-framed languages, as evidenced by the entailment test below.\(^{36}\)

(34) Spanish
La botella flotó hasta la cueva, pero no llegó (a la cueva).
the bottle floated until the cave, but not arrived at the cave
#“The bottle floated to the cave, but never arrived.”
(Beavers et al. 2010: 347, (27))

Furthermore, Beavers and his colleagues also cite the following examples from Iacobini and Masini (2006) to show that there are in fact verb-framed languages in which some manner-of-

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\(^{35}\) For more on hasta-markers, see Bassa-Vanrell (2017).

\(^{36}\) This is a simplification of the facts. Event delimitedness also depends on the reference properties of the theme DP, the referent of which undergoes a change of state or a change of location. For more on this, see Beavers (2012a) and Kardos (2012, 2016, 2019).
motion verbs can appear with path-encoding particles, which is again a strategy typically found in satellite-framed languages.

(35) Italian

Luigi è saltato fuori all'improvviso.
Luigi be.3Sg jump.Part.Pst out suddenly

“Luigi suddenly popped up.”

(Iacobini and Masini 2006: 160)

Finally, it is also problematic that in some satellite-framed languages it is possible for verbs to encode the path of motion, as in the case of the English verbs enter, exit, ascend, and descend. In strong satellite-framed languages (Acedo-Matellán 2016) like Hungarian, this is not possible. Endpoints encoded in particles or locative/resultative XPs do not incorporate into the verb (Hegedűs 2017). In Chapters 5 and 6, I will try to qualify this claim by arguing that it is endpoints/result states and the attainment of endpoints that cannot appear in the verb at the same time.

Overall, then, in light of these data and some other considerations, Beavers et al. (2010) conclude that, although there seems to be a tendency for languages to favor verb-framed, satellite-framed, or equipollently framed options, it is best to attribute the divergent encoding strategies in different languages to (i) their lexical, morphological, and syntactic resources, (ii) pragmatic factors, and (iii) a lexicalization constraint on how much meaning verbal roots can express. In the next section, I turn to a more detailed examination of (iii), which has sparked an interesting debate among scholars, both lexical semanticists and syntacticians. In Chapter 6 I also show how the morphosyntactic resources of Hungarian determine what encoding strategies this language uses in the expression of events.

4.3.2 Manner and result in verbal roots

I have so far reviewed theories seeking answers to (i) what kind of linguistically relevant meaning components make up words, (ii) how these components are to be represented, and (iii) how languages differ when it comes to the encoding of different facets of situations as construed by native speakers. An additional question related to (i)–(iii) is whether there is a constraint limiting the amount of information a word can lexicalize and, if so, what is the nature of this constraint. In some of their most recent works, Malka Rappaport Hovav and Beth Levin propose that verbal roots within an event structural theory may lexically encode either a manner component or a result component, but not both (Rappaport Hovav and Levin 2010). Manner/result complementarity receives support from the different argument structural behavior with which manner verbs and result verbs are associated. Manner verbs like dance, sweep, wipe, play, and hit appear in a variety of argument realization patterns, whereas result verbs like break, cool, arrive, and enter exhibit a stricter grammatical behavior.

(36) a. All last night, Kim scrubbed.
   b. Cinderella scrubbed the table clean/shiny/bare.

   (Beavers and Koontz-Garboden 2012: 339, (14a), and p. 340, (22a))

(37) a. *All last night, Kim broke.
   b. *Kim broke the stick purple.

   (Beavers and Koontz-Garboden 2012: 339, (16b), and p. 341, (24d))

As shown in (36a), the two-place manner verb scrub allows the omission of the patient and it can also appear with a variety of resultative XPs, as in (36b). By contrast, the result verb break
requires the syntactic instantiation of the object (37a) and it is not found with resultative XPs unrelated to the result state encoded in the verb (37b). For more on these tests, see Chapter 6.

Rappaport Hovav and Levin derive manner/result complementarity from a more general constraint on event structures, formulated as follows:

(38) **The lexicalization constraint:** A root can only be associated with one primitive predicate in an event schema, as either an argument or a modifier.

(Rappaport Hovav and Levin 2010: 25, (12))

As noted by Rappaport Hovav and Levin (2010: 26), in morphologically poor languages like English, manner/result complementarity characterizes words which contain a single verb stem, whereas in morphologically rich languages like Lakota and Washo, it is different pieces of words, that is, verb stems and affixes, that can encode either manner or result, but not both. Here, I illustrate this contrast with examples from English and Hungarian.

(39) John entered the stadium.
(40) János *be-*ment a stadion-*ba.
        János Prt-*went* the stadium-*into*
        “János entered the stadium.”

Whereas in the English example, it is the verb stem *enter* that encodes the goal point that is associated with the event description, in the Hungarian example, the verb stem *ment “went”* lexicalizes the manner of motion and the verbal particle *be “(in)to”* encodes the goal point along with the case-marked DP.

Rappaport Hovav and Levin justify their complementarity idea further by identifying a semantic property of events which is associated with result verbs, but not with manner verbs. They argue that result verbs express simple, scalar changes, whereas manner verbs describe complex, non-scalar changes. A scalar change is characterized as follows.

(41) A scalar change is one which involves an ordered set of changes in a particular direction of the values of a single attribute and so can be characterized as movement in a particular direction along the scale.

(Rappaport Hovav 2008: 17)

Various grammatical properties of scalar/result verbs are attributed to the properties of the scales that they lexically encode. For example, verbal predicates like *enter* and *exit*, which encode scales having two degree values, are associated with a telic reading, whereas predicates like *cool* and *warm*, which encode scales constituting multiple degree values, are atelic by default. With these verbs, a telic reading can arise due to contextual cues or some sentential material.

(42) a. John cooled the soup for/*in* 10 minutes.
    b. John cooled the soup to room temperature in/*for* 10 minutes.

As pointed out by Hay et al. (1999), Kennedy and Levin (2008), and Rappaport Hovav and Levin (2010), among others, degree achievements like *cool* and *warm* are characterized by variable telicity. For example, the predicate *cool the soup* in (42a) is interpreted atelically without any contextual support and is thus compatible with the temporal adverbial *for 10 minutes*, but context may also allow the hearer to assign a telic reading to this example such that the soup reached some contextually specified temperature in the course of the cooling
event. By contrast, (42b) illustrates strict telicity due to the lexical semantics of the verb and that of the adpositional expression to room temperature. Yet another class of verbs encoding multipoint scales are again associated with strict telicity given that these scales are associated with maximal endpoints (Wechsler 2005: 263). Consider (43).

(43) a. John straightened the rope in 10 minutes/*for 10 minutes.  
    b. Helen emptied the fridge in 10 minutes/*for 10 minutes.

In addition to figuring into the calculation of various aspectual properties,37 scalar properties have also been used to explain the difference between manner verbs and result verbs regarding their compatibility with various result XPs. For more on this, see Wechsler (2005).

The manner/result complementarity hypothesis by Rappaport Hovav and Levin has been called into question by multiple scholars (see, for example, Goldberg 2010; Husband 2011; Beavers and Koontz-Garboden 2012, 2020; Acedo-Matellán and Mateu 2014). Goldberg (2010), for instance, argues that this constraint is too strong as there seem to be verbs that simultaneously encode manner and result. She illustrates this point with various verb classes including verbs of creation like scribble and verbs of cooking like sauté, roast, and fry. As for the former, Goldberg argues that in addition to manner, verbs like scribble also encode some kind of result by virtue of the fact that a new entity comes about in the course of the events described by these verbs. Verbs of cooking, on the other hand, describe the manner of cooking and a scalar change. She uses the gradability test for scalarity to support her claim (Hay et al. 1999). It is possible to fry food more or less, which shows that the verb fry must be scalar.38 Therefore, as an alternative to the hypothesis of Rappaport Hovav and Levin, Goldberg proposes another constraint on word meaning: She claims that verbs “may encode both manner and result as long as there exists a semantic frame that unites both meaning components” (Goldberg 2010: 57). For more on the notion of “semantic frame,” see Fillmore (1982). Beavers and Koontz-Garboden (2012, 2020) also offer an insightful critique of the manner/result complementarity hypothesis. They argue that manner/result complementarity is false as a truth-conditional claim about verb meaning, but it does receive empirical support as a claim about event structure. They distinguish between three classes of verbs regarding how much information verbal roots may lexically entail. Verbs like run and walk are associated with manner roots, whereas verbs like break and destroy lexicalize result roots. In addition, there is a third class, including the subclasses of verbs of cooking like sauté and braise, verbs of manner of killing like crucify, drown, and hang and ditransitive ballistic motion verbs like throw and toss, which lexicalize roots encoding manner and result simultaneously. They apply several manner and result diagnostics to provide evidence for these three classes. Here, I only discuss some of these diagnostics to show that verbs encoding both manner and result can be found in English (and possibly other languages). First, when appearing in a result-entailing context, verbs like drown give rise to a contradiction, as shown in (44a). Second, such verbs do not allow object omission, which is what (44b) illustrates. Thus, the verb drown patterns with canonical result verbs.

(44) a. #Jane just drowned Joe, but nothing is different about him.  
    b. *All last night, Shane drowned.

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37 Durativity, which is another lexical aspectual property of verbal predicates, has also been linked to scalar complexity. For more on this, see Beavers (2012a: 47–52).

38 Goldberg (2010: 50), however, also points out that gradability is not necessary for scalarity. Verbs encoding two-point scales are not gradable.
By contrast, verbs of manner of killing also exhibit a manner behavior. This is illustrated below.

(45) #The governor drowned/hanged the prisoner, but didn’t move a muscle — rather, during the execution she just sat there, tacitly refusing to order a halt!

(46) It took me five minutes to drown/hang/crucify Jim … (“during/after five minutes”)

a. AFTER: because I lacked the courage.
b. DURING: because this is how long it takes to kill someone by holding them under water/cutting off their air/nailing them down to a cross, hoisting them up, and waiting.

That it is not possible in (45) to both assert that the subject drowned/hanged the patient and deny that the drowning/hanging activity was performed is a hallmark of manner verb behavior. Furthermore, (46) serves as evidence for the availability of a durative reading with verbs like drown, hang, and crucify, which again shows that these verbs encode a manner component. Durativity can only be due to this component, since the result state of death, also encoded in these verbs, is a non-gradable property.

In light of these and some other truth-conditional diagnostics, Beavers and Koontz-Garboden conclude that the complementarity idea cannot be upheld contra the proposal of Rappaport Hovav and Levin. Verbal roots can in fact package manner and result at the same time. However, they also discuss manner/result complementarity as a claim about event structures. They show that it is indeed the case that there must be a single root object in an event structure associated with verbs showing a single overt morphological root. This root object can serve as an adjunct modifying vACT or vCAUSE or as a complement to vBECOME (see the syntactified event structures in Chapter 4 of Beavers and Koontz-Garboden 2020). They rely on scopal modification facts to support this claim.

(47) John drowned the zombie again.

MEANS “John caused the zombie to be dead by drowning again.”
CANNOT MEAN “John caused the zombie to become dead again by drowning, but the last time the zombie was killed it was with a chainsaw.”

We have already seen in Section 4.2.2 that sentences containing canonical result verbs like close are ambiguous in the presence of the adverbial again. This ambiguity arises since again can either scope over the entire event, in which case a repetitive reading becomes available, or only the result state giving rise to a restitutive reading. That drown the zombie again in (47) can only receive a repetitive meaning shows that the root in the verb must encode both the result state of death and the manner of drowning. It is not the case that there are two root objects in the surface verb drown, one responsible for result and another one for manner; that is, manner/result complementarity viewed as a constraint as to how many root components event structures may contain proves to be adequate. For more on the manner/result complementarity hypothesis, see Chapter 6.

4.4 The causative-inchoative alternation

In this section, I discuss in some more detail how verb meaning is structured. I aim to provide a case study of some of the challenges that arise when it comes to the linking at the syntax–semantics interface in the context of the causative–inchoative alternation. There are several
questions that need answers regarding this alternation: For example, we need to understand what kind of properties allow verbs to participate in argument alternations. We would also like to explore how the verbs in a given alternation are related to each other. In particular, a crucial question is whether there is a derivational relationship between the alternants and, if so, what is the nature of this derivation? Third, we also have to provide an explanation for the differences between the alternants regarding the morphosyntactic realization of the arguments. Another question concerns the semantic relationship that holds between members of the sentence pairs containing alternating verbs. In what follows I will focus on the first two questions. First, I illustrate the causative-inchoative alternation with the following pairs of sentences:

(48)  a. John broke the vase.
   b. The vase broke.
(49)  a. János be‐törte az ablak‐ot.
      János 
Prt‐broke the window‐Acc
      “János broke the window.”
   b. Az ablak be‐tört.
      The window Prt‐broke
      “The window broke.”

All the examples above describe breaking events but it is clear that the (a) and (b) sentences in each pair are characterized by different truth conditions: In each case the sentence in (a) supplies specific information as to the instigator of the event expressed by the verbal predicate, whereas in (b) this event participant is left unspecified. It is also important to note that there is an entailment relationship between the two sentences in (48) and (49) such that the (a) sentence entails the (b) sentence in each pair.

As for the type of verbs that can participate in this alternation, several proposals have been put forward as to what kind of semantic properties distinguish alternating verbs from non alternating verbs (Smith 1978; Levin and Rappaport Hovav 1995). For instance, Levin and Rappaport Hovav (1995: 91) suggest that non‐alternating verbs such as play, speak, glitter, roar, and bubble express internally caused eventualities, which means that in the case of these verbs “some property inherent to the argument of the verb is ‘responsible’ for bringing about the eventuality.” Conversely, verbs like break, close, cool, dry, freeze, bounce, and roll “by their very nature imply the existence of an external cause with immediate control over bringing about the eventuality described by the verb: an agent, an instrument, a natural force, or a circumstance” (Levin and Rappaport Hovav 1995: 92). Levin and Rappaport Hovav further argue that, unlike internally caused verbs, externally caused verbs are associated with a complex event structure. That is, their lexical semantics reflects the fact that they are inherently two-argument verbs: the external cause occupies the argument position in the causing event and the argument whose referent undergoes some change occupies the argument position in the caused state. This is illustrated in (50).

(50)  [[x ACT] CAUSE [y BECOME STATE]]
      (adapted from Levin and Rappaport Hovav 1995: 94, (27a))

An important consequence of this analysis is that externally caused verbs must have a transitive variant, though not all of them appear as intransitive verbs. Consider (51)–(52).

(51)  a. The baker cut the bread.
   b. *The bread cut.
Despite its initial appeal, however, the internal versus external causation idea has also generated skepticism among scholars as there are no independently verifiable criteria according to which externally caused and internally caused verbs can be reliably isolated.39

In response to the second question mentioned at the outset of this section, various derivational and non-derivational analyses have been proposed in prior literature and, within the derivational approaches, both transitivization and detransitivization analyses have been pursued. According to theories advocating a transitivization analysis, the basic idea is that the transitive causative variant comes about as a result of a causative operation, whereby a CAUSE operator is added to the event structure of the intransitive variant (Dowty 1979; Pesetsky 1995). By contrast, proponents of the detransitivization view have argued that the transitive variant is basic and the intransitive variant is derived from it via reflexivization (Chierchia 2004; Koontz-Garboden 2009; Beavers and Koontz-Garboden 2013a, b), lexical binding (Levin and Rappaport Hovav 1995) or deletion (Reinhart 2003; Reinhart and Siloni 2005). On non-derivational analyses, the transitive causative and intransitive variants are not derived from each other but from a common morphological root (Piñón 2001). On yet another non-derivational approach, alternating verbs are associated with the internal argument and transitive structures come about with the introduction of an external argument in the syntax (Alexiadou 2010; Alexiadou et al. 2015).

In this review, I briefly discuss the reflexivization analysis, as it has sparked an interesting debate in the literature in recent years. As mentioned above, an important assumption that advocates of the reflexivization analysis share is that the causative–inchoative alternation comes about as a result of a detransitivization process whereby the inchoative variant is derived from the causative variant (Chierchia 2004; Koontz-Garboden 2007, 2009; Beavers and Koontz-Garboden 2013a, b). This claim is taken to be supported in languages like Spanish by the fact that it is the inchoative/anticausative variant that is the morphologically marked form and the marking element *se* (as in romperse “intransitive break,” which alternates with romper “transitive break”) also happens to be a reflexive marker in this language. On this view, derivation occurs through reflexivization, which, according to Koontz-Garboden (2007, 2009), is an advantageous assumption, as it allows us to adhere to the monotonicity hypothesis in (53), originally proposed in Kiparsky (1982). For more on this hypothesis, see Chapter 6.

(53) **Monotonicity hypothesis**: Word formation operations do not remove operators from lexical semantic representations.

(Koontz-Garboden 2007: 25, (12))

An important consequence of the detransitivization operation via reflexivization is that the inchoative variant retains the CAUSE operator available in the causative variant and the external argument that comes with CAUSE becomes identical with the patient. Researchers have used multiple diagnostics to identify a CAUSE component in the intransitive variant of the alternation. Here, I only discuss the *by itself*-test, which was proposed by Chierchia (2004). It has been shown that modifiers like Italian *da sé* “by itself” and Spanish *por sí solo* “by itself” are anaphors that need to be locally bound by a causer subject; they can appear with verbs that

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lexically encode such a subject. Thus, for example, sentences containing *da sé* “by itself” in Italian or *por si solo* “by itself” in Spanish and a reflexive verb are grammatical, whereas sentences with these modifiers and passive verbs are ungrammatical. That inchoative verbs like Spanish *romperse* “intransitive break” can also appear with the modifier *por si solo* “by itself” has been taken as evidence by proponents of the reflexivization analysis for this verb’s lexicalizing CAUSE.

This view has also been challenged by Horvath and Siloni (2011: 2177–2179), who show that in Hebrew there are two possible counterparts of English *by itself*, namely, *be-acmo* “in itself” and *me-acmo* “from itself.” The former can appear with agentive and reflexive verbs but rejects inchoative verbs regardless of the morphological shape of the verb, whereas the latter is licensed with inchoatives. That is, agentive verbs and reflexive verbs pattern differently from inchoatives, which is unexpected on Koontz-Garboden’s analysis.40 Beavers and Koontz-Garboden (2013a: 204–205) respond to this critique by showing that the Hebrew counterparts of *by itself* contribute different animacy constraints to the sentences they appear in, and this is why they differ in their distribution. Other tests involving, for example, negation and adjunction facts have also been proposed and challenged in the debate on the reflexivization analysis of the causative–inchoative alternation. For more on these tests, see Horvath and Siloni (2011, 2013) and Beavers and Koontz-Garboden (2013a, b).

### 4.5 Conclusion

I hope to have shown that the derivation of important grammatical properties of verbs from their lexical semantics has proved to be a popular and, in many ways, successful research enterprise in the past few decades both in terms of its empirical coverage and its impact on linguistic theorizing. However, there are still several questions to be answered. For instance, researchers have most recently focused on the question whether verbal roots contain grammatically relevant facets of meaning (in addition to their ontological category), or they are irrelevant for the grammar, as has generally been assumed. Levin (2017), for example, shows that the class of manner verbs like *hit* and *wipe* is heterogeneous based on differences in their argument expression and she also argues that this heterogeneity follows from the divergent properties of their roots. Whereas “hitting roots—and events—involves impact at a point—or what is conceptualized as a point,” “wiping roots involve contact over a necessarily extended area” (Levin 2017: 586). Also, Beavers and Koontz-Garboden (2020) provide multiple pieces of evidence for some roots encoding templatic information such as causation. This is a finding that seriously challenges the assumption that a given component of meaning cannot appear both as information introduced by a functional head (in a syntactically instantiated event structure) and as information encoded in the verbal root (cf. Embick’s (2009) Bifurcation Thesis for Roots). Future research will have to provide evidence for such claims both with respect to English and other languages.

In line with this research agenda, in the remainder of Part 2, I turn my attention to lexicalization constraints in Hungarian and show how the morphosyntactic resources of this language, discussed in detail in Chapters 2 and 3, interact with how much meaning a given verb may encode. First, in Chapter 5, I show why I believe there is a need for a more nuanced distinction between satellite-framed languages in light of data from Hungarian, and then in Chapter 6, I show how verb meanings in Hungarian are constrained in terms what components they may encode.

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40 As shown by Rákosi (2012: 193) and Pethö and Kardos (2014: 514–516), a similar problem arises in Hungarian.
5 Rethinking Talmy’s typology

5.1 Introduction

As argued extensively in the literature on event lexicalization (see, for example, Talmy 1985, 1991, 2000; Beavers, Levin, and Tham 2010; Acedo-Matellán 2016; Folli and Harley 2020; Hopperdietzel 2022) and also discussed in the previous chapter, languages use two main strategies to express change-of-state and change-of-location events: One strategy is that the manner in which an event is carried out is expressed by the primary verbal predicate, whereas the result state that is attained at the termination of the event expressed by the primary verb is encoded in a secondary predicate in the sentence. The second strategy is different from the first one in that the result component is expressed in the primary verbal predicate and the manner is encoded outside this predicate in an adjunct. Many languages use both strategies, but there is generally a tendency for the use of one of the two strategies in a given language (Beavers, Levin, and Tham 2010; Hopperdietzel 2022). For example, English primarily uses the first strategy, as shown in (1a) and (2a), but we can also find examples illustrating the second strategy, as in (1b) and (2b).

(1)  a. John hammered the metal flat.
     b. John flattened the metal by hammering it.

(2)  a. Bill wiped the table clean.
     b. Bill cleaned the table by wiping it.

In (1a) and (2a), the primary verbal predicates hammer and wipe are manner-encoding, whereas the secondary adjectival predicates flat and clean express the result state that the referent of the theme attains at the end of the hammering and wiping events, respectively. By contrast, in the (b) examples, the primary verbs flatten and clean encode the result states, derivable from the underlying adjectives flat and clean, that the referents of the themes the metal and the table acquire at the end of the flattening and cleaning events in the respective examples. The by-phrases contribute the manner in which the flattening and the cleaning events are carried out.

In languages such as Romance, the first strategy has been argued to be generally unavailable (Talmy 2000; Acedo-Matellán 2016). For example, in Spanish, structures illustrated by the (a) examples above are deemed ungrammatical. (See also example (32) from Romanian in Chapter 4.) Consider (3).

(3) Spanish
    *María martilleó el metal plano.
    María hammered the metal flat
    Intended: ‘María hammered the metal flat.’
    (adapted from Mateu 2012: 258)

The example above shows that Spanish does not tolerate that the manner component be encoded in the primary verb and that the result component appear only in a secondary predicate.

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41 A more elaborate version of this chapter will appear in Den Dikken and Kishimoto (to appear) as Kardos and Szávó (to appear).
in the description of change-of-state events. Instead, the result state is expressed by the verb and the manner is described by an adjunct, as in (4).

(4) Spanish
María aplanó el metal martilleándolo.
María flattened the metal hammering it
‘María flattened the metal by hammering it.’
(adapted from Mateu 2012: 258)

The primary verbal predicate *aplanar* ‘to flatten’ encodes the result state that the metal obtains at the end of the hammering event. The meaning that the event is of the hammering type is contributed by the adjunct *martilleándolo* ‘hammering it’.

As pointed out by Mateu (2002: 165–166), Romance languages such as Catalan also allow simple resultatives, which contrast with complex resultatives such as *hammer the metal flat* in English in that in the former the primary verb is associated with a causative verb and Path incorporation and the state-denoting adjectival complement remains stranded in the sentence. This is illustrated in (5) below.

(5) Catalan
La Paquita va deixar la porta oberta.
the Paquita cause+Path the door open
‘Paquita left the door open.’
(adapted from Mateu 2002: 166)

Mateu (2002) argues that the AP *oberta* ‘open’ in the example above represents only an abstract Place, unlike, for example, English *awake* in *bark the chickens awake*, which corresponds to the entire abstract Path, ultimately giving rise to a telic structure. In Catalan, by contrast, “the telic Path relation is conflated into the verb” (Mateu 2002: 165).

Event lexicalization strategies in Finno-Ugric languages such as Finnish and Hungarian have also been discussed in the literature to some extent: these languages have been classified as satellite-framed for their apparent similarities with English-type languages. Just like English, Finnish and Hungarian like to express result states in satellite expressions morphologically independent from the verb (see Hegedüs 2017, 2019 for more on Hungarian). Acedo-Matellán (2016) describes these languages as strong satellite-framed and contrasts them with weak satellite-framed languages such as Latin and Slavic languages, where results must be expressed in elements that are syntactically independent but are also prefixed to the verb. Strong satellite-framed English and Hungarian allow complex resultative structures, whereas weak satellite-framed Latin does not. However, the latter allows simple resultative structures similarly to Catalan (Mateu 2002: 212).

In this chapter, some arguments are provided for the need for a more nuanced analysis of satellite-framed constructions by examining possible and impossible change-of-state and change-of-location structures in Hungarian. While assuming a layered structure for the Hungarian VP following Surányi (2014) and Kardos and Farkas (2022) inspired by MacDonald (2008b) and Travis (2010), as discussed in Chapter 3, I show that Hungarian exhibits significant differences with English regarding event lexicalization and propose a syntactic constraint that ensures that Hungarian result components be expressed outside the VP. It will also be argued that result-encoding elements such as verbal particles and resultative predicates must take scope over the domain that they c-command in visible syntax. In this way, Hungarian verbal particles and resultative predicates, which have been argued to be event-maximizing elements
(Kardos 2012, 2016), are shown to be similar to quantifiers and adverbs on the left periphery of the sentence in that these elements are all arranged on the syntactic surface according to scopal considerations (É. Kiss 1984, 2009). By contrast, English-type result-denoting elements are simply responsible for the expression of result states without quantifying over events and also without directly determining quantized reference and therefore telicity.

This chapter is structured as follows: Section 5.2 provides a brief overview of some recent analyses of verb-framed and satellite-framed structures across languages. Then, in Section 5.3 I discuss some well-known and lesser-known data illustrating possible and impossible event lexicalization strategies in Hungarian before accounting for these data in Sections 5.4 and 5.5. Section 5.6 concludes.

5.2 Recent analyses of verb-framed and satellite-framed structures

In this section I address three recent analyses regarding how different languages lexicalize various components of change-of-state and change-of-location events in an effort to set the stage for our discussion of event lexicalization strategies in Hungarian in the sections that follow. First, a brief summary is provided of the main tenets of Acedo-Matellán’s (2016) morphological and Folli and Harley’s (2020) syntactic analysis as to how the meaning components of path/result and manner are encoded in non-serializing verb-framed and satellite-framed languages. Then, Hopperdietzel’s (2022) analysis is presented of the split between verb-framed and satellite-framed structures in both non-serializing and serializing languages.

5.2.1 Acedo-Matellán’s (2016) morphological analysis

Acedo-Matellán (2016: 55) proposes that “although all syntactic representations are available universally, particular languages may not have the means to interpret some of these representations at PF, which gives rise to cross-linguistic variation”. While taking a syntactic approach to argument structure and drawing on insights from Hale and Keyser (1993), Mateu (2002), Borer (2005) and the framework of Distributed Morphology, this author argues that in verb-framed languages such as Spanish and Italian the Path head responsible for a transition interpretation, by virtue of being exponent-defective, only has Vocabulary Items that ensure strict linear adjacency between Path and v. This arises as a result of complex head formation by Raising of Path to v, as shown in (6).

(6)  
```
     vP
    /   
   /    
  v  PathP
     /    
 Path   v  PlaceP
```  

(Acedo-Matellán 2016: 65)
Latin and Slavic languages are argued to be similar to Spanish in that the Path head is exponent-defective, but there is no requirement ensuring strict adjacency of Path and \( v \). As a result, unlike Spanish and Italian, Latin and Slavic languages allow directed motion constructions provided the verb has a prefix (see also Section 5.4). By contrast, in English there is no requirement for Path and \( v \) to be packaged in the same complex head. Here only the root adjoins \( v \), which is interpreted as a manner Co-Event. According to an alternative analysis by Folli and Harley (2020), the split between verb-framed and satellite-framed structures arises due to a purely syntactic parameter. This is discussed in the next section.

5.2.2 Folli and Harley’s (2020) syntactic analysis

The central claim that Folli and Harley (2020: 429) argue for is that verb-framed languages such as Italian have a Res-to-\( v \) head movement requirement, “requiring the result of a change-of-state to be expressed in the verb, while English permits Res to remain \textit{in situ}”, as a result of which Res appears as a satellite expression independent from the verb. They propose the following representations for the satellite-framed pattern and the verb-framed pattern.

\[
(7) \quad \begin{align*}
\text{a.} & \quad \text{The boat floated into the cave.} \\
\text{b.} & \quad \text{to Spec, TP} \quad \ldots vP \\
& \quad v+\sqrt{\text{float}} \quad \text{ResP} \\
& \quad \text{DP} \quad \text{the boat} \\
& \quad \text{Res} \quad \text{PP} \\
& \quad \text{to} \quad \\
& \quad \text{in} \quad \text{the cave} \\
\end{align*}
\]

(Folli and Harley 2020: 430)
(8) Italian
   a. *La barca entrò nella grotta.*
      the boat entered in the cave
      ‘The boat entered the cave.’
   b. to Spec, TP
      \[\ldots vP\]
      \[\ldots vP\]
      \[v+Res\]
      \[\text{entrare} ‘enter’\]
      \[\text{ResP}\]
      \[\text{DP}\]
      \[\text{la barca ‘the boat’}\]
      \[\text{tRes}\]
      \[\text{PP}\]
      \[\text{nel-’in’ ‘in’}\]
      \[\text{la grotta ‘the cave’}\]

   (Folli and Harley 2020: 430)

On this view, that English v is not required to combine with Res via head movement gives rise to a sizeable class of manner verbs such as *float* associated with just v and an adverbial root \(\hat{v}\), whereas in Italian obligatory Res-to-v movement results in v+Res complex heads.\(^{42}\) An important consequence of this parametric variation in the syntax is that English allows Res to be expressed low in the structure in a satellite expression such as *into the cave*, whereas in Italian this is not possible.

Folli and Harley (2020) also adopt Embick’s (2010) root categorization restriction, according to which “uncategorized roots are ill-formed” and a v head may only categorize via m(orphological)-merger an (internally)-Merged Res element or an e(xternally)-Merged manner root (Folli and Harley 2020: 456). This way, the authors also derive manner-result complementarity as a syntactic phenomenon (for more on the manner/result complementarity hypothesis, see Section 4.3.2 and Chapter 6). Embick’s categorization restriction also features in Hopperdietzel’s (2022) analysis of satellite-framed and verb-framed structures in both non-serializing and serializing languages, which is the topic of the next section.

5.2.3 Hopperdietzel’s (2022) account of non-serializing and serializing structures

Building on previous work by Mateu and Acedo-Matellán (2012) and Folli and Harley (2020), among others, Hopperdietzel (2022) also argues that manner and result meanings are tied to specific syntactic positions defined relative to a verbalizer v: manner interpretations are associated with manner roots analyzed as modifiers of v, whereas result interpretations follow from result roots represented as complements of v. In complex resultative structures, found in English-type languages, the result appears as a pre-categorized constituent (see, for example,

\(^{42}\) According to Folli and Harley (2020: 430), who follow Matushansky (2006), “the adverbial root \(\hat{v}\) enters the structure via external Merge (e-Merge) to a projection v, and then m-merges with v to produce the same head adjunction structure as head movement”.

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flat in *hammer the metal flat*), whereas manner modification becomes possible given that there is no Res-to-v movement (Folli and Harley 2020) and that an eventive root such as √hammer in *hammer the metal flat* “gets categorized by lowering to v via m-merger” (Hopperdietzel 2022: 9). By contrast, in verb-framed structures, found in English-type languages and Romance, a pre-categorized constituent is merged in a modifier position relative to v, whereas the result component merged as a complement of v “incorporates into v to satisfy the categorization requirement” (Hopperdietzel 2022: 12) discussed above in Section 5.2.2. Since the latter process is obligatory in verb-framed languages, as also proposed by Folli and Harley (2020), complex resultative structures are not possible.

Serializing languages such as Mandarin and Samoan are also argued to illustrate the same split between verb-framed and satellite-framed languages, contra the previous claim that they form a different class featuring equipollently-framed resultatives (see Slobin 2004 and Zlatev and Yansklang 2004, as well as footnote 31). Providing evidence from the transitivity of the result predicate and repetitive modification, Hopperdietzel argues that Mandarin resultative serial verb constructions illustrated in (9) are to be analyzed as instances of resultative secondary predication observable in English-type languages, where the result component is a complement of a causative v₂ that forms an anticausative verb with v₂, whereas an additional causative v₁ is modified by a manner root m-merged with v₁.

(9) Mandarin

a. Sanmao peng₃-li₃-le jingzi.
   Sanmao bang-crack-Pfv mirror
   ‘Sanmao banged the mirror, cracking it.’
   (Tham 2012: 602)

b. VoiceP
   
   Sanmao Voice’
   
   Voice v₁P
   
   v₁’
   
   √peng v₁’
   
   v₁ v₂P
   
   v₂ ResP
   
   √lie+Res the mirror

(adapted from Hopperdietzel 2022: 22)

Hopperdietzel (2022: 22) further argues that Mandarin resultatives like that above also differ from resultatives in non-serializing languages in that the former is associated with a tri-eventive structure instead of a bi-eventive structure characterizing English resultatives such as *hammer the metal flat*. This follows from the verbal secondary predicate’s (i.e. *lie* in example (9))
denoting a change-of-state involving a causative relation between a process event and a state instead of just a state.

In Samoan, by contrast, faʻa-causatives are analyzed as verb-framed constructions, where a causative result verb is the primary predicate in the clause and the manner component is expressed in an initial manner verb, as in (10).

(10) Samoan

a. Sā solo fāʻa-mamā e Malia le kaulu.
   PST wipe Caus-clean Erg Mary Art table.Abs
   ‘Mary cleaned the table by wiping it.’
   (Hopperdietzel 2022: 23)

b. VoiceP
   Mary Voice’
   the tablei Voice’
   Voice v2P
   v1P
   √solo+v1 <the tablei>
   v2 v3P
   fāʻa- √mamā+v3 <the tablei>
   (Hopperdietzel 2022: 26)

For faʻa-causatives, Hopperdietzel proposes three vPs. In the example above, for example, the result meaning is associated with the result root √mamā, which forms a complex head with the lowest v3. This complex head then moves to v2 to join the obligatory causative marker fāʻa, whereas the manner component is expressed by the phrasal manner adjunct √v1P.43

A crucial conclusion drawn by the author is that “the underlying syntactic configuration of meaning components within the verbal domain is most likely constant across languages” (Hopperdietzel 2022: 35). However, cross-linguistic differences arise due to the fact that manner and result are realized by elements representing different morphosyntactic categories (PPs, APs, VPs, etc.).

43 Mateu (2012: 268–269) also likens Mandarin V-V compounds such as Lisi ba shoujuan ku-shi-le ‘Lisi cried the handkerchief wet’ to English resultatives like The boy danced his feet sore and analyzes both structures as instances of manner conflation, whereas verb-framed structures represented by Japanese V-V compounds such as John-wa zaisan-o nomi-tabusita ‘John drank his fortune away’ are treated as instances of incorporation. In the case of the Mandarin example, the null main causative verb is argued to be conflated with a manner root, whereas in the Japanese example the result is claimed to be incorporated into the null main verb. For more on this, see Section 10.3 in Mateu (2012).
In the following sections the focus will be on event lexicalization strategies in Hungarian. It will be shown that a more nuanced analysis of satellite-framed structures is required in light of the data in the chapter. Results associated with resultative predicates will be assumed to be merged as complements in the event domain in line with much prior literature, and it will be argued that an additional constraint is required in Hungarian such that result predicates exert their event aspectual functions in a VP-external position due to scope considerations. This constraint will also be shown to be obeyed by verbal particles associated with quantification over events.

5.3 Hungarian classified as a strong satellite-framed language

As mentioned above, Hungarian has been characterized as a strong satellite-framed language by Acedo-Matellán (2016) (see also Hegedűs 2019), similarly to Finnish and Germanic languages, as result-denoting elements can be morphologically independent from the verb. This is shown in (11).

(11) Hungarian

a. Evelin meg-vert egy szomszédot.
   Evelin Prt-beat a neighbor.Acc
   ‘Evelin beat up a neighbor.’

b. Evelin nem vert meg egy szomszédot.
   Evelin no beat Prt a neighbor.Acc
   ‘Evelin did not beat up a neighbor.’

c. Evelin meg akart verni egy szomszédot.
   Evelin Prt wanted beat.Inf a neighbor.Acc
   ‘Evelin wanted to beat up a neighbor.’

d. Evelin véresre vert egy szomszédot.
   Evelin bloody.Subl beat a neighbor.Acc
   ‘Evelin beat a neighbor bloody.’

The verbal particle meg is in an immediately preverbal position in (11a), follows the verb in (11b) with negation in the sentence, and is again morphologically separated from the infinitive verb verni ‘to beat’ by the verb akart ‘wanted’ in (11c). In (11d) the result state of the referent of the theme egy szomszédot ‘a neighbor’ is expressed in the resultative constituent véresre ‘lit. onto bloody’ preceding the primary verbal predicate vert ‘beat’.

An important property of verbal particles like ki ‘out’ and resultative predicates like laposra ‘lit. onto flat’ that is relevant in the context of this chapter is that they are associated with quantificational information, similarly to some perfective prefixes in Slavic languages (Filip 1996; Ramchand 2004; Svenonius 2004; Di Sciullo and Slabakova 2005). As for the latter, it has been proposed that a subset of perfective prefixes is responsible for A-quantification (as opposed to D-quantification) (Partee, Bach and Kratzer 1987) by imposing specific semantic constraints on the VP both in Slavic languages with determinerless DPs (e.g. Russian, Czech, and Polish) and also in those with “overtly unspecified cardinality DPs” (e.g. Bulgarian) (Di Sciullo and Slabakova 2005: 61). As discussed in some detail in Chapter 3, telicizing verbal particles and resultative predicates in Hungarian have been argued to encode an event-maximizing operator that gives rise to maximal events with quantized reference associated with themes whose quantity is known (Kardos 2012, 2016).
Halm (2015) also argues for the quantificational force of verbal particles in Hungarian. In particular, he proposes that verbal particles can carry a generic operator which allows them to license free choice items (FCIs) like bármi ‘anything’ in examples such as (12) and (13).

(12) Hungarian
a. ?A sertések esznek bármit.
   the pigs eat anything.Acc
   Intended: ‘Pigs eat anything.’ (generic)
b. A sertések meg-esznek bármit.
   the pigs Prt-eat anything.Acc
   ‘Pigs eat anything.’ (generic)

(13) Hungarian
a. ??A vendégek nyírnak bármit.
   the guests shear/mow anything.Acc
   Intended: ‘Guests mow anything.’ (generic)
b. A vendégek meg-nyírnak bármit.
   the guests PRT-shear/mow anything.Acc
   ‘Guests mow anything.’ (generic)

As shown above, the (a) examples, which are intended to be generic statements about pigs and guests, are degraded with the particleless verbs esznek ‘eat’ and nyírnak ‘shear/mow’. According to Halm, the difference in acceptability between (12a) and (13a) lies in the fact that “pigs are known for their indiscriminate feeding habits”, whereas “guests as a kind have no known propensity for indiscriminate mowing/shearing of things” (Halm 2015: 178). In the presence of the particle meg, however, these examples become fully acceptable with the FCI bármit ‘anything’ in them, as is clear from (12b) and (13b).

Cross-linguistically, similarly to Hungarian resultative expressions, Finnish expressions like litteäksi ‘lit. onto flat’ are also responsible for encoding the result component outside the primary verb in the sentence. This is shown in (14), taken from Levinson (2010).

(14) Finnish
Mari hakkasi metallin litteäksi.
Mari hammered metal.Acc flat.Transl
‘Mari hammered the metal flat.’
(Levinson 2010: 144)

A rarely noted but important property with respect to which Hungarian is different from Finnish and also from English is that the resultative predicate may not exert its aspectual functions in a postverbal position in neutral sentences, but must precede the verb, as in (15)–(17). For more examples, see Section 2.4.

(15) Hungarian
a. Evelin véresre vert egy szomszédot.
   Evelin bloody.Sub beat a neighbor.Acc
   ‘Evelin beat a neighbor bloody.’
   Evelin beat a neighbor.Acc bloody.Sub
Intended: ‘Evelin beat a neighbor bloody.’

(16) Hungarian

a. Kati kalapált egy vaslemét.
Kati flat.Sub hammered an iron_plate.Acc

‘Kati hammered an iron plate flat.’

b. *Kati kalapált egy vaslemét laposra.
Kati hammer flat. Acc iron_plate.Sub

Intended: ‘Kati hammered an iron plate flat.’

(17) Hungarian

a. Bálint simára fésülte Lilla haját.
Bálint combed hom.Sub hair LillaPoss.Acc

‘Bálint combed Lilla’s hair smooth.’

b. *Bálint fésülte Lilla haját simára.
Bálint combed hom.Sub hairPoss.Acc smooth hom.Sub

Intended: ‘Bálint combed Lilla’s hair smooth.’

The strings in (15b), (16b) and (17b) are rendered ungrammatical if the intended reading is a perfective reading and Evelin, Kati and Bálint are not focused. It is the postverbal position of vérresre ‘lit. onto bloody’, laposra ‘lit. onto flat’ and simára ‘lit. onto smooth’ that causes ungrammaticality in these examples. As pointed out by Surányi and Hegedűs (2013), this constraint applies to strong resultatives such as rekedtre kiabált megáti ‘shouted himself/herself hoarse’, weak resultatives such as pirosra festett egy kerítést ‘painted a fence red’ and spurious resultatives like vékonyra szeletelte a húst ‘sliced the meat thin’, as well. For more on these classes of resultatives across languages, see Washio (1997) and Levinson (2010).

In this chapter an account is provided of these and some other event lexicalization facts of Hungarian and it will be argued that in this language there is a syntactic requirement such that result-encoding elements occupy a VP-external position in the sentence. It is stressed that Hungarian is different from English and other similar languages, where result-denoting particles and resultative APs or PPs exert their event aspectual functions low in the VP as complements, and, at the same time, it turns out to be similar to Slavic languages in that results must eventually be expressed in a functional projection above VP. This restriction is motivated by scope, as discussed below.

5.4 Revisiting the lexicalization of change of state/location events

In this section it is shown that event lexicalization in the Hungarian sentence is determined by scopal factors. Although result components are expressed by pre-categorized constituents, as is often the case in English-type languages, such constituents in Hungarian function as event-maximizing elements, which must take scope over the domain they c-command in visible syntax, similarly to quantifiers and adverbs on the left periphery of the sentence (cf. É. Kiss 1984, 2009). This is demonstrated in (18), where the goal-denoting PPs a kertbe ‘into the garden’ and ki ‘out’ in (18a) and (18b) are in a preverbal position.

44 For more on Hungarian clause structure, see, for example, É. Kiss (2008a) and É. Kiss (2009), among others. The former provides an analysis of the structure of result-denoting elements while focusing on verbal particles and arguing that particles move out of their base-generated postverbal position to [Spec, PredP] above VP, whereas the latter discusses the syntax of predicate and sentence adverbials, which also appear to the left of the predicate in the unmarked case.
An important consequence of the requirement above is that Hungarian complex resultative constructions are often built on particle verbs. Crucially, when the resultative PP occupies a postverbal position in neutral sentences, the particle is obligatory, as illustrated below.

In each example in (19), the absence of the verbal particle gives rise to ungrammaticality with the resultative predicate in a postverbal position. With a particle attached to the primary verbal predicate, however, each sentence becomes fully grammatical.

This constraint is also observable with surface contact verbs such as seper ‘sweep’ with the additional requirement that when this verb appears with the theme as direct object, as in (20), the endpoint to the denoted event must be expressed in the sentence.

(20) Hungarian
a. Klára *(bele-)sepert néhány érmét az üvegbe.
Klára Prt-swept some coin.Acc the jar.III
Klára swept some coins into the jar.
b. Béla *(le-)sepert egy újságot a földre.
Béla Prt-swept a newspaper the ground.Sub
‘Béla swept a newspaper onto the ground.’

(21) Hungarian
a. *Klára sepert néhány érmét.
Klára swept some coin.Acc
b. *Béla sepert egy újságot.
Béla swept a newspaper.Acc
As discussed by Levin and Rappaport Hovav (2022), English has a similar requirement with transitive sweep, which must appear with an endpoint-denoting PP secondary predicate in the presence of a theme direct object.

(22) a. She swept the card *(through the electronic device).
b. She swept a net *(through the weeds).
c. She swept the coins *(off the counter).
d. She swept the crumbs *(into an empty jar).

(adapted from Levin and Rappaport Hovav 2022: 14)

The data above show that transitive *sweep requires the presence of a PP resultative with theme direct objects like *the card and *the coins and in each case an accomplishment structure arises.

The requirement that a prefix must appear on the primary verb in the presence of a postverbal resultative secondary predicate is also at work in Slavic languages and Latin, as discussed by Gehrke (2008) and Aceo-Matellán (2016: 175). It is illustrated with Gehrke’s (2008) examples associated with change-of-location verbs from Russian:

(23) Russian
a. On pri-exal v Moskву. he to-drove.Pf in Moscow.Acc
‘He arrived in Moscow.’
b. On u-exal iz Moskvy he away-drove.Pf out Moscow.Gen
‘He left Moscow.’
c. On pere-šel (čerez) ulicu. he across-went.Pf (via) street.Acc
‘He crossed the street.’
(Gehrke 2008: 202–203)

Gehrke (2008) argues that it is essential for the prefix to appear on the primary verbal predicate so that this predicate can combine with the secondary resultative predicate. She also suggests that instead of focusing on whether paths are encoded in the verb or elsewhere, as in Talmy’s typology, we should examine whether or not accomplishment/achievement structures can be built from an activity-denoting primary verb and a non-verbal secondary resultative predicate in a given language. If there is such a shift in our perspective, we can conclude that Slavic languages such as Russian and Czech behave like verb-framed languages since “there seems to be some morphological requirement to express resultativity on the verb in these languages” (Gehrke 2008: 203). She further stresses that these languages lack English-type AP resultatives such as *hammer the metal flat, since it is always an accomplishment/achievement verb carrying a prefix and co-occurring with a PP resultative that describes events expressed in English by *hammer the metal flat-type resultatives. Crucially, Hungarian also lacks AP resultatives. Instead, it is always a case-marked PP resultative that appears in accomplishment/achievement structures in a postverbal position with particle verbs or in a preverbal position with particleless verbs (see (20a)), which is a pattern not found in Slavic languages.

By contrast, English resultative expressions are productive in the environment of purely manner-denoting verbs, where the result-encoding expression (e.g. a resultative AP as in *hammer the metal flat, or a verbal particle, as in look the information up) sits low in the VP in a complement position, as argued by Travis (2010) or advocates of small-clause analyses
Likewise, Finnish “also does not seem to require the appearance of a Path-signaling affix in resultative constructions based on PPs” (Acedo-Matellán 2016: 231). This is illustrated in (24), taken from Heinämäki (1983), where the transitive case-marked expressions in (26b) and (24c) co-occur with the base verb *ampui* ‘shot’.

(24) Finnish

a. Metsästäjä *ampui* lehmän.
   hunter shot cow.Acc
   ‘The hunter shot the cow.’

b. Metsästäjä *ampui* lehmän *kuoliaaksi*.
   hunter shot cow.Acc dead.Tra
   ‘The hunter shot the cow dead.’

c. Metsästäjä *ampui* lehmän *silmäpuoleksi*.
   hunter shot cow.Acc eye-half.Tra
   ‘The hunter shot and blinded the cow in one eye.’

(25) Hungarian

a. A *vadász* lőtt egy tehenet (valakinek).
   the hunter Prt-shot a cow.Acc (someone.Dat)
   ‘The hunter shot a cow for someone’.
   (available on a creation reading only)

b. A *vadász* le-lőtt egy tehenet.
   the hunter Prt-shot a cow.Acc
   ‘The hunter shot a cow and the cow became dead.’

Unlike in Finnish, the accusative-marked object in (25a) will not ensure event boundedness in the environment of the verb *lőtt* ‘shot’ if the sentence is meant to receive a change-of-state reading. The particle *le* must be attached to the verb so that a telic change-of-state reading can become available. Without a particle, telicity arises only on the (creation) reading that the cow becomes available for someone at the culmination of the shooting event. Interestingly, the result predicate *halálra* ‘to death’ seems somewhat unnatural to our ears with this verb, as shown by the question mark in (26a), despite the fact that it can be combined with at least some manner verbs such as *kínoz* ‘torture’ and *tapos* ‘trample’, as evidenced by (26b) and (26c).
(26) Hungarian
a. ?A vadász halálra lőtt egy tehenet.
the hunter death.Sub shot a cow.Acc
Intended: ‘The hunter shot a cow to death.’
b. János halálra kinozta Pétert.
János death.Sub tortured Peter.Acc
‘János tortured Peter to death.’
c. Az elefánt halálra taposta az orvvadászt.
the elephant death.Sub trampled the poacher.Acc
‘The elephant trampled the poacher to death.’

For some reason, the appearance of the result predicate halálra ‘to death’ is more restricted than that of its counterparts in other languages such as English. Compare and contrast the following examples from Hungarian and English:

(27) Hungarian
?János halálra ölte / fojtotta / mérgezte Józsefet
János death.Sub killed / strangled / poisoned Joseph.Acc

       b. John strangled/poisoned Joseph to death.

As will also be discussed in Section 5.5, Hungarian verbs of killing such as fojt ‘strangle’ and mérgez ‘poison’ must appear with a verbal particle in the sentence; the absence of a particle results in ungrammaticality. The presence of the resultative PP halálra ‘to death’ with these verbs also yields a somewhat unusual string, as shown by (27). The English counterparts of the examples in (27), where each verb appears with a result AP or PP, are all possible.

Returning to how Hungarian compares to Latin and Slavic languages, it must also be noted that, in addition to the similarities already discussed above, Latin and Slavic languages are also different from Hungarian in that in the former the verb stem and the prefix must form a word, whereas in Hungarian there is no such requirement. According to Acedo-Matellán (2016: 208), in Latin and Slavic languages, the Path head and v undergo univerbation, which is achieved through successive Raising from Compl-Place to v.

In Hungarian, telicizing particles like fel ‘up’ in (29) are separable from the verb, as shown below:

(29) Hungarian
Fel kell, hogy hívjam Marit ma este.
Prt have-to Comp call.Subj.1Sg Mari.Acc today evening
‘I have to call Mari tonight.’
(adapted from É. Kiss 2008a: 46)

As discussed in detail in Chapter 3, such particles, which are assumed here to be PPs, as in Hegedűs (2013), have recently been argued by Kardos and Farkas (2022) to exert an event-maximizing function in [Spec, AspP], along with resultative PPs, where AspP is sandwiched between VP and vP (see also Surányi 2014). Where there is AspP (i.e. the grammar signals telicity), telicity is an entailment. By contrast, in the absence of AspP, there is atelicity (i.e. atelicity is lack of telicity as in Borer (2005)) or telicity that arises as an implicature, as with creation/consumption predicates. Consider (34) from Kardos (2019). See also Section 3.4.3.
The telicity of építtet egy házat ‘built a house’ is argued to be available due to the unique homomorphic relation that holds between the referent of the scalar argument of the verb and that of the theme, where the structure of the scale is specifically determined by the structure of the theme. This is not possible with non-creation/non-consumption predicates in Hungarian, as further discussed in the next section.

5.5 Some further consequences

Here more empirical consequences are considered of the hypothesis that result-encoding elements must be VP-external as dictated by scopal considerations. Further possible and impossible structures are discussed from the domain of change-of-state and change-of-location verbal predicates. First, it is demonstrated that situations inherently associated with an endpoint are typically obligatorily expressed by particle verbs or base verbs preceded by a resultative predicate, as in (31) (for more examples, see É. Kiss 2008a: 21). Put differently, Hungarian does not seem to have path-encoding verbs of the English type similarly to Russian.45

(31) Hungarian
a. János {el-tört/ darabokra tört} egy vázát.
János {Prt-broke / pieces. Subl broke} a vase. Acc
‘János {broke a vase / broke a vase into pieces}.’
a’. *János tört egy vázát
János broke a vase. Acc
Intended: ‘János broke a vase.’
b. Róbert meg-halt.
Róbert Prt-died
‘Róbert died.’
b’. *Róbert halt.
Róbert died
Intended: ‘Róbert died.’
c. Sára át-szelt egy folyót.
Sára Prt-crossed a river. Acc
‘Sára crossed a river.’
c’. *Sára szelt egy folyót.
Sára crossed a river. Acc
Intended: ‘Sára crossed a river.’

45 For some exceptions to this generalization and a brief discussion about these exceptions, see Hegedűs (2018) and Kardos and Farkas (2022).
The English counterparts of the verbs in (31a)–(31d) are all base verbs, whereas the Hungarian verbs expressing inherently bounded situations are not available on their own. Verb stems such as *tör* in *eltör* ‘break’ and *hal* in *meghal* ‘die’ are presumably responsible for the expression of a specific result, but that the referent of the theme ends up in that result state at the culmination of the denoted event is attributed to the particles co-occurring with these stems.

Furthermore, activities typically carried out in some manner and also associated with some result state are obligatorily expressed by a combination of a base verb and a result-denoting element. This is different in English, where, for example, some verb stems expressing killing events can easily describe how the killing activity is carried out and also that some result obtains at the termination of the eventuality (Husband 2018; Ausensi 2021). Compare and contrast the English and Hungarian examples below:


(33) Hungarian

<table>
<thead>
<tr>
<th>English</th>
<th>Hungarian</th>
</tr>
</thead>
<tbody>
<tr>
<td>strangled</td>
<td>*(meg-)főjtotta/</td>
</tr>
<tr>
<td>hanged</td>
<td>*(fel-)akasztotta/</td>
</tr>
<tr>
<td>crucified</td>
<td>*(meg-)feszítette/</td>
</tr>
<tr>
<td>beheaded</td>
<td>*(meg-)főjtotta/</td>
</tr>
<tr>
<td>poisoned</td>
<td>*(le-)fejezte/</td>
</tr>
<tr>
<td>quartered</td>
<td>*(meg-)mérgelte</td>
</tr>
<tr>
<td></td>
<td>*(fel-)négyelte Tamás.</td>
</tr>
</tbody>
</table>

‘József strangled / hanged / crucified / beheaded / poisoned / quartered Tamás.’

As argued by Beavers and Koontz-Garboden (2020), English manner of killing verbs form a special class in that they can encode both a manner and a result component, thereby posing a challenge to the manner/result complementarity hypothesis advocated by Rappaport Hovav and Levin (2010), at least in a truth-conditional sense. As shown in (33), the Hungarian counterparts of the English manner of killing verbs in (32) are all particle verbs; the absence of a particle with these verbs results in ungrammaticality. In other words, Hungarian manner of killing verbs quite transparently seem to show manner/result complementarity: the verb stem is associated with the manner component, whereas the particle in its preverbal position ensures that the referent of the theme ends up in a specific result state. For more on what kind of complementarity characterizes Hungarian verbs, see Chapter 6.

Also, if result-encoding constituents such as verbal particles and resultative predicates are directly responsible for telicity in Hungarian and they must take scope over their domain in visible syntax, activity-denoting predicates other than creation/consumption predicates should not express telic eventualities in the presence of theme DPs with quantized reference (see Chapter 6).

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46 It is worth pointing out that the data in (32) do not pose a challenge for the manner/result complementarity hypothesis understood as a structural constraint, as proposed by Mateu and Acedo-Matellán (2012), whereas the data in (33) seem to exhibit manner/result complementarity both in a truth-conditional and a structural sense. For more on this distinction, see Chapter 6.
Kardos 2019), which is contra what we often see in English and other languages (both satellite-framed and verb-framed languages). Compare and contrast (34) and (35).

(34) Hungarian
   a. Sára kalapált egy vaslemezt. (strictly atelic)
      Sára hammered an iron plate. Acc
      ‘Sára hammered an iron plate.’
   b. Péter takarított egy szobát. (strictly atelic)
      Péter cleaned a room. Acc
      ‘Péter cleaned a room.’
   c. Richárd festett egy kerítést. (strictly atelic on a non-creation reading)
      Richárd painted a fence. Acc
      ‘Richárd painted a fence.’

(35) a. Sara hammered an iron plate. (telic or atelic)
   b. Peter cleaned a room. (telic)
   c. Richard painted a room. (telic or atelic)

The Hungarian examples above are all strictly atelic in the absence of a result-encoding element, whereas the English counterparts of the verb stems can clearly give rise to telic eventualities with bounded objects in the sentence (Beavers 2012b).

With English manner of motion verbs such as climb, walk and swim in (36), which can take a path as direct object, there is also “a strong inference that the entire understood path of motion is traversed” (Levin and Rappaport Hovav 2022: 20), which means that an endpoint can easily be identified. In other words, the object DP serves as an incremental theme in these examples, as well.

(36) a. Claire climbed the hill.
   b. Jason walked the South West Coast Path.
   c. Susan swam the full length of the river.

In Hungarian, when appearing with a measuring-out path object, the counterparts of climb the hill-type predicates must appear with an independent result-encoding element before the verb such as a verbal particle in the neutral sentence.

(37) Hungarian
   a. Bálint *(meg)-mászta a hegyet. (telic)
      Bálint Prt-climbed the hill. Acc
      ‘Bálint climbed the hill.’
   b. Ili *(be)-járta az erdőt/ a tanösvényt.47
      Ili Prt-walked the forest. Acc the trail. Acc
      ‘Ili walked {all over the forest / the trail}.’
   c. Jácint *(be)-gyalogolta a várost. (telic)
      Jácint Prt-walked the city. Acc
      ‘Jácint walked all over the city.’

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47 This example illustrates synecdoche with the forest being interpreted as the path of the walking event.
d. Gabi *(be)-táncolta a színpadot.  
   Gabi Prt-danced the stage.Acc  
   ‘Gabi danced all over the stage.’

The predicates above are all obligatorily associated with a particle and that the path has been traversed in its entirety is entailed by each example, as shown by the anomaly caused by the second clause in (38a), (38b) and (38c).

(38) Hungarian

a. Bálint meg-mászta a hegyet, #de a hegy tetejére  
   Bálint Prt-climbed the hill.Acc but the hill top.Poss.Sub  
   not reached Prt  
   #‘Bálint climbed the hill but did not reach the hilltop.’

b. Gabi be-táncolta a színpadot, #de nem minden részén  
   Gabi Prt-danced the stage.Acc but not every part.Poss.Sup  
   táncołt a színpadnak.  
   danced the stage.Dat  
   #‘Gabi danced all over the stage but did not dance on every part of the stage.’

c. Gergely be-járta a tanösvényt, #de nem jutott  
   Gergely Prt-walked the trail.Acc, but not reached  
   a végére.  
   the end.Poss.Sub  
   #‘Gergely walked the trail but didn’t get to the end of it’.

Whereas in English the complete traversal of the path is argued in the literature to be only an inference (see, for example, the quote from Levin and Rappaport Hovav (2022) above), in Hungarian it is not cancellable due to the presence of the verbal particle. This may have to do with the fact that English and Hungarian have vastly different result-encoding elements. Results in Hungarian are expressed by verbal particles and resultative predicates, which, by virtue of having a quantificational force, impose specific semantic restrictions on the VP from their VP-external aspectual position. The English counterparts of these elements seem to simply express the final state of an entity in a VP-internal complement position without being associated with an operator quantifying over events.

5.6 Conclusion

Overall, then, the typology of languages in terms of how they lexicalize different components of change-of-state and change-of-location events appears to be more complex than previously thought. English and Hungarian, which have both been argued to belong to the same Talmyan class, seem to have quite different event lexicalization strategies. Result-denoting elements such as result APs, PPs and verbal particles in English tend to exert their aspectual functions *in situ* in the VP as complements, while in Hungarian this is not allowed. Result-denoting elements in this latter language, similarly to languages such as Latin and Slavic languages and even Romance, must merge/re-merge in the functional domain above VP to make their verbal predicates telic. Further variation may also be found across languages regarding where exactly result-encoding elements exert their endpoint-denoting functions in the functional domain. There is evidence that in Hungarian it is [Spec, AspP] above VP that hosts result-denoting expressions, whereas in Spanish results form a complex head with v. This has the consequence
that the great majority of Hungarian verbs are pure manner verbs, whereas verbs in Spanish-like languages are mainly path verbs. English is also known to have a sizeable class of manner verbs similarly to Hungarian, but the two languages have been argued here to ultimately employ quite different strategies when it comes to the expression of events associated with some result given the different means they have to express results.

It is also possible according to some scholars that language variation may arise due to the absence or presence of AspP encoding inner aspect. This is the position taken by MacDonald (2010), who argues that while English has AspP in the event domain, Russian does not, which is why there is no object-to-event mapping in the latter and PPs on their own cannot turn atelic predicates into telic ones. A larger question, of course, is why languages use different positions in the event domain to express results and what specific consequences the location of Path/Res has with respect to which structures are possible and which ones are impossible in a given language. In this chapter, it has been proposed that the structure of the event domain in Hungarian is determined by scope. Result-encoding elements associated with a quantificational force must take scope over their domain in their VP-external position in visible syntax, similarly to quantifiers, adverbs and adverbial adjuncts in the higher functional domain in the sentence.
6 Lexical semantic constraints in Hungarian verbs

6.1 Introduction

This chapter sets out to explore in more detail how Hungarian base verbs and other components lexicalize various facets of real-world situations. First, I discuss the manner/result complementarity hypothesis according to which roots in verbs may either express the manner or the result of events, but not both at the same time (Rappaport Hovav and Levin 2010) (see also Chapter 4). In the second part of the study, I show that the lexical semantics of Hungarian verbs is typically constrained in a way that roots express the manner of events, whereas the boundedness of events is encoded independent of the verbal root in the functional domain above VP in an aspectual projection between vP and VP, as argued in Chapter 3. Another way in which meaning components in Hungarian verbs are constrained is that their root lexicalizes a result state, whereas the attainment of this state is expressed outside of the verb stem associated with this root. This is motivated by scopal considerations, as discussed in the previous chapter.

Before we proceed, two terminological comments are in order: Roots in this work are understood as abstract meaning components expressing activities (e.g. running or walking) or states (e.g. dead, warm) thanks to which verbs can be distinguished from other members of their verb class (Beavers and Koontz-Garboden 2020: 9). In other words, the notion ‘root’ is not used in a morphological sense, similarly to the verb ‘lexicalize’. For example, that a verbal root lexicalizes a result state or the manner in which an activity is carried out means that it contributes this type of information to the meaning of the verb. Verbal roots can be characterized by a specific denotation and they can also appear in an event structure as arguments or modifiers. For more on roots, see also Chapter 4.

The chapter is structured as follows: In Section 6.2 I discuss in more detail the manner/result complementarity hypothesis of Rappaport Hovav and Levin (2010), which the authors formulate as a universal principle describing verb meanings. In addition to some predictions of this theory, I also address some problems, as formulated in recent studies. The main goal of Section 6.3 is to show that meaning components in Hungarian verbs show complementarity in a way that event boundedness is expressed outside verb stems due to a syntactic constraint, whereas the manner of activities or a result state is encoded in the verbal root associated with the verb stem. Therefore, roots do not lexicalize a result state or the manner in which an activity is carried out and boundedness at the same time. By contrast, a subset of English verbs encode information about both a result state and the manner in which a given activity is carried out (Beavers and Koontz-Garboden 2012; 2020; Ausensi 2024), thereby posing a challenge to the manner/result complementarity hypothesis. Section 6.4 concludes.

6.2 Lexical semantic constraints in verbs

6.2.1 The manner/result complementarity hypothesis: Predictions

As discussed in Chapter 4, a central question in the literature on lexical semantics is how verb meanings are constrained regarding the meaning components they encode. According to Rappaport Hovav and Levin (2010), verb meanings are constrained in a way that verbal roots may lexicalize the manner of an activity or a result state, but not both at the same time. This

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48 This chapter uses material from Kardos (2023a).
hypothesis has become especially important in the literature on lexical semantics and the syntax-semantics interface since it allows us to make predictions about the meaning components lexicalized in verbs and the event structures characterizing verbs (Ausensi 2024).

(1) **The manner/result complementarity hypothesis**: Verbal roots may appear with primitive predicates as arguments, as in (18) and (19) in Chapter 4, where the root represents a result state argument of the primitive predicate BECOME, or they may also appear in event structures as elements modifying primitive predicates, as in (16) and (17) in the same chapter, where the root modifies the primitive predicate ACT; roots may not appear in verbs as modifiers and arguments at the same time. If the root is a modifier, the manner of activity is lexicalized in the verb, whereas with roots appearing as arguments, a result state is encoded in the verb.

Manner verbs are illustrated in (1), whereas some result verbs are listed in (2).

(1) **Manner verbs**: nibble, rub, scrub, scribble, sweep, laugh, run, swim
(2) **Result verbs**: break, clean, empty, fill, freeze, kil, melt, open, arrive, die, enter

That these verbs exhibit a different grammatical behavior, as shown below, is evidence for their different class membership.

Manner verb diagnostics:

(i) Manner verbs have stricter selectional restrictions with respect to their subjects than result verbs.49

(3) a. John scrubbed the floor with a stiff brush.
   b. *The stiff brush scrubbed the floor.

(4) a. John broke the vase with a hammer.
   b. The hammer broke the vase.

   (Beavers and Koontz-Garboden 2020: 174)

(ii) The activity encoded in the verb may not be denied.

(5) a. *Jim ran, but didn’t move a muscle.
   b. Kim broke my DVD player, but didn’t move a muscle.

   (Beavers and Koontz-Garboden 2020: 175–176)

Examples (3) and (4) show that manner verbs and result verbs, such as scrub and break, respectively, are associated with different argument realization patterns. Verbs encoding manner roots have stricter selectional restrictions regarding their subjects, as illustrated in (3a) and (3b). Verbs like scrub generally require agents, whereas result verbs are also compatible with natural forces or other inanimate subjects, as in (4). Furthermore, with verbs like scrub and run it cannot be denied that that activity of the verb occurred, as shown in (5a). By contrast, result verbs like break are compatible with the denial of action, indicated in (5b), which means that this is not a necessary component in such verbs. A third characteristic of verbs like scrub is that they express complex changes in contrast to result verbs associated with simple changes.

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49 See also Bibok (2017) and Bibok (2018) for more on verbs participating in the causative-inchoative alternation in Hungarian.
Rappaport Hovav and Levin (2010, Section 2.4) clarifies this by arguing that result verbs have simple, scalar changes in their denotation, since they are associated with changes along a scale in some dimension, which can be height or temperature. Manner verbs, by contrast, cannot be characterized by such changes since in their case there is not one property in terms of which they express a change along a scale. Manner verbs express a variety of changes, as illustrated by the verb *exercise*, associated with a number of non-specific movements (Rappaport Hovav and Levin 2010: 33).

Result verbs are characterized by the following properties regarding their interpretation and argument realization.

**Diagnostics probing for a result state in verbal roots:**

(i) The result cannot be denied.

(6)  
   a. *Shane just broke the vase, but nothing is different about it.
   b. Tracy just swept the floor, but nothing is different about it.  

   (Beavers and Koontz-Garboden 2020: 167)

(ii) The object is not omissible.

(7)  
   a. Kim broke the vase.
   b. *All last night, Kim broke.

(8)  
   a. Kim scrubbed the floor.
   b. All last night, Kim scrubbed.

   (Beavers and Koontz-Garboden 2020: 169)

(iii) Resultative expressions are restricted.

(9)  
   a. Kim broke the stick in half/into pieces/ purple/ into the ground.
   b. Cinderella scrubbed the table clean/shiny/bare.

   (Beavers and Koontz-Garboden 2020: 169–170)

The examples in (6a) and (6b) show that with verbs like *break* it cannot be denied that a result state is attained by an event participant, whereas manner verbs like *sweep* are compatible with a continuation expressing that the referent of the theme has not undergone any change. Another property of result verbs is that their internal object argument must obligatorily appear on the syntactic surface (7), while manner verbs do not require their objects to be overtly realized, as shown in (8b). As noted by Beavers and Koontz-Garboden (2020, 168), the impossibility of object omission describing result verbs may stem from the following condition, also discussed in Chapter 4:

(10) The argument-per-subevent condition: There must be at least one argument in the syntax per subevent in the event structure.  

   (Rappaport Hovav–Levin 2001: 779)

According to Beavers and Koontz-Garboden (2020: 168), this constraint may be derived from the fact that the event structure of scalar result verbs has a single participant in the caused subevent, representing a change of state (Rappaport Hovav and Levin 1998: 122). This participant is the patient expressed by the direct object. See the representations in (18) and (19) in Chapter 4. Finally, a third property of result verbs is that they can only appear with resultative
expressions compatible with the results encoded in them. Manner verbs are not constrained this way. This is shown by (9a) and (9b).

As mentioned in Section 4.3.2, Rappaport Hovav and Levin (2010) derive manner/result complementarity from a lexicalization constraint, repeated in (11), according to which verbal roots can be modifiers or arguments in the event structure of the verb.

(11) **Lexicalization constraint:** A root can only be associated with one primitive predicate in an event schema, as either an argument or a modifier.

(Rappaport Hovav and Levin 2010: 25)

Assuming the event schemas in (16)–(19) in Section 4.2.2 and that manner roots modify the primitive predicate ACT, whereas result roots are arguments of the predicate BECOME, we can conclude that verbal roots cannot express manner and result at the same time. This in turn yields manner/result complementarity, which the authors consider to be a universal principle, though they also note that languages differ as to which component in the sentence lexicalizes the manner of activities or the result. For more on this, see Section 4.3.2.

In this chapter I aim to show that meaning components in Hungarian verbs exhibit complementarity as follows: roots typically lexicalize the manner of activities and it is verbal particles and resultative expressions, which are both syntactically independent elements, that are responsible for event culmination, which is often accompanied by a new result state. In the case of result verbs, the root only encodes a result state, whereas the attainment of this state is expressed outside the verb stem associated with the root. It is an important claim in this chapter that, contrary to what we see in English, result states in Hungarian are typically accompanied by event culmination (see also Section 6.3 for more on this). Before that, however, I address some problems mentioned in the literature regarding the manner/result complementarity hypothesis and some replies to these problems.

6.2.2 The manner/result complementarity hypothesis: Problems

As also briefly discussed in Chapter 4, in recent decades, multiple scholars have questioned manner/result complementarity as proposed by Rappaport Hovav and Levin (2010). For example, Beavers and Koontz-Garboden (2012, 2020) argue that although Rappaport Hovav’s and Levin’s lexicalization constraint applies to verbal event structures, as a truth-conditional claim, it does not stand up to scrutiny. This means that (i) it is plausible to assume that verbal roots may appear either as modifiers or arguments in event structures, and structures with the root occupying both a modifier position and an argument position are not legitimate and (ii) there are roots whose truth conditions are specific about the manner of an activity and a result state (see the logical representation corresponding to the verb guillotine in (22)). These authors also note that the constraint according to which a morphologically simple verb may not encode a root that is both a modifier and an argument in its event structure is just a stipulation; it is not clear what general principle this constraint can be derived from (Beavers and Koontz Garboden 2020: 210–211).

Therefore, Beavers and Koontz-Garboden conclude based on their investigation of the grammatical and interpretive properties of verbs of killing, verbs of cooking and verbs of

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50 Interestingly, Malka Rappaport Hovav and Beth Levin also claim in their earlier work that there are verbs that express manner and result at the same time. This is illustrated by the English verb cut (Rappaport Hovav–Levin 1998: 101).
ballistic motion that although manner/result complementarity may characterize verb meanings as a tendency, we need to assume a third verb class, whose members exhibit the grammatical behavior of verbs such as those in (1) and (2). Here are some examples illustrating this verb class:

(12) **Verbs lexicalizing manner and result**: *drown, crucify, electrocute, guillotine*

Beavers and Koontz-Garboden (2020: 180–182) show using the diagnostics discussed in the previous section that the verbs in (12) encode both the manner of an activity and a result state. The three result state diagnostics yield the following results:

(13) a. *Jane just drowned Joe, but nothing is different about him.*
    b. *Jane just crucified Joe, but nothing is different about him.*

(14) a. *All last night, Shane crucified.*
    b. *All last night, Shane drowned.*

(15) a. *Shane drowned Sandy blue.*
    b. *The Romans crucified Jesus to the tomb.*

(16) *Jason drowned Mike to death.*

The manner diagnostics illustrated below also confirm that verbs like those in (12) encode a manner component in addition to a result component:

(17) a. *John crucified Jesus with sailing rope.*
    b. *Sailing rope crucified Jesus.*
    c. *The wind crucified Jesus by raising his cross.*

(18) a. *The governor crucified the prisoner, but didn’t move a muscle.*
    b. *The governor drowned the prisoner, but didn’t move a muscle.*

As shown above, the verb *crucify* and a subject having an agent role yield a natural sentence (17a), whereas the same verb is not compatible with inanimate subjects (17b), including natural forces, as in (17c). Furthermore, the test illustrated in (18) shows that sentences containing verbs like *crucify* or *drown* are not compatible with a continuation denying that the referent of the subject has carried out any activity.

The again-test also yields similar results to those above: When it comes to result verbs like *break* and *open*, it is either the whole event or the result state that is in the scope of the adverbial *again*, whereas with verbs of manner of killing we see something different.
Restitutive and repetitive readings of predicates like *open the door* are illustrated in (19), where only the result root is in the scope of *again* on the restitutive reading, whereas on the repetitive readings the adverbial occupies a higher position and so a larger portion of the event structure is in its scope. For more on these different readings with predicates like *open/close the door*, see Section 4.2.2.51

(19) a. John opened the door again, and it had been open before. (restitutive)
b. John opened the door again, and it had opened before. (repetitive)
c. John opened the door again, and he had opened it before. (repetitive)

The example below shows that verbs of manner of killing like *drown* have different interpretive properties in the environment of *again*: a restitutive reading with this adverbial is not available. It is only a repetitive reading that arises, according to which the patient participant has been killed by drowning before.

(20) **Context**: The only previous time the zombie died was when someone killed it with a chainsaw. It has come to life again, and John kills it by drowning.

#John drowned the zombie again.  
(Beavers and Koontz-Garboden 2020: 196)

The example containing transitive *drown* is not adequate in the context described in (20). This can be taken as evidence for the root encoding both the manner of the denoted activity and a result state; the result state alone cannot be in the scope of the adverbial *again*. Thus, Beavers and Koontz-Garboden (2020: 215–216) argue that manner/result complementarity cannot characterize verb meanings as an absolute constraint despite the fact that it does characterize the meanings of verbs in various verb classes. For more on this verb class, see Section 4.3.2.

Moreover, an important advantage of this hypothesis would be that we could assume a simpler lexicon instead of one associated with roots lexicalizing multiple meaning components (e.g. manner and result). However, it seems, in light of recent empirical findings reported in the literature, that there are, for example, roots in English that are characterized by more complex meanings. According to Beavers and Koontz-Garboden (2020: 216) the reason for this lies in how speakers conceptualize different states and activities. For instance, drowning events are conceptualized in a way that they happen in some manner and also culminate in a result state. Therefore, manner/result complementarity cannot characterize verb meanings in a truth-conditional sense. The diagnostics above show that, contra Rappaport Hovav’s and Levin’s claim, there are verbs that encode information about both the manner of an activity and a result state. This means that with such verbs the root is directly responsible for the expression of a result state (e.g. death) and for what kind of event causes this state to come about (e.g. a drowning event) (Beavers and Koontz-Garboden 2020: 200–201). The authors state that the hypothesis of Rappaport Hovav and Levin (2010) is correct as a hypothesis about the number of roots in an event structure, and not as a hypothesis about the type of information that may be encoded in a root: A verb may not be associated with a root that modifies the activity of the verb as a manner component and also a result root that expresses a result state in the event structure (21a). It is also impossible for a root to occupy both a manner postion and a result

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51 See also the syntactic and semantic representations of Beavers and Koontz-Garboden (2020: 16–18).
position in the event structure (21b). Assuming syntactified event structures, the following representations are thus not allowed:

(21)  a. *[vP DP ![v \sqrt{\text{ROOT1}} \ v_{\text{cause}}] [vP DP ![v \ v_{\text{become}} \sqrt{\text{ROOT2}}]]]

    b. *[vP DP ![v \sqrt{\text{ROOT}} \ v_{\text{cause}}] [vP DP ![v \ v_{\text{become}} \sqrt{\text{ROOT}}]]]

    (Beavers and Koontz-Garboden 2020: 161–162)

The authors suggest regarding the event structure of manner/result verbs that the root in such structures is a complement to v_{\text{become}} and their denotation is constrained in a way that the result state be caused by a specific causing event. This is illustrated by the denotation for the root of the manner/result verb Guillotine:

(22)  ![\sqrt{\text{GUILLOTINE}}] = \lambda x \lambda s [\text{dead}'(x, s) \land \exists e \exists v [\text{cause}'(v, e') \land \text{become}'(s, e') \land \forall v [\text{cause}'(v', e') \rightarrow \text{guillotining}'(v')]]

    (Beavers and Koontz-Garboden 2020: 201)

The representation in (22) shows that the root of Guillotine provides information about the dead state of the theme and also specifies the event that causes this state to come about such that it be a guillotining event. In other words, manner/result complementarity does not characterize the verb Guillotine, since the truth-conditions of the root are specific about both the manner of the activity of the verb and a result state. By contrast, the denotation of result verbs like Break is only specific about a caused result state without further constraining the type of causing event that causes this state. A property that Guillotine and Break have in common, though, is that the root is a complement to v_{\text{become}} in the syntactified event structure of both verbs, or an argument of the primitive predicate BECOME in a Rappaport Hovav and Levin-type representation like those in (18) and (19) in Section 4.2.2.

In other works, Mateu and Acedo-Matellán (2012) argue that manner and result are not meaning components, but possible interpretations derivable from the syntactic position of roots. If the root appears as an adjunct in the event structure (or belongs to the primitive predicate ACT in a Rappaport Hovav and Levin-style representation), the verb expresses the manner of an activity. If, by contrast, the root appears as a small clause complement (or as an argument of BECOME), a result state is expressed by the verb. On this view, roots do not have an ontological category, and so there are no result roots and manner roots as in Rappaport Hovav and Levin (2010). Mateu and Acedo-Matellán (2012) use the following examples, among others, to argue that verbs may express the manner of activity or the result depending on where the root is integrated into the event structure.

(23)  a. He broke into the room.

    a'. [vP ![v \sqrt{\text{BREAK}} v] [SC [DP he]] [into the room]]

    b. The glass broke.

    b'. [vP ![v [SC [DP the glass]] \sqrt{\text{BREAK}}]]

    (Mateu and Acedo-Matellán 2012: 211)

In (23a) the verb Break comes about in a way that the root \sqrt{\text{BREAK}}, which does not have a syntactic category, is attached to v as an adjunct and so the verb expresses an activity without

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52 For more on small clause analyses, see Hoekstra (1988) and den Dikken (1995).
culminating in a result state. In (23b), by contrast, the root is a small clause predicate within vP and the verb behaves as a result verb. Mateu and Acedo-Matellán (2012) thus conclude, similarly to Beavers and Koontz-Garboden (2020), that roots are not constrained conceptually; they may encode information about the manner of activities and a result state at the same time.

6.2.3 Malka Rappaport Hovav’s response to the critiques

Rappaport Hovav (2015) responds to the critiques above and discusses the question below in more detail:

Is verb meaning constrained in a truth-conditional sense or manner-result complementarity is simply a syntactic constraint?

Regarding the examples of Mateu and Acedo-Matellán (2012) discussed in the previous section, Rappaport Hovav (2015) argues that the verbs in (23a) and (23b) share the same result root. (23a) is different from (23b) in that the manner of the breaking event is also further specified in the former, but not the latter. An important piece of evidence for this claim, according to Rappaport Hovav, is that if roots did not have an ontological category, as assumed by Mateu and Acedo-Matellán (2012), we should expect argument realization patterns characterizing verbs to be less constrained, contra the facts.

Regarding the verbs of manner of killing discussed in Beavers and Koontz-Garboden (2012), Rappaport Hovav (2015) claims the following: (i) Verbs like crucify and electrocute are morphologically complex and so cannot be considered to be counterexamples for the manner/result complementarity hypothesis. (ii) Verbs like drown are associated with a result state component, but do not entail a manner component. This is supported by the fact that drown participates in the causative alternation, which characterizes result verbs, but not manner verbs. Consider (24), where (24a) is the intransitive alternant, whereas (24b) is the transitive one.

(24)   a. The boy drowned.
        b. John drowned the boy.

Regarding the examples above it is also important to note that it is not possible to identify a causing agent participant in the event structure of the verb. Assuming the Monotonicity Hypothesis of Koontz-Garboden (2009: 80), according to which “word formation operations do not remove operators from lexical semantic representations”, as also stated in (53) in Chapter 4, and seeing that unaccusative drown does not lexicalize any information about the manner of the denoted activity, we can conclude that this verb is a result verb.

In what follows I aim to show that Hungarian verbal roots tend to have a single ontological category. I also stress that contrary to what we see in English, the telicity of predicates and the encoding of result states seem to go hand in hand, if the verb stem contains a result root.

6.3 Constraints in Hungarian verbs

This section provides a brief discussion of the claims that (i) Hungarian verbal roots typically lexicalize the manner in which activities are carried out and (ii) culmination points, which are often but necessarily accompanied by the coming about of a result state, are encoded in a constituent independent from the root of the verb stem in the functional domain above VP in
This constituent is generally a quantificational, event-maximizing verbal particle or resultative expression. (See Chapter 3.) The majority of Hungarian verbs thus lexicalize a manner root (assuming Rappaport Hovav’s and Levin’s analysis). It is also possible that the root lexicalizes a result state, but the attainment of this state is expressed in a constituent outside the root.

The example in (25a) shows that the verbal particle clearly affects the aspectual interpretation of the predicate, where the particle *ki* gives rise to telicity and the verb stem only expresses an activity and the manner in which this activity is carried out. Sentence (25b) containing the same verb without the particle receives an atelic reading (see also É. Kiss 2008a for more on this).

   Bálint half hour under/half hour-for Prt-scrubbed a tub.Acc
   Literally: ‘Bálint scrubbed a tub in half an hour.’

b. Bálint fél óra alatt/*fél óráig *súrolt egy kádat.
   Bálint half hour under/half hour-for scrubbed a tub.Acc
   ‘Bálint scrubbed a tub for half an hour.’

The predicate *kisúrolt egy kádat* ‘Prt-scrubbed a tub’ is compatible with the time span adverbial *fél óra alatt* ‘in half an hour’ and incompatible with the durative adverbial *fél óráig* ‘for half an hour’ (Kiefer 1992). This is evidence for the predicate being telic. By contrast, the predicate *súrolt egy kádat* ‘scrubbed a tub’ sounds natural with the adverbial *fél óraig* ‘for half an hour’ and is incompatible with *fél óra alatt* ‘in half an hour’. This diagnoses atelicity.

The verb *súrol* ‘scrub’ shows the interpretive and argument realization properties of English manner verbs, whereas *kisúrol* ‘Prt-scrub’ has somewhat different properties from what we see with English result verbs.

(26) a. János egész nap súrolt.
   János whole day scrubbed
   ‘János scrubbed all day.’

b. János súrolt egy kádat, de a kád nem változott semmit.
   János scrubbed a tub.Acc, but the tub not changed nothing.Acc
   ‘János scrubbed a tub, but nothing is different about it.’

   János Prt-scrubbed a tub.Acc
   ‘János scrubbed a tub, but nothing is different about it.’

b. János ki-súrolt egy kádat, de a kád nem változott semmit.
   János Prt-scrubbed a tub.Acc but the tub not changed nothing.Acc
   ‘János scrubbed a tub, but nothing is different about it.’

The verb *súrol* ‘scrub’ may appear without a direct object in the sentence (26a), and the sentence remains adequate with the continuation expressing that the referent of the theme did not undergo any change in the course of the denoted event (26b). The particle verb *kisúrol* ‘Prt-scrub’, by contrast, requires its direct object to appear on the syntactic surface (27a), and, as opposed to what characterizes English result verbs, this verb is compatible with a continuation asserting that there was no change in the tub (27b). This shows that the particle is only responsible for providing the denoted eventuality with an endpoint. The verb *kisúrol* ‘Prt-scrub’ does not lexicalize a result state.

The verbs *mos* ‘wash’ and *kimos* ‘Prt-wash’ exhibit a similar behavior (Szávó Andrea, personal communication), as demonstrated in (28) and (29).
(28) a. Béla egész nap mosott.
Béla whole day washed
‘Béla washed clothes all day.’
b. Béla mosott egy olajfoltos nadrágot, de a nadrág nem változott semmit.
Béla washed an oil_stain.Adj trouser.Acc, but the trouser not changed nothing.Acc
‘Béla washed a pair of trousers with oil stains, but nothing is different about it.’

(29) a. Béla ki-mosott *(egy olajfoltos nadrágot).
Béla Prt-washed *(a oil_stain.Adj trouser.Acc)
‘Béla washed a pair of trousers with oil stains.’
b. Béla ki-mosott egy olajfoltos nadrágot, de a nadrág nem változott semmit.
Béla Prt-washed an oil_stain.Adj trouser.Acc, but the trouser not changed nothing.Acc
‘Béla washed a pair of trousers with oil stains, but nothing is different about it.’

The argument structural and interpretive properties of the verb mos ‘wash’ in (28) allow us to conclude that this verb, similarly to súrol ‘scrub’, lexicalizes the manner of the denoted activity without a result state. By contrast, (29a) shows that the verb kimos ‘Prt-wash’ requires an overt direct object and (29b) also serves as evidence for the claim that the truth conditions characterizing this verb do not contain a result state, either.53

Another example in (30) is associated with both an endpoint and a result state, as supported by the semantic anomaly caused by the continuation denying the attainment of a result state.

(30) János 10 perc alatt/*10 percig meg-szárított egy törölközőt.
János 10 minute under/10 minute-for Prt-dried a towel.Acc
#de a törölköző nem lett száraz.
but the towel not became dry
‘János dried a towel in 10 minutes, but the towel did not become dry.’

It is well known that Hungarian verbal particles precede the verb stem in neutral sentences; otherwise, they may occupy a postverbal position with, for example, a focused element or negation in the sentence. This is illustrated in (31) and (32), respectively (É. Kiss 2002: 56).

(31) JÁNOS szárított meg egy törölközőt.
János dried Prt a towel.Acc
‘It was John who dried a towel (and not someone else).’

(32) János nem szárított meg egy törölközőt.
János not dried Prt a towel.Acc
‘János did not dry a towel.’

53 The verb kimos ‘Prt-wash’ allows an implicit direct object if it describes a conventional washing activity. For more examples, see É. Kiss (2005) and Section 2.2.2.1.
I assume that the word order variation in the examples above is the consequence of a movement operation: The verb moves out of VP and also vP to end up as the head of a functional projection (for example, the head of a focus projection in (31)) above vP.\textsuperscript{54} It is also important to note that the claims in this work pertain to the event domain of the Hungarian sentence, which corresponds to the syntactic domain dominated by vP. This domain is presumably associated with an inner aspectual functional projection. For more on this configuration, see Chapter 3.

Similarly to the verb *megszárít* ‘Prt-dry’, the degree achievement verbs below are also morphologically complex if the sentence receives a telic interpretation. (See also the verbs of killing in Chapter 5.)

\begin{quote}
(33) a. Ildi ki-egyenesített egy kötelet.
\hspace{1cm} Ildi Prt-straightened  a  rope.Acc
\hspace{1cm} ‘Ildi straightened a rope.’

\hspace{1cm} b. Anna fel-melegített egy tányért.
\hspace{1cm} Anna Prt-warmed  a  plate.Acc
\hspace{1cm} ‘Anna warmed a plate.’ (telic)

\hspace{1cm} c. Enikő fel-idegesített egy tanárt.
\hspace{1cm} Enikő Prt-nervous.Caus.Pst  a   teacher.Acc
\hspace{1cm} ‘Enikő made a teacher nervous.’
\end{quote}

It is important to note that although the verbs in the examples above lexicalize a result state (notice that they are all derived from an adjective (*egyenes* ‘straight’, *meleg* ‘warm’, or *ideges* ‘nervous’) that expresses the result state of the referent of the theme participant), a verbal particle is necessary for a telic interpretation (Kardos 2012, 2016). This is shown below:

\begin{quote}
(34) a. Enikő egy óráig/*egy óra alatt idegesített egy tanárt.
\hspace{1cm} Enikő an hour.for/an hour under nervous.Caus.Pst  a   teacher.Acc
\hspace{1cm} ‘Enikő annoyed a teacher for an hour.’

\hspace{1cm} b. Enikő *egy óráig/*egy óra alatt fel-idegesített egy tanárt.
\hspace{1cm} Enikő an hour.for/an hour under Prt-nervous.Caus.Pst a   teacher.Acc
\hspace{1cm} ‘Enikő made a teacher lose their temper in an hour.’
\end{quote}

As illustrated in (34), for the reading that a teacher ended up in a nervous state at the culmination of the denoted event to become available, the particle *fel* must appear in the sentence. This is what characterizes the examples in (33a) and (33b), as well. In other words, the encoding of an endpoint and that of a result state go hand in hand in Hungarian when it comes to examples like *kiegyenesít* ‘Prt-straighten’, *felmelegít* ‘Prt-warm’ and *felidegesít* ‘Prt-make somebody lose their temper’. By contrast, Rappaport and Levin (2010: 26–27) stress that endpoints and result states are independent notions when it comes to verbs like *straighten*, *warm* and *cool*. The sentences below, which both contain the result verb *cool*, illustrate this.

\begin{quote}
(35) a. The chemist cooled the solution for three minutes.

\hspace{1cm} b. The chemist cooled the solution in three minutes; it was now at the desired temperature.
\end{quote}

\hspace{1cm} (Rappaport Hovav and Levin 2010, 27)

\textsuperscript{54} For arguments for and against this assumption, see É. Kiss (2002) and the references therein.
The degree achievement cool the solution can receive a telic or atelic interpretation depending on the availability of specific contextual factors or the lack thereof. If the temperature of the solution can be indentified based on contextual cues, a telic interpretation becomes available. Otherwise, atelicity obtains, in which case the sentence expresses that the solution underwent some change without attaining a specific final state.

The first sentence in (36) also shows that the Hungarian counterparts of English simple result verbs like enter and exit (also discussed in Rappaport Hovav and Levin 2010: 31), which both lexicalize the attainment of a result state (i.e. a goal), are also morphologically complex particle verbs. Similarly to English, Spanish, whose verbs often encode results as discussed in the previous chapter, also has a morphologically simple verb expressing entering events.

(36) a. Az üveg be-úszott a barlangba.
    the bottle Prt-swam the cave.into
    ‘The bottle entered the cave.’

b. The bottle entered the cave.

c. La botella entró a la cueva.
    the bottle entered at the cave
    ‘The bottle entered the cave.’

(adapted from Talmy 1985: 69)

While in the Hungarian sentence it is the particle be that is responsible for the meaning that the bottle has reached a goal point, which is further specified by the PP a barlangba ‘into the cave’, in the English and Spanish counterparts of this sentence it is the verb stem in entered and entró that lexicalizes a goal point and also the attainment of this goal point. For more on these predicates, see Chapter 4.

In the remainder of this section I also aim to briefly address why verb stems in Hungarian verbs like kisúrol ‘Prt-‐scrub’, kimos ‘Prt-‐wash’ and bemegy ‘Prt-‐go’ encode the manner of the denoted activity or a result state, whereas the attainment of this result state is expressed by a particle preceding the stem. I propose based on the discussion in Chapter 5 that the syntactic behavior of elements in the event domain such as verbal particles is driven by scopal factors, similarly to that of quantifiers, adverbs and adverbial adjuncts. An important claim is that the position of telicizing particles, which is presumably the specifier of AspP between VP and vP (cf. Chapter 3), shows explicitly where these event-maximizing elements scope over their domain.

If we assume that the structure of the event domain is determined by scopal factors, we can predict that, similarly to verbal particles, event-maximizing resultative expressions also cannot be complements after the verb in neutral sentences without a particle, unlike their counterparts in English-like languages (for examples, see also Chapter 5). This is further illustrated below:

(37) a. *Dani vágta a tészát csíkokra.
    Dani cut the pasta.Acc stripes.Sub
    ‘Dani cut the pasta into stripes.’

b. Dani csíkokra vágta a tészát.
    Dani stripes.Sub cut the pasta.Acc
    ‘Dani cut the pasta into stripes.’

Another consequence of the syntactic constraint characterizing the expression of endpoints is that examples such as that in (37b) can only be interpreted repetitively in the presence of the adverb újra ‘again’. Consider (38) from Surányi and Hegedüs (2013).
Context: The pasta I bought was cut into stripes and frozen. I reheated the frozen pasta, made balls out of the stripes, kneaded them until they were flat and

a. *óvatosan csíkokra vágtam újra.
carefully stripes/Sub cut.I again

b. *újra óvatosan csíkokra vágtam.
again carefully stripes/Sub cut.I

(Surányi and Hegedűs 2013, (8))

The result predicate csíkokra ‘into stripes’ may remain in a postverbal position in the environment of the particle verb fel-vág ‘Prt-cut’, as shown in (39).

(39) Fel-vágtam a tésztát csíkokra.
Prt-cut.I the pasta.Acc stripes/Sub ‘I cut the pasta into stripes.’

(Surányi and Hegedűs 2013, (9a))

In this case the sentence also receives a restitutive reading in addition to the repetitive one. Consider (40), which can serve as a possible continuation of the second sentence in the contextual description in (38).

(40) Óvatosan felvágtam újra csíkokra.
carefully Prt-cut.I again stripes/Sub ‘I carefully cut it into stripes again.’

(Surányi and Hegedűs 2013, (12a))

Assuming the analysis proposed in Chapter 3, we can represent the adverb újra ‘again’ in the sentence János felvágtat a tésztát újra csíkokra ‘János cut the pasta into stripes again’ as in (41), when the latter receives a restitutive reading.

(41) [vP János [AspP fel [Asp’ Asp [vP a tésztát [v’ vágta [RP újra csíkokra]]]]]]

The structure in (41), which does not represent the final position of the particle and that of the verb after movement, the adverb újra ‘again’ modifies the result state expressed by the predicate csíkokra ‘into stripes’ and so the reading that the pasta ended up in a state in which it was cut into stripes again becomes available.

Overall, then, it seems plausible that the structure of the Hungarian vP is driven by scopal considerations, similarly to quantifiers and adverbs in the functional domain above vP (É. Kiss 1984, 2009). Thus, event-maximizing particles and result predicates, which are responsible for the meaning that a new result state obtains, exert their event structural effects outside verb stems, whereas verb stems typically describe the manner of the activity that they encode. It is also possible that the verb stem lexicalizes a result state, but the sentence also contains a particle or resultative expression responsible for the attainment of this result state.

6.4 Conclusion

In this chapter I have discussed a recent lexical semantic hypothesis, according to which meanings in verbal roots are constrained in specific ways. To contribute to the literature on
this, I attempted to show that Hungarian roots are typically characterized by a single ontological category: Most verbs lexicalize a manner root and the bounded nature of the predicate is due to a constituent outside the verb stem encoding this root. This applies to the verb *felsúrol* ‘Prt-scrub’. In other cases, it is also possible that the verb stem encodes a result state and there is also a particle attached to the stem responsible for the attainment of this state. The verb *felmelegít* ‘Prt-warm’ illustrates this. An important claim in the chapter has been that these patterns are motivated by scopal factors: In Hungarian event-maximizing elements such as particles like *meg* and result predicates, responsible for telic event interpretations, scope over their domain from a VP-external position in Spec, AspP between VP and vP. Therefore, the semantics and syntax of Hungarian result-denoting expressions are significantly different from those of their English counterparts, which are not associated with event-maximalization, but describe result states in a complement position in VP. As also discussed in Chapter 5, contra prior claims, event lexicalization in Hungarian is thus quite different from English despite the fact that result states are typically encoded outside verb stems, as in English. It is up to future research to show whether there are other languages with Hungarian-type event-maximizing elements and, if so, the question is how the presence of these elements determines how verb meanings are constrained. The first question is also the topic of the next chapter, which is aimed at providing a cross-linguistic view of some of the phenomena discussed so far in the thesis.
Part III  Recent findings on (non-)culmination phenomena
7 The grammar of accomplishments

7.1 Introduction

In this final content chapter, I aim to approach predicates associated with an endpoint, which I call accomplishments here, from a cross-linguistic perspective. The main goal is to provide an overview of the various partitive and non-partitive interpretations that sentences containing such predicates allow across languages. Questions of structural representation regarding these interpretations are also a central theme in the chapter. In line with much recent work on partitive interpretations (see, for example, the works of Beavers and Lee (2020) and Martin and Demirdache (2020)), accomplishments are generally understood here as caused change-of-state predicates such as break a vase, burn a book, and clean the kitchen. An important upshot of the discussion is that there is a need for more nuanced distinctions between members of the class of accomplishment predicates in light of empirical findings across languages regarding (im)possible aspectual interpretations. It is also important for this chapter to show how the facts of Hungarian discussed so far fit into a larger pool of empirical data from a variety of other languages.

The chapter is structured as follows: In Section 7.2 I discuss recent typologies of accomplishment readings and various strategies that languages use to encode maximal versus non-maximal events. Next, in Section 7.3 I overview some key questions scholars have investigated regarding event culmination by focusing on scalar analyses of the aspectual properties of verbal predicates built on work by Hay et al. (1999), Kennedy (2007) and Kennedy and Levin (2008), a modal account of non-culmination, and recent theories by Altshuler (2014) and Nadathur and Filip (2021) using maximality operators in the analysis of event culmination or the lack thereof. Section 7.4 is concerned with the structural representation of maximal versus non-maximal events. In Section 7.5 I conclude by reflecting on further ways in which languages differ regarding the expression of accomplishments and by offering some discussion of questions for future research.

7.2. Non-culmination versus (non-)maximal readings of accomplishments

7.2.1 Non-culmination readings

Contrary to much prior literature, accomplishment predicates have in recent years been reported to be associated with both culminating and partitive/non-culminating construals within and across languages (Bar-el 2005; Bar-el et al. 2005; Soh and Kuo 2005; Tatevosov 2008; Travis 2010, Altshuler 2014; Martin and Schäfer 2017; Martin 2019; Beavers and Lee 2020; Martin and Demirdache 2020, Martin et al. 2023). As mentioned by Martin and Demirdache (2020: 1196), one might find this surprising since non-progressive sentences with a telic predicate *P* typically express events which are complete with regard to *P*. These authors argue that, unlike accomplishments like that in John crossed the street, which entails that a complete crossing-the-street event is performed by John, accomplishments with non-
culmination construals may also be used to express only part of a P-event. The sentence in (1) from Mandarin Chinese serves as an example.

(1) **Mandarin Chinese** (Martin and Demirdache 2020: 1204, (19a))

Lùlu shāo le yī-bēn shū, kěshǐ shū méi
Lulu burn Pfv one-Cl book but book Neg.Pfv

Literally: ‘Lulu burned a book, but the book didn’t burn completely.’

The events described by predicates like Mandarin shāo ‘burn’ in (1) do not culminate with respect to a result property encoded in the verbal predicate, as shown by the felicity of (1). Similar examples have been shown to be available in a number of languages including Hindi, Karachay-Balkar, Korean, Malagasy, Russian, various Salish languages and Tagalog. For a fuller list of references, see Martin (2019) and Martin and Demirdache (2020). The data below from Hindi and Russian further illustrate non-culminating accomplishments, though they are slightly different from (1).

(2) **Hindi** (Arunachalam and Kothari 2010: 1)

maayaa-ne biskuT-ko khaa-yaa par use puuraa nahiin
Maya-Erg cookie-Acc eat-Pfv but it.Acc finish not
khaa-yaa eat-Pfv

‘Maya ate the cookie, but did not finish eating it.’

(3) **Russian** (Altshuler 2014: 737, (6) and (7))

   I read.up-yva-Pst last lines letter
   ‘I (have) read the last lines of the letter.’

b. … xotja ne do-čita-l ix do konca.
   even.though not read.up-Pst them until end
   ‘… even though I did not finish it.’

According to Martin and Demirdache (2020: 1204), while in the case of (1) a minimal change in the referent of the theme makes the sentence true, i.e. a partial-change reading is available, examples like (2) and (3) “allow non-culminating construals relative to a manner property” (Martin and Demirdache 2020: 1211). These authors further argue that the difference between various interpretations of accomplishments may be rooted in the different event structures that characterize these predicates. For instance, they distinguish between predicates like English clean, burn and kill, on the one hand, and read and eat, on the other. The former are generally associated with a complex event structure consisting of a causing activity and a result state (Dowty 1979), whereas the latter are argued by scholars like Levin (2000), Rappaport Hovav (2008) and Martin and Demirdache (2020) to have a simple event structure. The following evidence is provided by Martin and Demirdache (2020) for this contrast:

(4) a. Paul completely cleaned the whole kitchen.
   b. Paul completely read the whole book.

(Martin and Demirdache 2020: 1211, (28))

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57 This is a contentious issue. For a complex-event analysis of consumption predicates like eat, see Krejci (2012).
The sentences above differ in that the maximizer *whole* is not redundant in (4a), whereas it is redundant in (4b). The authors take these facts to support, on the one hand, the hypothesis that the predicate in (4a) is characterized by a complex event structure and the adverb *completely* applies to the result state of cleanliness, whereas the maximizer *whole* modifies the internal argument. Thus, no redundancy arises. On the other hand, the redundancy in (4b) can be explained if we assume that *read the book* has a simple event structure without a result state component. In this example, *read the whole book* expresses a complete book-reading event where the internal argument measures out the event of the verb. Thus, the adverbial *completely* is superfluous in the sentence containing this predicate.

Next, Mandarin *shāo* ‘burn’ is also compatible with another non-culmination construal, as shown in (5) below.

(5) **Mandarin Chinese** (Martin et al. 2021)

Mòmo shāo le tā-de shū, dàn méi shāo zháo
Momo burn Pfv 3Sg-De book but Neg.Pfv burn ignite
Literally: ‘Momo burned her book, but it didn’t get burnt at all.’

As evidenced by the translation of (5), Mandarin *shāo* ‘burn’ is compatible with a state of affairs in which the referent of the theme does not undergo any change in the course of the burning event. Martin et al. (2021; 2023) capture what they call a zero-change construal of the predicate in (5) by arguing that verbs like *shāo* ‘burn’ are associated with an argument that they refer to as a degree of event realization *de*. They distinguish this argument from Kennedy and Levin’s (2008) degree of change *dc*, which is aimed at capturing the change that the referent of the theme of a degree achievement verb undergoes in the course of the event denoted by the verb. The truth conditions of (5) are already satisfied if “the event is realized to a positive degree” (Martin et al. 2021) without any change happening to the referent of the theme. By contrast, English *burn* expresses situations in which the theme undergoes a change by burning. Therefore, the English counterpart of (5) is infelicitous. See also Section 7.2 for more on degree-based analyses of degree achievements.

Martin and Demirdache (2020: 1203) also stress that non-culmination is not to be confused with non-maximal construals of predicates like *clean the kitchen*. Consider (6).

(6) Paul cleaned the kitchen in half an hour, although it is not completely clean yet.
(Martin and Demirdache 2020: 1203, (16b))

Unlike non-culminating accomplishments, the example in (6) entails culmination, albeit only relative to a coarse-grained (less precise) granularity level (see also Section 7.2 for more on this). What is negated in the second clause of the sentence is that the kitchen ended up in a maximally clean state at the end of the event denoted by the verbal predicate in the first clause. That *clean the kitchen* necessarily involves culmination is evidenced by the fact that culmination with this predicate cannot be canceled.

(7) Paul cleaned the kitchen, #but he hasn’t finished cleaning it.
(Martin and Demirdache 2020: 1203, (17))

As is clear from (7), *clean the kitchen* is different from predicates associated with non-culminating construals such as those in (2) and (3), since the former is incompatible with the continuation *but* (s)he hasn’t finished/didn’t finish (Ving) it, whereas the latter are compatible with such clauses.
Overall, then, based on a careful investigation of accomplishments in a variety of languages, Martin and Demirdache (2020: 1223) propose a novel typology of accomplishment readings with the following key properties:

(a) Accomplishments can have atelic and telic uses.  
(b) Telic uses can be partitive or non-partitive.  
(c) Non-culminating uses are partitive uses involving, for example, partial-change construals and zero-change construals, as well as relative-to-manner uses.  
(d) Non-partitive uses can be non-maximal (non-precise) or maximal (precise).

In recent years, non-culminating uses have been the topic of numerous works clearly signaling that the grammar of accomplishment predicates is far from being fully explored. In the remainder of this section, I will refrain from further discussing non-culmination and instead focus on non-partitive, maximal and non-maximal interpretations of accomplishment predicates. Then, I devote Section 7.3 to a brief characterization of some basic questions about (non-)culmination and some possible answers to these questions from the past two decades or so. In Section 7.4, I also review key issues regarding the syntactic representation of (non-)maximal readings of accomplishments and, again, reflect on how these issues have been dealt with in the literature.

7.2.2 (Non-)maximal readings

Whereas Martin and Demirdache (2020) focus on partitive, non-culminating interpretations, Martínez Vera (2021) examines non-partitive interpretations, with a special focus on degree achievements (a type of accomplishments according to Piñón 2008b). The central claim here is that non-partitive, maximal or non-maximal interpretations arise thanks to different marking strategies that languages use in the domains of degrees and events. A four-way descriptive typology is proposed with the four language types differing as to whether they overtly mark degree or event maximalization. Degree maximalization occurs when the scale associated with a degree achievement is bounded in an eventuality. By contrast, event maximalization induced by the maximalization operator $\text{MAX}_E$ gives rise to the effect that unique maximal events are picked out in the denotation of verbal predicates at a given situation, as originally proposed by Filip and Rothstein (2005) and Filip (2008). A recent characterization of $\text{MAX}_E$ is provided by Filip (2023) as follows:

\[ \text{The maximalization operator } \text{MAX}_e \text{ is a monadic operator, such that } \text{MAX}_e(P) \subseteq P \text{ which maps sets of partially ordered stages of an eventuality type } P \text{ onto sets of its maximal stages } \text{MAX}_e(P). \text{ The maximal stage requirement is satisfied when a } P\text{-eventuality ceases to develop in a world at the reference time } t_R \text{, and there is no bigger } P\text{-eventuality in the world at } t_R \text{ of which it is a stage.} \]

(Filip 2023: 12, (31))

As shown in Section 7.3, the idea that aspectual composition involves a maximalization operator has been put to use in multiple works recently including Altshuler (2014) and Nadathur and Filip (2021). Before I provide an overview of key insights in these works and some others regarding (non)-culmination, in what follows, I briefly discuss the different maximalization strategies (or the lack thereof) that are observable in the four language types, English, Hungarian, Southern Aymara and Polish, identified by Martínez Vera (2021).
The English strategy

English illustrates languages in which event and degree maximalization are not marked but left open; a lot depends on contextual cues when it comes to the availability of maximal and telic interpretations. This is perhaps best illustrated by degree achievement verbs such as *cool* in the sentences below discussed by Hay et al. (1999), which is a precursor to Martín ez Vera’s (2021) work.

(10)  a. John cooled the soup for an hour.
     b. John cooled the soup in an hour.

Hay et al. (1999) argue that predicates like *cool* or *lengthen* express scalar changes by virtue of being derived from a gradable adjective and by introducing a function INCREASE, which is encoded by a null morpheme in verbs like *cool* and the suffix -*en* in verbs like *lengthen*, as in (11a) and (11b).

(11)  a. Kim lengthened the rope.
     b. Kim lengthened the rope 5 inches.

(Hay et al. 1999: 130, (8a) and (8b))

The logical representations that the authors propose for (11a) and (11b) are given below.

(12)  a. $\exists e, d[[\text{INCREASE} (\text{long}(\text{rope}))(d)(e)]$
     b. $\exists e[[\text{INCREASE} (\text{long}(\text{rope}))(5 \text{ inches})(e)]$

(Hay et al. 1999: 132, (17))

In (12a) difference value $d$ represents the measure of the amount to which the referent of the internal argument of the verb changes in the course of the lengthening eventuality. The (a)telicity of the string *lengthen the rope* depends on whether there is a specific bound contributed by the difference value on the measure of change associated with the theme argument (Hay et al. 1999: 130). If the difference value provides the measure of change with a specific bound, telicity arises, as in (12b), where the measure phrase *5 inches* ensures that the difference value be explicit. Otherwise, atelicity obtains, as in (12a). As further stressed by the authors, that the analysis does not resort to ambiguity in verbs like *cool* in (10) is a welcome result given that “there is no independent evidence for a systematic ambiguity in these verbs” (Hay et al. 1999: 132-133).

The role of context in the semantics of degree achievements is also at the center of attention in Kennedy (2007) and Kennedy and Levin (2008), who argue that the interpretation of these predicates is constrained by a principle they call ‘Interpretive Economy’ given in (13).

(13) **Interpretive Economy**: Maximize the contribution of the conventional meanings of the elements of a sentence to the computation of its truth conditions.

    (Kennedy and Levin 2008: 169, (18))

The principle above is put to work in different ways depending on whether degree achievements are associated with a top-closed or top-open scale. For instance, with predicates like *straighten the rod*, which have been argued to lexically encode a top-closed scale (*ibid.*), the default interpretation is that the rod ends up in the state of maximum straightness and thus a maximal construal arises. However, given certain contextual conditions, this predicate may
also express that the rod ends up straighter, in which case a non-maximal construal becomes available. Context-dependent truth conditions are possible, but arise as a ‘last resort’.

Building on Sassoon and Zevakhina (2012), Martin and Demirdache (2020: 1203) also discuss a similar kind of flexibility illustrated by clean the kitchen and argue that non-maximal construals of this and other similar predicates are due to granularity shifting. Unmodified adjectives like clean are interpreted relative to a coarse granularity level $g$, whereas modified adjectives like completely clean are interpreted relative to a fine granularity level $g_p$. Non-maximal construals of clean the kitchen-type predicates involving completely give rise to a shift from coarse granularity level $g$ to a more precise granularity level $g_p$.

With predicates like widen the road, by contrast, contextual factors must be considered when determining how much of the measured property is enough to stand out for the truth of the predication. Nothing in the meaning of the adjective underlying widen allows the listener to fix the standard of comparison (Kennedy and Levin 2008: 177). When uttered out-of-the-blue, widen the road is atelic, but given specific contextual cues, a telic interpretation may also arise.

As pointed out by Levin and Sells (2009: 311), aspectual variability also characterizes verbs of surface contact such as sweep and wipe in the environment of a bounded object, as in sweep/wipe the counter. When the object is understood to serve as a measuring-out object, telicity arises, whereas an atelic reading becomes available if the event of the verb is meant to occur repeatedly over the surface denoted by the object. According to Rappaport Hovav (2008), the telic interpretation of such examples along with mow the lawn and study the file is an implicature.

Another sign of flexibility in English is that the quantization properties of the theme in the environment of straighten and widen are not restricted. Themes with quantized reference (e.g. the rod, the road) or cumulative reference (e.g. rods, roads) may appear with these verbs and yield telic or atelic predicates. That internal arguments with cumulative or quantized reference give rise to different aspectual interpretations is also observable in other verb classes. For example, creation/consumption predicates headed by verbs like build and eat have long been known to inherit the referential properties of their internal argument (also referred to as an incremental theme in much prior work following Dowty 1991) in a way that themes with quantized reference make their verbal predicates quantized and thus telic, whereas themes with cumulative reference make their verbal predicates cumulative and thus atelic (Verkuyl 1972; 1993; Tenny 1994; Krifka 1989; 1992; 1998). Aspects variability in this verb class is also possible, as pointed out by Hay et al. (1999), Smollett (2005), and Piñón (2008b), among others, though less common than in the class of degree achievements. In more recent works, as briefly mentioned in Chapter 1, Beavers (2009; 2011; 2012a) uses Krifka-type semantics (see Krifka 1989; 1992; 1998) to argue that for telicity to obtain with predicates such as walk, flow and also wipe and drink, one needs to consider both the referential properties of the theme and the boundedness of the scale/path along which change occurs. On this view, it is thus not one but two incremental themes that determine aspectual interpretations by being related to the events denoted by verbal predicates by a special type of homomorphic relations, so-called figure/path relations. Kardos (2012, 2016) expands this analysis and argues for the overt instantiation of the maximalization operator $MAX_E$ of Filip and Rothstein (2005) and Filip (2008) in Hungarian, on top of Beavers’(2009; 2011; 2012a) assumptions, to account for the observed aspectual facts, also briefly discussed in the next section.

7.2.2.2 The Hungarian strategy
Hungarian is a language where the kind of flexibility seen in English is not observable with degree achievements. Consider (14).

(14) **Hungarian** (adopted from Martínez Vera 2021: exx. (34a) and (47a))

<table>
<thead>
<tr>
<th>a. János 10 perc-ig/*alatt</th>
<th>egyenes-it-ett</th>
<th>egy rud-at.</th>
</tr>
</thead>
<tbody>
<tr>
<td>János 10 min-for/under</td>
<td>straight-Caus-Pst</td>
<td>a rod-Acc</td>
</tr>
<tr>
<td>‘János spent 10 minutes straightening a rod.’</td>
<td></td>
<td></td>
</tr>
<tr>
<td>b. János 10 perc alatt/*10 perc-ig</td>
<td>ki-egyenes-it-ett</td>
<td>egy rud-at.</td>
</tr>
<tr>
<td>János 10 min under/10 min-for</td>
<td>Prt-straight-Caus-Pst</td>
<td>a rod-Acc</td>
</tr>
<tr>
<td>‘János straightened a rod in 10 minutes.’</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Unmarked forms such as that in (14a) are strictly atelic, as evidenced by the fact that they only admit *for*-adverbials, whereas marked forms associated with event-maximizing particles such as *ki* in (14b) are strictly telic. The latter only admit *in*-adverbials.

Building on Kardos (2016), Martínez Vera (2021) argues that in Hungarian event maximalization is overtly marked by particles and lexical maximal degrees are required with predicates like *ki-egyenesit* ‘Prt-straighten’. A non-maximal construal thanks to contextual cues is not possible when it comes to examples like (14b).

Lack of flexibility in Hungarian is also illustrated by the fact that the semantics of themes is also constrained in a way that they must be specific about their quantity in the environment of event-maximizing particles like *ki* and *fel*, as shown by (16). For more on this, see also Chapters 2 and 3.

(15) **Hungarian**

<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>János Prt-straight-Caus-Pst</td>
<td>rods-Acc/a rod-Acc/some rod-Acc</td>
</tr>
<tr>
<td>‘János straightened a rod/some rods.’</td>
<td></td>
</tr>
<tr>
<td>b. Enikő fel-ideges-it-ett</td>
<td>*tanárok-at/egy tanár-t/néhány tanár-t.</td>
</tr>
<tr>
<td>Enikő Prt-nervous-Caus-Pst</td>
<td>teachers-Acc/a teacher-Acc/some teacher-Acc</td>
</tr>
<tr>
<td>‘Enikő made a teacher/some teachers nervous.’</td>
<td></td>
</tr>
</tbody>
</table>

Bare plural themes like *rudakat* ‘rods’ and *tanárok* ‘teachers’ give rise to unnatural strings with the verbs *ki-egyenesét* ‘Prt-straighten’ and *fel-idegesít* ‘Prt-make somebody nervous’, whereas the themes *egy/néhány* *rudat* a ‘rod/some rods’ and *egy/néhány* *tanárt* a ‘teacher/some teachers’, which can all be characterized as quantities using Borer’s (2005) terminology by virtue of being non-homogeneous, yield grammatical structures with the same verbs (Kardos 2016). Overall, then, Hungarian is quite different from English when it comes to the encoding of (non-)maximal events, but also from Aymara and Polish, which allow some flexibility regarding the interpretation of degree achievements, though in different ways, as we will see below.

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58 Borer (2005: 147) defines the notion ‘quantity’ as follows:

(i) a. Quantity: *P* is a quantity iff *P* is not homogeneous.
   b. *P* is homogeneous iff *P* is cumulative and divisive.

(Borer 2005: 147, (39))

The properties ‘cumulative’ and ‘divisive’ are defined as follows:

(ii) a. *P* is cumulative iff \( \forall x [P(x) \land P(y) \rightarrow P(x \cup y)] \)
   b. *P* is divisive iff \( \forall x [P(x) \rightarrow \exists y (P(y) \land y < x)] \land \forall x,y [P(x) \land P(y) \land y < x \rightarrow P(x-y)] \)

Borer (2005: 147, (40))
7.2.2.3 The Aymara strategy

Aymara is argued to overtly mark degree maximalization with the suffix -su attached to verbs. Similarly to Hungarian, contextual cues tend not to play a role in determining maximal degrees if a lexical maximum is available. Consider (16) from Martínez Vera (2021).

(16) **Aymara** (Martínez Vera 2021: exx. (32a) and (35a))

a. Mariya ?*10 minutos-tha / 10 minutos uka ñikuta llusk’acha-i
Mary 10 minutes-Ab1 / 10 minutes that hair straighten-3S
‘Mary was straightening that (bunch of) hair ?*in/for 10 minutes.’

b. Mariya uka ñikuta llusk’acha-su-i, #ukatha uka ñikuta
Mary that hair straighten-su-3S but that hair
janiwa llusk’acha-ta-ka-i-ti.
not straighten-Part-Be-Neg-3S-Neg
‘Mary straightened that (bunch of) hair, #but it isn’t straight.’

The (a) example above receives a strictly atelic interpretation, as evidenced by the temporal adverbial test, whereas the (b) example is telic in the presence of the suffix -su. Unlike English, then, Aymara requires marked forms for maximal interpretations; unmarked forms cannot give rise to telicity despite the fact that information about maximal endpoints could be pragmatically available in the case of predicates with top-closed scales like that in (16).

As mentioned in the previous section, Aymara also contrasts with Hungarian in that the former allows flexibility with respect to the theme in the presence of maximation markers like -su. Consider (17).

(17) **Aymara** (Martínez Vera 2021: 12, (41a))

Mariya uka ñikuta / ñikuta-naka llusk’acha-su(-ra)-i,
Mary that hair / hair-Pl straighten-su-(Pl)-3S
‘Mary straightened that (bunch) of hair/(bunches of) hair.’

As pointed out by Martínez Vera (2021: 12), themes which are not specific about their quantity give rise to atelic predicates associated with a bounded scale in the presence of -su, whereas quantities yield telicity. This pattern allows Martínez Vera (2021) to claim that the marking element -su is a degree maximalizer, unlike Hungarian particles like *ki-* and *fel-*. The former alone does not ensure event maximality, whereas the latter do.

7.2.2.4 The Slavic strategy

Slavic languages, which are argued to overtly mark event maximalization, also exhibit some flexibility in that in the presence of event-maximizing prefixes, although lexical maximums are preferred, in line with Interpretive Economy, contextual maximums are also possible. For example, Martínez Vera (2021: 12) argues that, pending contextual cues, the Polish sentence *Marcin wyczyściła szufladę* ‘Marcin cleaned the drawer’ may or may not express that the drawer ended up completely clean. Although complete cleanliness is the preferred reading associated with this example, it is defeasible under specific contextual conditions. This is also confirmed in a recent experimental study by Kasher and Hacohen (2023), who show using a gradable acceptability judgement task that the culmination readings of Russian perfective accomplishments may be cancelable. In the experiment, native speakers of Russian had to
judge sentences used to characterize situations in which there is progression towards an endpoint, but this endpoint is never reached. Here is an example from the study:

(18) **Russian** (Kasher and Hacohen 2023: 5)

Malčik na-risováv zvezdu, no odnovo lučika ne xvatáet.

‘The boy drew a/the star, but one ray not sufficient’

As reported by Kasher and Hacohen (2023: 8), 81% of the participants found sentences like that in (18) acceptable in a similar way that they found the imperfective counterpart of the example above “possible” or “highly likely” in the characterization of the situations presented in the experiment. This indicates according to the authors that Russian is less strict regarding the cancellation of culmination readings than previously thought. The authors also liken Russian to English and argue that in examples like that in (18) it is a maximal-event interpretation that is canceled; the example in (18) is not a non-culminating accomplishment similarly to the example in (6).

No flexibility, by contrast, is shown by the semantics of themes in the environment of aspectual prefixes like wy- in Polish. As pointed out by Martínez Vera (2021: 12), the only reading that the string Marcin wyczyściła szufladę ‘Marcin cleaned the drawer’ may receive is where the theme is interpreted as a quantity. In this respect, Polish, and other Slavic languages showing this pattern, is similar to Hungarian.

In light of these two typologies alone, several questions arise that scholars have thought about in the past couple of decades. In the next section I discuss some of these questions and possible answers to them in some detail.

### 7.3 Key questions about (non-)culmination

A central question that has been extensively investigated in the literature is how it is best to represent different (non-)culmination readings associated with various accomplishment predicates. Here are a few examples of possible answers from recent years:

(i) Accomplishments such as eat plus an incremental theme have been analyzed as gradable predicates associated with various degrees of change, thereby giving rise to telicity or atelicity. See, for example, Piñón (2008b) for such an analysis. As mentioned earlier, Kennedy and Levin (2008) use degrees to account for the different (a)telic interpretations that degree achievements like straighten, cool and warm are associated with (see Section 2.1). More recently, building on this analysis, Nederveen (to appear) accounts for the different degrees of change (maximal vs. non-minimal) that various control morphemes give rise to in Secwepemctsin, an Interior Salish language. Control transitive predicates like that in (19) are characterized by defeasible culmination, though culmination is the default interpretation, whereas limited control transitive predicates have culmination entailments (20).

(19) **Secwepemctsin**

Context: Hannah worked on a new basket but is out of material. So the basket isn’t done yet.

Hannah k’ūl-en-[t]-s re mim’c, #(k’emell ta7
Hannah make-Ctr-Tr-3Erg D/C basket however Neg
k s-wi7-s)
Nederveen (to appear) argues that in examples like (20) the limited control morpheme constrains the denotation of the predicate in a way that the degree of change corresponds to a maximal degree on the scale associated with the predicate, whereas with control predicates there is no such restriction. In the case of the latter, the degree to which the referent of the theme changes maps onto a closed scale. With limited control middles and control middles, by contrast, a partial change of state is entailed or implicated in a way that the degree of change is mapped to a non-minimal scalar value in the case of the former, whereas with the latter it is mapped to an open scale. The entailed culmination and partial change of state inferences are argued to follow from the fact that with limited control (middle) predicates the degree of change is mapped to a specific maximal or non-minimal scalar value. The default culmination reading of the transitive predicates is derived by Kennedy’s (2007) and Kennedy and Levin’s (2008) principle of Interpretive Economy: Similarly to English degree achievements like straighten (see Section 7.2.2.1), a maximal construal arises with such predicates unless contextual cues dictate otherwise, in which case the culmination inference becomes defeasible.

(ii) In other works, Tatevosov (2008) and Beavers and Lee (2020) propose that a modal operator encoded by the verb or some other element is responsible for event non-culmination readings in languages such as Karachay-Balkar (a Turkic language) and Korean. As for the latter, Beavers and Lee (2020) show that Korean sentences associated with caused change-of-state predicates such as *kkay-ss-ta* in (21) may have culmination or non-culmination readings.

(21) **Korean** (Beavers and Lee 2020: 1235, (3))

```
ku-ka  changmwun-ul  kkay-ss-ta.  haciman changmwun-i
he-Nom window-Acc  break-Pst-Decl  but  window-Nom
break-Pass-Comp  Neg-Pst-Decl
```

Literally: ‘He broke the window. But it was not broken.’

The example in (21) is associated with defeasible culmination, as evidenced by the fact that the inference that the window became broken can be canceled. Non-culmination readings may correspond to zero-change or partial-change construals given specific grammatical conditions. Zero-change construals are possible if the referent of the subject “intends the result to obtain by direct causation” (Beavers and Lee 2020: 1275), whereas partial-change construals are available even in the absence of intentionality. Beavers and Lee (2020) capture these different readings by arguing that caused change-of-state predicates in Korean are ambiguous; the zero-change and partial-change readings correspond to two different derivations. The former arise due to a modal operator introduced by a null voice inflection, whereas partial-change readings arise in non-modal environments, as well. Partial-change and culmination readings are
analyzed as non-quantized change and quantized change along some scale, respectively (see Beavers 2013 for details about this distinction).

(iii) Other scholars propose a richer typology of aspectual operators yielding different culmination readings. For example, Altshuler (2014) extends the typology of partitive operators in his analysis of perfective and imperfective forms in Russian, Hindi and English. He argues that perfective operators require a maximal stage of an event in the denotation of the VP that they combine with, whereas imperfectives do not have this input requirement. Instead, the latter only require a stage of an event in the denotation of the VP they combine with. The maximal stage requirement is satisfied if “a VP-event culminates or ceases to develop in the actual world” (Altshuler 2014: 739). In Hindi, both simple and complex perfectives, shown in (22) and (23), respectively, satisfy the maximal stage requirement, but culmination is an implicature with the former and an entailment with latter. These data are also discussed in Arunachalam and Kothari (2010), as also shown in Section 7.2.1.

(22) Hindi
\[
\text{maayaa-ne biskuT-ko khaa-yaa par use puuraa}
\]
Maya-Erg cookie-Acc eat-Pfv\(_1\), but it.Acc finish
nahiin khaa-yaa
not eat-Pfv\(_1\)
‘Maya ate the cookie, but did not finish it.’

(23) Hindi
\[
\text{maayaa-ne biskuT-ko khaa li-yaa #par use puuraa}
\]
Maya-erg cookie-Acc eat take-Pfv\(_2\), but it.Acc finish
nahiin khaa-yaa
not eat-Pfv\(_1\)
‘Maya ate the cookie, #but did not finish it.’

(adopted from Altshuler 2014: 747, (32)-(33))

According to Altshuler (2014: 771), culmination implicatures arise when aspectual markers are in competition with each other in a given language. For example, in Hindi, the simple perfective may compete with the progressive, whereas in Russian the imperfective competes with the perfective. When the perfective is not possible and a culmination interpretation is necessary for the discourse to be felicitous, the imperfective may be used and a defeasible culmination inference becomes available. See Section 5 in Altshuler (2014) for more on this.

In a more recent study, by contrast, Nadathur and Filip (2021) distinguish between termination and absolute maximizers to capture the different culmination readings illustrated above. The termination maximizer associated with simple perfectives requires that eventuality \(e\) be “the largest evaluation-world development towards \(P\)’s culmination condition”, whereas the absolute maximizer of complex perfectives requires that \(e\) be “maximal in the denotation of \(P\) itself” (Nadathur and Filip 2021: 6).

Next, if maximalization is what gives rise to various (non-)culmination effects, another question pertains to the locus of maximalization operations. For example, maximalization has been argued by Filip and Rothstein (2005) and Filip (2008) to be a V-level phenomenon in Slavic languages, whereas in English it has been claimed to be applied at the level of VPs/IPs. In another study, based on the (im)possibility of the co-occurrence of the Mandarin Chinese resultative morphemes \(-\text{wán}\) and \(-\text{diào}\) with the progressive, Gu (2023) argues that the operator in the former suffix responsible for maximalization over time points applies at the VP-level,
whereas -diào associated with maximalization over patients encodes a maximalization operator that applies at the level of Vs.

A third question is whether maximalization is overtly or covertly encoded in verbal expressions. Filip (2000) argues, for instance, that quantificational prefixes in Slavic languages are not direct markers of perfectivity since they can easily co-occur with imperfective morphology when it comes to the formation of secondary imperfectives. Later, Filip (2008) reformulates this idea by claiming that event maximalization occurs covertly in Slavic languages; perfective prefixes are not overt instantiations of the maximalization operator $MAX_E$. It is also argued that $MAX_E$ is a covert operator in Germanic languages, as well; its application cannot be systematically linked to the direct object or some overt morphology associated with the direct object.

Borer (2005: 172) provides a different analysis of Slavic prefixes. She argues that quantificational prefixes are markers of telicity, or ‘quantity’ in her terminology. More specifically, such prefixes are proposed here to be phonological realizations of the head feature that assigns range to an open functional value, thereby giving rise to quantity structures. Borer (ibid.) further claims that this is plausible if it is assumed that secondary imperfectives illustrate a type of outer aspect (i.e. they do not mark aktionsart). According to this author, perfectivity is to be contrasted with primary imperfectivity. On this analysis, direct objects also have a central role in deriving telic interpretations in English-type languages, as the subsequent discussion reveals.

Finally, Kardos (2016) also argues for the overt expression of $MAX_E$ in Hungarian verbal particles like meg and also resultative predicates like pirostra ‘lit. into red’ in expressions like pirostra fest egy kerítést ‘paint a fence red’. Such aspectual elements are shown in this work to have a clear truth conditional effect such that the verbal predicate receives quantized reference and entailed culmination arises, and they also structure the VP in specific ways.

7.4 Questions about the syntax of (non-)maximal events

Syntactic analyses have traditionally, though not exclusively, focused on maximal, telic features of accomplishments. Scholars like Ritter and Rosen (1998; 2000), Borer (2005), Thompson (2006), MacDonald (2008a, b, 2023a, b), Ramchand (2008) and Travis (2010) share the view that telic interpretations are directly tied to a functional projection. Telicity on these analyses is a property of syntactic structures. A central argument for the syntactic representation of telicity lies in the clear interaction between specific properties of the object and the telicity of the resulting predicate, as observable across languages (see also Kratzer 2004). A language often mentioned in the literature in this connection is Finnish, where direct objects receive accusative case in telic eventive predicates, whereas in atelic eventive predicates they receive partitive case (Kiparsky 1998). See, however, MacDonald (2008b), who takes issue with this argument by claiming that aspect and case are only indirectly related in light of the fact that “a predicate can be telic without accusative case and accusative case can be present without a predicate being telic” (MacDonald 2008b: 174). For example, derived subjects of passives and unaccusatives may induce a telic interpretation without being assigned accusative case, as in The bottle of beer was drunk and The bottle broke, whereas accusative case is accompanied by atelicity in the case of statives like own a T.V. and know the answer (MacDonald 2008b: 172-174). See also Chapter 3 for the claim that in Hungarian the presence of AspP ensures that the theme receives accusative case in examples like el-olvasott egy könyvet/*könyvből ‘Prt-read a book.Acc/* book.Ela’ (cp. olvasott egy könyvet/könyvből ‘read a book.Acc/book.Ela’), but accusative case does not ensure the presence of AspP, as illustrated
by examples like atelic hámozta a krumplit ‘lit. peeled the potato.Acc’ and értette a feladatot ‘lit. understood the task.Acc’.

A key question in works such as Thompson (2006), MacDonald (2008a; b) and Travis (2010) is (i) where exactly the functional projection responsible for telicity is located. Related to this are the questions of (ii) what the domain of aspectual interpretation is and (iii) what specific syntactic operation is responsible for the observed aspectual effects. Thompson (2006) argues that AspP is located directly above vP, whereas MacDonald (2008a; b) and Travis (2010) argue for AspP sandwiched between vP and VP. MacDonald (2008a) discusses scope effects associated with time span adverbials and durative phrases to argue for his analysis and against Thompson’s (2006), whereas Travis (2010) examines morpheme order in Tagalog reduplication, among some other phenomena, to argue for the presence and position of AspP. As for the former, first, it is shown that time span adverbials such as in thirty seconds are interpreted within the scope of durative adverbials like for an hour. Consider (24).

(24) John carried a goat into the barn in thirty seconds (for an hour straight).  
(MacDonald 2008a: 131, (5a))

The only reading that is available in (24) is that carrying a goat into the barn took John thirty seconds each time he did that and this activity occurred for an hour straight. This can be taken as evidence for the claim that the time span adverbial is within the scope of the durative adverbial. Thus, the former can be assumed to be structurally lower than the latter, contra Thompson’s (2006) proposal. Second, MacDonald (2008a) also examines bare plurals and mass nouns with verbal predicates headed by verbs such as carry and push and concludes that they yield different aspectual interpretations, as shown below.

(25) a. John carried goats into the barn in ten minutes (for an hour straight).  
   b. John pushed carts into the store in three minutes (for an hour straight).
(26) a. John carried mud into the barn #in ten minutes (for an hour straight).  
   b. John pushed ice into the store #in ten minutes (for an hour straight).  
(MacDonald 2008a: exx. (12) and (13))

In (25a) and (25b) a sequence-of-similar-events interpretation is available with bare plurals as internal arguments in the sentence. This means that, for example, sentence (25a) expresses a situation in which it took John ten minutes to take a goat into the barn and then it took John another ten minutes to take another goat into the barn, and this activity occurred for an hour straight. Likewise, (25b) can be described in a similar manner. By contrast, this reading is not possible with mass nouns like mud and ice in (26a) and (26b). The internal arguments give rise to atelic interpretations, as evidenced by the incompatibility of the time span adverbial with the verbal predicates in (26a) and (26b). To account for these interpretive facts, MacDonald proposes that bare plurals and mass nouns establish different aspectual relations with AspP between vP and VP in a way that the former move to Spec, AspP, whereas the latter enter into an Agree relation with the Asp head. That bare plurals and mass nouns have different aspectual effects is also shown when they occur as complements of goal Ps. It is not clear, as pointed out by MacDonald, how one can account for these facts on an analysis where AspP sits on top of vP, as in Thompson (2006).

A testable hypothesis in the works referred to above is that there is a syntactic domain in which elements may contribute to the aspectual interpretation of the verbal predicate. Elements outside this domain do not affect the aspectual make-up of predicates. On MacDonald’s (2008a, b, 2023a, b) analysis, for example, telic interpretations are expected to arise due to Asp and
elements dominated by AspP (see, for example, direct object NPs and goal/result XPs), whereas elements such as external arguments and location PPs are predicted not to contribute to the aspectual interpretation of the predicate. See also Travis (2010) for a similar view.

As for the specific operation that is directly responsible for the existence of telic structures, scholars such as Thompson (2006) have argued for some feature checking operation, whereas Borer (2005) argues for range assignment, where, for example, the quantity value of an object nominal is copied onto a head that is attached to in a specific syntactic configuration, specifier-head agreement. This characterizes the structures associated with *eat some/two apples* in English. Range assignment associated with AspQ, where Q is short for quantity, gives rise to quantity predicates such that they are compatible with both intermediate culmination readings and culmination that corresponds to the end of the event. As noted by Borer (2005: 143), the significance of this distinction is often obscured by the fact that telicity is often equated with the notion ‘endpoint’. But telic predicates do not necessarily express situations associated with an endpoint or prominent result state, as illustrated now by empirical data from a variety of different languages. See also MacDonald (2008b: 74) for an analysis where “there is no resultant state necessarily tied to the end of the event”.

The aspectual effects of elements such as direct objects, result XPs and verbal particles have been shown to vary across languages and various syntactic analyses have been proposed to capture these differences. There is a lot of previous research on cross-linguistic variation with respect to the aspectual influence of direct object NPs in English versus Slavic languages such as Russian and Czech (Filip 1999; 2000), English versus Malagasy (Travis 2010), and significant differences arise between English and Hungarian, as well (Kardos 2016; 2019). For example, change-of-state predicates such as Hungarian *fest egy kerítést* ‘paint a fence’ are atelic regardless of whether they involve quantities.

(27) **Hungarian**
Sára *egy nap alatt/egy nap-ig  festett egy kerítést.
Sára a day under/a day-for painted a  fence.Acc
‘Sára painted a fence for a day.’

In English, by contrast, quantities such as *a fence* in the environment of verbs like *paint* can easily measure out events and yield telic predicates.

(28) Sara painted a fence in a day.

For telicity to obtain in Hungarian in the case of predicates like that in (27), a verbal particle or result predicate must appear in the sentence, as in (29). See also É. Kiss (2008a).

(29) **Hungarian**
Sára egy nap alatt le-festett/pirosra festett egy kerítést.
Sára a day under Prt-painted/red.Sub painted a  fence.Acc
‘Sára painted a fence/painted a fence red in a day.’

Slavic languages also show a similar behaviour, as has been pointed out by numerous scholars including, for example, Slabakova (2004) and Filip (2008). Here I illustrate this with the Polish examples from Filip (2008).

(30) a. *On jadł kaszę/ olívki.*
he.Nom ate porridge.Sg.Acc olives.Pl.Acc
i. He was eating (some/∅/the) porridge/olives.

‘He was eating some of the porridge/olives.’

ii. He ate (some/∅/the) porridge/olives.

b. On zjadł kaszę/oliwki.

‘He ate (up) (all) the porridge/olives.’

(Filip 2008: 250, (38b) and (38a))

What is of interest regarding the data above is that the example in (30b), which contains a perfective verb and a theme expressed by a bare noun, can only be interpreted with specific reference with respect to the theme. The event description in (b) is also obligatorily telic. By contrast, specificity of the theme is not required in (30a), where the sentence contains an imperfective verb, and telicity here is only an implicature as it can be cancelled. As noted by Filip (2008: 251), the interpretation of the theme is contingent on contextual factors.

English particles like up do not have such effects, as illustrated in (31).

(31) We ate up sandwiches (for hours/all afternoon/*in three hours).

(Borer 2005: 211, (56a))

Unlike in Hungarian, English bare plural themes are compatible with particle verbs and the resulting predicate is atelic, as shown by the adverbial test.

To capture these and other differences across languages, scholars have argued for different positions in the aspectual domain that languages use to express event culmination. For example, certain aspectual morphemes in Malagasy have been argued to occupy Asp (Travis 2010), whereas Hungarian aspectual particles and result predicates responsible for maximal-event interpretations and also pseudo-objects like egyet ‘one.Acc’ giving rise to non-maximal events have been shown to exert their aspectual functions in Spec, AspP between vP and VP. Also, although telic, the event descriptions of predicates with egyet ‘one.Acc’ are not characterizable by a specific result state that obtains when the event culminates. Consider (35) from Chapter 3, repeated here as (32).

(32) Hungarian

A diák futott egyet anélkül, hogy elért volna valahova.

the student ran one.Acc without, that reached would somewhere

‘The student went for a run without getting anywhere.’

In (32), the continuation that no specific goal point has been reached in the course of the running eventuality is congruous with the predicate futott egyet ‘lit. ran one.Acc’. This shows that the notions ‘telicity/event culmination’ and ‘result state’ seem to be independent of each other, as also pointed out by Rappaport Hovav and Levin (2010) in their discussion of the aspectual facts of English degree achievements like cool and warm. See also the next section for more details on this.

Measuring-out direct objects like a fence in paint a fence or the beer in drink the beer have been argued to Move to Spec, AspP (Thompson 2006) or Agree with Asp (MacDonald 2008b) from their VP-internal position. The standard assumption regarding the syntax of secondary resultative predicates like red in paint the fence red has been that they appear as complements in the VP, both on analyses assuming an aspectual functional projection and small-clause
analyses (Hoekstra 1988; Den Dikken 1995). Verbal particles like English *up* have been represented as ergative heads by Den Dikken (1995), and as predicates “of a small clause in the complement of the verb, predicated of the Theme” occupying either the complement or the specifier position in a RELATOR phrase (Den Dikken 2023). As argued by Den Dikken (*ibid.*), the former analysis can capture facts of complex verb–particle constructions like *put the book down on the shelf*, whereas the latter can handle word order variation facts such as *eat an/the apple up* and *eat up an/the apple*. For more on the RELATOR phrase analysis, see Den Dikken (2006).

Finally, Borer (2005) argues for indirect and direct range assignment to capture cross-linguistic differences with respect to how telic/quantity structures come about. English is argued to primarily use the first strategy in the verbal domain, where quantity object DPs assign range to open functional values, whereas Slavic languages use the second strategy in a way that quantificational prefixes serve as direct range assigners.

### 7.5 Conclusion

What arises from this final survey is that there is a considerable amount of variation regarding the interpretive properties of accomplishment predicates within and across languages and the strategies that languages use to encode accomplishments are also varied. Although culmination is the default interpretation with accomplishment predicates in many languages (Altshuler 2014, Beavers and Lee 2020), non-culmination readings are also often available, sometimes contingent on specific conditions such as intentionality on the part of the subject, as in Korean.

In languages such as English, culmination with predicates like *clean the kitchen* is entailed, whereas in Hungarian it is the presence of telicizing verbal particles or that of result predicates that ensures this property with such predicates. Perfective prefixes in Slavic languages such as Polish and Russian have a slightly different aspectual effect. Contra much previous literature, event maximality seems to be cancelable in the presence of prefixes like Polish *wy-* in examples like *Marcin wyczyściła szufladę* ‘Marcin cleaned the drawer’. What Hungarian and Slavic languages seem to share, however, is that a culmination interpretation is not available in the absence of verbal particles or perfective prefixes with predicates corresponding to English *clean the kitchen/drawer*.

Accomplishments within and across languages may also differ in how event culmination and the theme participant’s attainment of a specific result state correlate with each other. For example, in Hungarian, entailed event culmination is not necessarily accompanied by a result state that obtains at the termination of events in the denotation of VPs, as discussed in Section 7.4 and further shown in (33).

(33) **Hungarian**

János *ki-takarított egy kádat, de a kád nem változott semmit.

Prt-cleaned a tub.Acc, but the tub not changed nothing.Acc

LITERALLY: ‘János cleaned the tub, but nothing is different about it.’

As the test taken from Beavers and Koontz-Garboden (2020) shows, the predicate *ki-takarított egy kádat* ‘Prt-cleaned a tub’ containing event-maximizing *ki-* is compatible with the cancellation of the inference that the tub remained intact in the course of the cleaning eventuality. The English counterpart of this example is infelicitous. However, English can also be used to illustrate that result states and event culmination do not always co-occur. Rappaport
Hovav and Levin (2010: 27), for example, explicitly argue that English result verbs such as *cool* and *warm* are not lexically telic and so they show that at least “some instances of telicity cannot be analyzed in terms of a result state”. There are several questions left for future research: One is how event structural representations of caused change-of-state predicates are affected by the novel empirical facts of (non-)culmination uncovered in recent years. Analyses assuming, for example, event decomposition, where the events expressed by predicates like *burn the book* or complex resultatives like *paint the fence white* are decomposed into a process part and a resulting state (Dowty 1979; Pustejovsky 1991; Ramchand 1997; 2008), face difficulties when it comes to predicates where the denoted events do not culminate with respect to a result property. As pointed out by Borer (2005: 225), this also characterizes the latter example, as shown by the felicity of the sentence *You can paint these walls white for hours, but they won’t become white*. Thus, Borer (2005: 227) proposes predicate decomposition instead of event decomposition where items such as *paint* and *white* enter into the semantic computation as complex V-heads compatible with both quantity and non-quantity structures. However, it must also be noted that the interpretive properties of this example may be affected by the modal auxiliary, which naturally leads to the question of how modality and event aspect are related in English.

Another question concerns how various maximality/telicity operators interact with functional categories such as focus and negation across languages. For example, Martínez Vera (2023) shows that in Aymara relative interpretations arise with the degree maximizer -su with a focused element in the sentence. Without focus, in an out-of-the-blue context, an absolute/maximal interpretation is available. As for the role of negation in the environment of telicizing elements, Tham (2023) demonstrates that in Mandarin Chinese strings with verbs accompanied by the phase complement *dào* ‘arrive/to’, which is a telicity-marking element, tend to be more productive and less constrained in negative contexts than in positive contexts. As is often the case, a more in-depth understanding of these interactions remains to be explored, along with the range of maximizers yielding culmination or the lack thereof across languages.
Final remarks

In this thesis I have attempted to fulfil three objectives: First, in Part 1, I have presented an inner aspectual analysis of the structure of the event domain in Hungarian after a detailed overview of crucial event structural facts of this language. The central claim in this part of the thesis was that the event domain in the Hungarian sentence is structured by event-maximizing verbal particles and result predicates encoding an aspectual operator yielding the effect that non-cancellable, maximal-event interpretations come about. Furthermore, non-maximal, telic interpretations are argued to arise with pseudo-objects like egyet ‘one.ACC’ in the sentence. Next, in Part 2, I have provided a preliminary investigation of how the morphosyntactic resources of Hungarian determine what constraints characterize verb meanings. It has been shown that contra what is observable in English, Hungarian roots associated with verb stems are typically associated with a single ontological category (manner or result), in line with Rappaport Hovav and Levin’s (2010) manner-result complementarity hypothesis, and also the attainment of result states and result states tend to be encoded in different components. It is also important that culmination readings are often not accompanied by the coming about of a result state, which follows from the morphosyntactic properties of the event domain, as discussed in Part 1. Finally, an important goal of Part 3 was to give a cross-linguistic discussion of various (non-)culmination phenomena, in general, and place some of the facts of Hungarian in this larger, empirical landscape, in particular.

I hope to have shown that culmination phenomena in Hungarian and other languages still pose important questions to scholars, despite the plethora of works that have been written on this topic in the past several decades. A specific message that emerges in light of the discussion here is that the typology of inner aspectual elements within and across languages is more varied than previously thought. This is also a central idea in Borer (2023), where the class of elements responsible for culmination readings is more varied than, for example, in Borer (2005). In the more recent proposal, two operations are argued to create culmination structures: The first creates “event divisions that can be quantified over (possibly as an ordered scale)”, whereas the “second involves an operation on divided structures, which pick out the requisite number of divisions within it”. Each operation is “mediated through dedicated syntactic structure” (Borer 2023: Section 4), ASP-DIV and MAX, respectively. Borer (2023) proposes that inner aspectual elements within the verbal domain fall into three classes: English prefixes such as out in Kim outran all other contestans (this example is from Schmitt 1996) and some shifted particles value MAX, quantity DPs, goals and the prefix re- in English value ASP-DIV, whereas Slavic prefixes, Hungarian meg, and elements like once and twice value both MAX and ASP-DIV. As for resultatives, the claim is that in English they do not value ASP-DIV or MAX. Hungarian, by contrast, is different as resultatives in this language share aspectual properties with telicizing particles like meg, as also shown in Chapter 3. A similar classification is proposed with respect to the nominal domain. The node “DIV divides the denotation of N/n, creating a ‘reticule’ and # selects a designated number of cells in the reticule” (Borer 2023: Section 4.2). Cardinals and quantifiers value #, English-type plural marking values DIV, whereas Hungarian dividing cardinals value both # and DIV. In this way, there emerges a clear parallel between resultatives, verbal particles like meg and dividing cardinals regarding their quantificational effects, which seems an interesting result worthy of further investigation in studies on event structure in Hungarian and other languages.
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