Table of contents

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Chapter 1. Introduction

1.1. Topic of the dissertation

The topic of the dissertation is the relations between transitive verbs, aspect, and case marking in Estonian. Aspectual particles, verbs, and case marking of objects and adverbials specify aspect in a mutually complementing and partly overlapping way. The interaction between several types of aspectual information at the syntax-semantics interface is modeled in the framework of the Lexical Functional Grammar (LFG). My aim is to give a comprehensive account of the aspectual system of Estonian, a Uralic language spoken by approximately one million people. Relatively scarce material is available on the interaction of Estonian lexicon, syntax, and semantics. On the one hand, the present dissertation introduces new data and generalizations in those fields. On the other hand, the challenge presented by this material for current theories of verb meaning, aspect, and syntax-semantics interface is met in terms of a grammatical model. The introduction presents the setting for the dissertation; this section introduces the topic, the goals, and the main issues.

The dissertation addresses the following problems of previous theoretical analyses: the lack of data and sufficient generalizations pertaining to aspect-based case alternation, the inadequate representation of aspectual distinctions in lexical entries, the unclear status of aspectual particles and, most importantly, the non-comprehensive nature of the accounts of the aspectual system of languages like Estonian. The primary problem with earlier Estonian works concerns their descriptive and explanatory shortcomings. On the one hand, many of these impressive and otherwise reliable sources are characterized by diverse but insufficiently defined terminology, which leads to inconsistencies in data description. On the other hand, several earlier sources lack an explicit model in which claims about language could be expressed and tested. A major shortcoming of all previous accounts is their specialized nature, the absence of addressing the phenomenon in a comprehensive way. Paradoxically, concentrating on each of the elements of aspectual composition from the viewpoint of different linguistic subdisciplines has prevented previous scholarship from capturing the exact nature of these particular elements in interaction. These problems have led me to a focus on providing ample empirical material and generalizations, relating them to the current discourse on aspect and case, finding a suitable methodology, and formulating an account that explains the core data in this dissertation. By analyzing the particular elements within the context of a

comprehensive account, I provide an account of their aspectual contribution that has a better basis than the accounts of those scholars who studied them in isolation.

The case marking of objects and adverbials, aspectual particles, and transitive verbs are modeled to reflect a synchronic snapshot of Estonian aspectual composition in the crossroads of genuine Baltic-Finnic or Finno-Ugric characteristics, language change, and influence from contact languages. Estonian is a language in which the principles of the aspectual systems of several typologically divergent languages can be observed, and in which several semantic distinctions have a clear grammatical reflection. It is characterized by the Baltic-Finnic aspectual object case alternation and by aspectual phenomena related to the case marking of measure adverbials and subjects. As the most noteworthy peculiarity of this language, the aspectual or aspect-related oppositions emerge in the form of object case alternation of transitive verbs. Object NPs can be marked either with the morphological *partitive* or the *total case* (also referred to as the accusative case), the latter is morphologically realized as the genitive (singular) or the nominative (plural). As for case marking, not only objects but also subjects and predicatives have "split" case marking: morphological partitive vs. nominative (and genitive for singular objects). The general pattern of object and subject case marking in Estonian is presented in Table 1.1 (see also 2.2.3.3, Table 2.1).

Table 1.1. Subject and object case marking in Estonian

Subject cases	Object cases
Nominative Partitive (alternation in plural count and singular mass nouns only)	Genitive (total) (singular) Nominative (total) (plural) Partitive (singular and plural)

As in Finnish, the morphological cases that mark objects and subjects (the morphological genitive, nominative, and partitive) can mark the heads of the phrases of temporal and other measure adverbials. However, Estonian diverges from Finnish and resembles many Germanic languages in its productive resultative formation and combinations of syntactically separable particles and verbs. In addition, using its own means of aspectual encoding, the Estonian aspectual system accommodates several principles known to characterize Slavic languages. The partitive object case and the aspectual "bounding" particle *ära* may contribute to the aspect of the sentence in a way that resembles the Slavic secondary imperfective and some instances of the perfective verbal prefixation, respectively. The principles of aspectual systems that characterize several other languages interact in a mutually complementing and

partly overlapping manner in Estonian. Given the richness of available means of aspectual expression, specifying the exact contribution of each of them provides important evidence about the aspectual nature of verbs, particles, and case.

The analysis of the new data provides foundation for an account that differs from accounts provided by previous scholarship. First, despite the existence of several analyses that concentrate on some subtopics of aspect, lexicon, case, syntax, or semantics, a comprehensive aspectual study has not been formulated in LFG yet. This makes my account also new in terms of LFG and lexicalist syntactic approaches to aspect. Second, while completing the task of integrating scholarship from many areas, my thesis spells out the relationship between the levels of syntactic and semantic representation more precisely. I apply the methodology of treating functional and semantic specifications in the lexical entries of case markers as interface definitions. A pair consisting of a syntactic constraint and a semantic constraint, which is formalized as an interface constraint, defines the correspondences at the interface.

The original motivation for using parallel constraints was the problem of contradictory pairings of terminology and linguistic data. In studies of aspect, which are infamous for their different, incompatible approaches and ridden with ill-defined terminology, defining the semantic content of grammatical features is crucial. Given the goals of universal grammar, it is important to be able to capture typologically divergent languages in a uniform way. If a semantic distinction, such as semantic telicity, is relevant in the grammar of a language, the usual method (in LFG) is to represent the distinction as a syntactic feature, such as "TELIC +". The problem presents itself when a feature used at the syntactic level of grammatical representation, such as "telic", covers different phenomena. Alternatively, two different syntactic or grammatical terms, such as "resultative" or "telic", cover identical data. However, these mismatches are not necessarily due to conceptual confusions but may result form actual differences between languages. In aspectual literature, the term "telicity" is perhaps an example of the most confusing term. In some languages, a transitive verb may determine telicity lexically; in others, it may not, but the corresponding similar verbs are nevertheless referred to as "telic". This mismatch has yielded contradictory pairings of terminology and linguistic data. Therefore, the need for well-defined constraints on the semantic and syntactic side is particularly acute in the field of aspect. In the methodology applied here, the exact pairings of grammatical features and their semantic content are made explicit in the form of constraints imposed by lexical entries. In addition, my approach separates grammatical terms from semantic terms in order to show more clearly where semantically similar notions find a

grammatically different reflex. These devices result in a cross-linguistically more flexible framework for accounting for aspectual phenomena.

The aspectual contribution of the lexical entries of verbs is represented in a novel way in the grammar model. Strictly speaking, there are no transitive "telic" verbs in Estonian. In contrast to many previous accounts, where either the term "telic", "bounded", or "perfective" is used for referring to similar data, the present study applies all of them. However, these terms are considered to cover fundamentally different phenomena. "Perfective" is a broader term, including all instances of what is covered by the term "telic". Both are sentence semantic terms that describe predicates and can be associated with the term "non-homogeneous reference" in aspectual literature (cf. Kiparsky 1998). The term "perfective" is applied if the sentence has "non-divisive" reference. Crucially, a "perfective" predicate differs from a predicate that is "telic" in being "cumulative" but similarly to the "telic" one, not "divisive". A predicate is not divisive if the arbitrary proper parts of the event described by the predicate are not in the denotation of the predicate. A predicate is cumulative if the sum of the events that are in the denotation of the predicate is in the denotation of the predicate. This definition captures the perfective nature of Estonian sentences with "telic" verbs and partitive marked subjects or objects that are mass or plural NPs. The term "telic" is related to "strictly" non-homogeneous reference, which is understood as reference that is not cumulative or divisive. The term "perfective"—but not "telic"—can be used to describe transitive verbs. That is, features that correspond to semantic perfectivity can (but need not) be fixed in the lexical entries of transitive verbs. Features that correspond to telicity come to being via constrained unification, as explained in Chapter 7. As opposed to these two semantic terms, "perfective" and "telic", the term "bounded" pertains to syntactic features; that is, it represents the grammatically relevant semantic distinctions. According to the values of the attribute "bounded" at a syntactic representation level, the semantic interpretation of the sentence or clause is either perfective, telic, or neither. In sum, the third term, "bounded", is considered to refer to a syntactic feature, separated from its semantic relatives, which means departure from the general LFG methodology.

Thus, the structure of lexical entries reflects a new approach to the lexical encoding of telicity. Without direct reference to the quantification of the arguments in the composition of telicity, the proposed representation flexibly captures the fact that some verbs that are suitable for describing telic events and are called "telic" do not always describe telic events. Contrary to earlier approaches, first, the dissertation proposes two grammatical boundedness features that encode semantic telicity (or, for that matter, also perfectivity). One of the features

(boundedness of type one, B1, the B features are explicated in Section 7.2.3) encodes change in time that can be referred to as "quality" change; this feature is called the "scale" feature. It reflects the ability of a verb to encode a difference in states of affairs that is relevant. The other feature (boundedness of type two, B2) encodes "quantity" change. This type of change in time (or some other dimension) is the ability to refer to temporal progression that does not bring about any relevant change. This feature is called the "span" feature. In most of the examples here the latter can be associated with temporal duration. Previous accounts have recorded some facts that point towards the linguistic relevance of these distinctions (e.g., Tenny 1994, Depraetere 1995, or Kiparsky 2001b), but they have never been able to pin it down due to the lack of coherent evidence of a system where their interaction is clearly visible. On the one hand, a language where the distinctions can be observed in terms of morphology has not been studied. On the other hand, the difference is conceptually difficult to capture. For instance, von Wright (2001:301) discusses the logical and epistemological interdependence of time and change.

However, my study shows that in spite of this interdependence, language distinguishes change and simple temporal progression in its lexicon. Thus, here I present a feature system where a verb entry specifies the type(s) of dimension encoded in the verb meaning. The linguistic evidence for different features is twofold. First, it comes from the difference in grammatical function of the NPs that bear the total case as a marker of boundedness. The reflection of the boundedness of the first tier ("scale") is primarily object morphology; the reflection of the boundedness of the second tier ("span") is primarily non-argument morphology. The boundedness of the dimensions or tiers is encoded by identical morphological means, the total case. Second, additional evidence for the lexical encoding of two different aspectual tiers is provided by the lexicon, the semelfactive and degree achievement verbs. Some verbs (momentaneous, semelfactive verbs) encode an event of minimal progression in time (duration) without any relevant change. On the contrary, others (degree achievements) encode an event of minimal change, whereby the temporal dimension is lexically irrelevant.

Transitive verbs that are traditionally called telic cannot be regarded to be associated with exclusively quantized, non-homogeneous reference (telicity) in Estonian. Intuitively, only one part of the composite information that leads to telicity in the semantic structure is present in a simplex verb's entry. In my approach, the boundedness features that correspond to semantic telicity are, therefore, composite. Here, this insight is captured as an existential constraint in the lexical entry, which secures the attribute part of the attribute-value pair in

syntax. The existential constraint provides a way to fix the dimension, the type of change in a verb's entry. This device thus represents the ability of an Estonian transitive verb to refer to telic events. The other part of the composite information—the values for the attributes—is provided by particles, verbs, or case. The values that are related to clausal perfectivity are included in the lexicon in the entries of a case or a transitive verb, but crucially, the values that are related to the telic interpretation do not stem from the entry of a verb. According to the values of the attributes called "bounded", the semantic interpretation is perfective, telic and perfective, or neither.

In sum, the dissertation addresses several questions pertaining to the interaction between complex aspectual, semantic, and syntactic phenomena and shows how verbs provide partial but basic information about clausal aspect. My standpoint is that while verbs determine the basis for the aspectual specification in a clause, due to the number of factors that are related to case, it is not feasible to envisage the encoding of lexical aspect in terms of thematic or aspectual roles. Not regarding aspectual case alternation as a matter of thematic roles and argument structure is a departure from the general lexicalist spirit of addressing this problem. Since the data concerns the aspectual specification of verbs and particles and the case of both objects and adverbials, it is more efficient to model lexical aspect in terms of partially specified features than in terms of thematic roles or argument structure. A thematic role approach cannot easily integrate adverbial case, case alternation under negation and the case effects that arise with an aspectual particle subtype called the "bounding particle". Verbal features can more flexibly be integrated with the information from the aspectual features that are contributed by other elements than verbs.

Next to the novel approach to verbs, two basic types of aspectual particles are distinguished. The aspectual particles called "completive particles" form predicate complexes and represent a subcategorized element in a verb's frame. The aspectual particle called "bounding particle" is a particle type that has received little attention in previous literature. It is not subcategorized for and is not a part of a predicate complex with its own lexical properties. Instead, it combines freely. The predicate complexes with the completive particle that are discussed in the dissertation fall in several subtypes, depending on the transparency of the combinations of verbs and particles or complements. Predicate complexes share a similar verb frame type and some semantic constraints on arguments; they differ in how some of the elements in the frame are specified. Some complexes of verbs and particles or complements are lexically opaque and specify a lexically fixed form. Other combinations are transparent, and they do not specify the form, but only the obligatory presence of the complement.

Depending on the speaker's dialect, the particle may add aspectual features to the predicate complex. The dissertation formulates an important difference between simplex and complex verbs (predicate complexes) in Estonian. Contrary to simplex verbs, there is an additional constraint associated with predicate complexes. Predicate complexes fix the specificity of their complement. Importantly, that specificity restriction does not correlate with the aspectual but only the discourse functional constraints that are associated with case markers. Therefore, the object complement in a sentence with a completive particle can be partitive or total case marked. As a corollary, the sentence may have atelic or telic interpretation when the complement NP is specific. However, if the object is a mass or "bare" plural NP, that is, its referent is semantically homogeneous, the partitive case cannot felicitously appear in a sentence with a completive particle. The reason is not aspectual. The entry of the "semantically homogeneous partitive case" is simultaneously associated with discourse functional constraints that are incompatible with the semantic constraints imposed by the predicate complex.

The third main difference from many generative approaches is the treatment of case. The aspectual case is not "assigned" structurally or inherently; it plays an active role at the interface between syntax and semantics. Within the grammatical system of LFG, the dissertation adopts the view of syntax-semantics interface as relations between the functional and semantic structures. The syntactic level at which the mutually complementing and partly overlapping aspectual information is encoded is the functional structure. The active role of case is formulated in terms of constraints associated with the lexical entries of case markers. The lexically specified features of the verb and the general wellformedness conditions of LFG secure the sensitivity of aspectual case to verb classification, which is noticed in many earlier sources. On the other hand, the features of the case secure the effects of case on verbs. In my approach, case carries more information than strictly associated with its aspectual contribution in a clause. Constraints that pertain to discourse functions, semantic properties of the NP referent and the properties of the verb are part of the lexical entries of some case markers.

Finally, a note on current terminological debates is in order. There are proposals to change the term "total object" to "accusative object", and the term "partitive" covers a variety of concepts in linguistics. Partitive is used as the traditional name for a morphological case, also, as the name of the inherent Case in GB theory associated with indefiniteness, and as a semantic notion associated with partial interpretation. This dissertation regards the Estonian partitive as a morphological case but relates it primarily to aspect and defines it as a semantic case. Following Butt and King (2002:25), this dissertation defines semantic case in a non-

standard way as a type of case about which regular semantic generalizations can be made and that has the following characteristics: predictability via the formulation of generalizations across predicates and constructions, and subjection to syntactic restrictions, such as restrictions on grammatical functions of the NPs where the case can appear.

While calling one of the semantic object cases "total" is consonant with the claims made about this case here, the term "partial", used in Estonian grammars, does not transparently cover the respective semantic content of this semantic case. The partitive marked NP's denotation cannot be understood as "part-of" the denotation of the object NP's referent. Events described in clauses with "partial" objects do not necessarily reflect any "partial" progress of the event either.[1] Therefore, the term "partitive" is preferred to "partial". Similarly to "partitive case", "total case" is also an instance of semantic case as defined above. In international sources, the total case is frequently referred to as "accusative".[2] This dissertation takes the side of those scholars who, on the basis of synchronic reasons, assume a separate total or accusative case—the case that marks objects. However, this case cannot be considered as "the" object case, as some objects are not marked with this case; in addition to objects, the total case marks measure adverbials on similar semantic grounds with object marking. "Total object" (*totaalobjekt, täissihitis*) is the most frequently used term in Estonian linguistics for the object that is case marked with the morphological genitive or nominative. The term "total" is generally preferred in more aspectually inclined research about Estonian

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[1] For instance, in the Estonian correspondents of the sentences *John loves/believes/trusts/hits/sees/shoots etc. Mary*, the object NP "Mary" would be marked with the partitive, but the partitive marked "Mary" is not interpreted as "part of Mary"; there is no partial progress of the event described either. Frequently, the partitive marked object noun phrase has no referent. Therefore, nothing related to parts can serve as an umbrella for the "partial" object phenomena.

[2] Pusztay (1994: 48–49) or Hiietam (2002; 2003) can be consulted for synchronic and diachronic reasons for assuming case syncretism and a separate accusative case in the case system of Estonian; Kont (1963:21) can be consulted for a discussion and Saareste (1926) for reasons against assuming a separate accusative case. Hiietam (2002) is an excellent overview of sources on earlier discussions on this topic. Another proposal to consider the existence of a new case in the Estonian case system can be found in Matsumura (1993), where the dative adessive is discussed. The "total case" is morphologically an equivalent of what is referred to as accusative by Pusztay or Hiietam. These authors prefer the label "accusative", since they do not have any motivation for preferring the term "total". On the one hand, their approaches are not concerned with the interfaces with semantics but are typological and syntactic in nature; on the other hand, these authors regard this object case to reflect definiteness. This dissertation does not follow the practice of other scholars, e.g., Metslang (2001), in referring to the total case in glosses; instead, the glosses cautiously contain reference to the morphological form for descriptive accuracy. This decision finds support in the new policy adopted by the new Finnish descriptive grammar in preparation, where the Finnish (other than pronominal) object case that has been referred to as "accusative" is referred to as genitive or nominative (Erelt 2004:88). The morphological terms are also favored by Nemvalts (2000) in his discussion of subjects ("partitive and nominative subject"). In the sections where the Estonian object case is discussed in comparison with other languages and their object case, the total case is also referred to as accusative, which is the syntactic and typological relative term. In translations of quotations, the original naming for the case is retained throughout the dissertation.

object and, for the purposes of this dissertation, it serves as a suitable term that metaphorically conveys the "totally" bounded aspectual nature of the clause.

The following Section 1.2 concentrates on the reasons for the choices concerning the grammatical framework, methodology, empirical material, and focus on the research questions. Section 1.3 introduces the current aspectual terminology and issues.

1.2. Motivation of the main choices

This dissertation studies verbs from the viewpoint of their combinations with other forms of aspectual information in the sentence. Therefore, it is concerned with articulating the relations between verbs, aspectual particles, case marking, and aspect. This section presents an overview and motivation of the choices that have determined the aspect and lexicon related topics and my approach to case.

1.2.1. *Verbs and aspect and not NP properties*

The dissertation studies object case alternation as an aspectual phenomenon. Thus, it approaches the Estonian object case from the viewpoint of the so-called "aspect hypothesis". However, clausal aspect on the one hand and issues concerning the specificity feature of the object NP or the presuppositional nature of events, on the other, are connected in a way that cannot fully be explicated in this thesis. Therefore, the so-called "definiteness hypothesis" is not considered here. A plausible wording for the "definiteness hypothesis" could read as follows: the total case marks definite NPs, and the partitive marks indefinite NPs. The insight is that the "definiteness hypothesis" covers frequent but not all instances of the total case phenomenon and does not cover the partitive case.[3]

In a language without a definite or an indefinite article, it is reasonable to expect a compensating mechanism in the form of NP marking. The existence of two object cases may plausibly serve as an expression of this compensating mechanism. Statistically, there is even some correlation of data between indefinite NPs in imperfective (non-bounded) sentences and definite NPs in perfective (bounded) sentences. More precisely, the partitive case tends to occur with non-specific NPs, especially if the NP denotation is homogeneous, the total case occurs predominantly with specific NPs. These facts are explained by independent factors, for instance, by general tendencies in the use of aspect in narratives (Metslang 1994).

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[3] The dissertation deals mainly with singular count nouns.

Despite the statistical correlation, there is much evidence against the definiteness hypothesis. First, there is a definite article *see* 'this, the' developing in Estonian (Hiietam 2003); thus, the tendency in developing compensatory mechanisms might be a development of an article system rather than a system based on object case marking. Second, the definiteness hypothesis does not account sufficiently for another fact. In the Estonian correspondents of the sentences *John believes/trusts/sees/shoots etc. the president*, the object NP with "president" is marked with the partitive, and the partitive marked object, "president," is not indefinite. Also, there is a large class of verbs (creation verbs) in sentences with typically indefinite, discourse-new object referents that nevertheless occur with total objects. Next, the existence of clearly aspectual (event structural) verb classes and their typical occurrence with either total or partitive case marking suggests that the aspect hypothesis is more plausible than the definiteness hypothesis. Furthermore, there are no verbs that would give rise to regular minimal pairs on the basis of opposite object case alternation and confirm the definiteness hypothesis. For instance, the object case alternation with the verb *leidma* 'find' provides negative evidence for the "definiteness hypothesis". In a sentence with the total object, such as *leidsin võtme* 'I found a key' the total object NP "key" is indefinite, whereas in the imperfective (progressive) sentence *leidsin võtit korduvalt* 'I found the key several times' the partitive marked NP with "key" is definite (specific). Thus, the case alternation cannot be related to the alternation of indefinite-definite features of the respective NPs. Therefore, the definiteness hypothesis, which assumes a link between the feature of definiteness and the total object case or a link between indefiniteness and the partitive object case, does not find sufficient support from the data. This is the reason for adopting an aspect and predicate-related approach to Estonian object case alternation instead of a definiteness related approach. This is a standpoint that diverges from the one taken in the accounts of Belletti (1988), van Hout (2000), or Hiietam (2003). On the other hand, the link between aspect and specificity (understood as in Enç 1991) is still an open topic for further study. However, the success of the "definiteness hypothesis" partly depends on the progress of the research on the "aspect hypothesis" of the object case. [4]

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[4] See Kont (1963:98) for more information about the relations between the total and "partial" object and the (in)definiteness of the object. This source serves as support for regarding (in)definiteness as a secondary phenomenon in object case marking. For instance, Kont (1963:96) explicitly argues for the secondary nature of the object's quantification and subordinating the phenomena of definiteness and nominal quantification to verb semantics.

1.2.2. Verbs and aspect

Despite the importance of object case in encoding much information about aspect in a sentence, this dissertation rejects a purely aspectual (or event structural) explanation of Estonian object case phenomena. A purely aspectual (or event structural) explanation means explaining the object case oppositions via their correlation with the oppositions of perfective-imperfective (or telic-atelic). The "aspect hypothesis" is merely used as a point of departure in this dissertation, and not as an alternative to the definiteness hypothesis. Clausal aspect is largely determined by verbs. Estonian has clear aspectual verb classes that correlate with (a) the typical object case that occurs with these verbs and (b) the possibilities of aspectual expression that are associated with these verbs (see Section 3.2). However, identical verbs can occur in aspectually opposite sentences. An extensive review of data in Chapters 2 and 3, and a critique of previous Estonian work in Chapter 3 serve to provide an empirical backing for these claims. The alternative approach advocated in Chapter 7 is based on lexical aspectual features.

The main reason for assuming a lexicon-based approach to object case and not a purely aspectual one is the discrepancy in the one-to-one correspondences between aspectual oppositions and alternations of object case. Perfective sentences can have total or partitive objects; the same generalization holds about telicity and object case. The conditions of the aspect-based assignment of the alternative object cases clearly vary according to verb classification. The availability of perfective aspect with a partitive object in the sentence is verb-class dependent. Telicity and partitive objects co-occur in sentences with measure adverbals; the possibility of measure adverbials is in turn also dependent on semantic restrictions that can be related to verb classification. Therefore, this dissertation has opted for different methodology for approaching the "aspectual hypothesis". Instead of proposing principles for verb classes and establishing their typical object case, and instead of departing from object cases and establishing their link with aspect, those elements or factors are studied in their interaction. The broader perspective has yielded a new picture of the verbal basis of the interaction. Differently from earlier accounts, the interaction is not formulated in terms of thematic or aspectual roles, but in terms of features. The following subsections present the reasons for considering the role accounts and the reasons for ultimately choosing for a different approach.

1.2.3. Aspect and objects: Tenny (1994)

The reason for choosing Tenny's approach for presenting the problems of the lexicon-syntax interface is its special focus on the relation between aspect and objects from a lexicalist point of view. My interface claim is that an unbounded scale (tier, attribute) in the meaning of the verb determines the presence of the internal argument (or the Object in LFG).

Tenny's work is taken as a reference point for many lexicalist studies on aspect. On the one hand, after two chapters of discussing Estonian earlier works and data, a criticism of Tenny's framework in Chapter 4 is a suitable starting point for emphasizing the special nature of several Estonian aspectual phenomena and articulating the problems they raise in the context of aspectual syntax-semantics interface studies. Namely, Tenny (1994) claims that universal principles of mapping between the lexicon and syntactic argument structure are governed by aspectual properties. This claim seems to be confirmed by Estonian data, since objects and aspectual expression are clearly related. More specifically, Tenny posits a link between the presence of a direct object (direct internal argument) and the expression of certain aspectual properties such as "delimitedness" or "measuring out of events". Section 1.3.10.1 discusses Tenny's terminology in further detail, comparing it with Verkuyl's terms. In its Chapters 4 and 7, this dissertation spells out the relevance of related terms in accounting for Estonian aspectual phenomena.

On the other hand, a closer look at the Estonian data shows that Tenny's widely accepted aspectual interface hypothesis is too strong. Also, many of her formulations are simply not clear in view of Estonian phenomena. Despite the fact that a fair majority of Estonian data seems to confirm Tenny's hypothesis, Estonian and its various means of aspectual expression allow for a more fine-grained study of the interface between syntax and semantics. Thus, there are data that suggest a revision of the hypothesis. First, there are examples without any direct internal argument that, contrary to expectations, are compatible with Tenny's criteria for delimitedness and measuring out (*tutvuma* 'get acquainted'). Second, the relations between delimitedness, object case, verbs, and particles present a wider array of data than Tenny's theory can capture, necessitating a different approach to aspectual phenomena. For instance, there are sentences with verbs with an experiencer and agent or theme argument. The theme argument is realized as the (total) object and not the experiencer, while the experiencer undergoes an internal change and should, therefore, provide the measure for the event. A couple of examples: *andestama* 'forgive', *unustama* 'forget'. In addition, some of the particle data suggest that the Estonian bounding particle *ära*, which can

combine with verbs with no measuring argument, is not the kind of particle that is clearly covered by Tenny's account of particles. The total (accusative) object of non-measuring arguments of verbs such as *andma* 'give' or *lükkama* 'push', as in *andis Marile raamatu*(gen) 'he gave a book to Mary', *lükkas selle.gen käru*(gen) *poodi* 'he pushed this cart to the store' are problematic for Tenny's account of Finnish, where the distribution of accusative and partitive case should reflect the presence and absence of aspectual roles and delimitedness. The partitive object case that appears in sentences with a measuring argument describing a delimited event, as with "surprise achievements" in 3.2.4.1, such as *üllatama* 'surprise', is another piece of evidence of unclear relations between arguments, case, measuring out, and delimitedness. Despite these shortcomings, Tenny's framework provides a suitable basis for separating the types of aspectually relevant features in the lexical entries and their relation to lexical representation.

My claim is that some of these problems may be solved if measuring out is envisaged on two aspectual (measuring) tiers and in terms of different types of boundedness (delimitedness). Crucially, Tenny's hypothesis allows me to bring out the difference between the lexically (verbally) specified scale and span tiers. Tenny is concerned with the scale tier only. A lexically specified span tier is unrelated to argument encoding and is irrelevant for mapping to direct internal arguments. A lexically specified but unbounded scale tier is related to the presence of internal arguments and objecthood.

Another reason for introducing the framework and terminology of Tenny (1994) is the discussion of aspectual particles. On the one hand, the different status of a type of Estonian aspectual particle is clearly revealed, since it can be shown that this particle falls out of the scope of Tenny's theory. On the other hand, the fact that delimitedness (and total object case) is not determined by the role grid of the verb but rather depends on the presence of the aspectual particle suggests that there must be a better alternative to a verbal aspectual role-based approach.

As an alternative, a thematic role-based approach cannot be adopted. It is a widely accepted fact that the thematic role of "incremental theme" is aspectually relevant; it occurs with verbs that can express aspectual oppositions depending on their object's quantification. However, the presence of a quantized incremental theme argument is not a sufficient condition for delimitedness and the total object case realization. For instance, the incremental theme verbs *kirjutama* 'write' or *sööma* 'eat', as opposed to *lugema* 'read', have total objects in contexts without a contrastive focus or an aspectual particle. The verb *lugema* 'read' can only have a total object if there is a contrastive focus or an aspectual particle in the clause.

Therefore, a thematic role account would not provide any serious solution to the problem (cf. the discussion of Krifka and incremental themes in Chapter 7).

1.2.4. Aspect and object case: Ackerman and Moore (1999, 2001)

A proposal to assume many thematic ("proto"-) role entailments that are involved in aspectual object case encoding is developed in Ackerman and Moore (1999, 2001). My claim is that Estonian aspectual case cannot be accounted for in terms of case assignment that is based on thematic roles, since it concerns both arguments and adjuncts (adverbials) and interacts with aspectual particles. Also, my interface claim is stronger than theirs in that an unbounded scale (tier, attribute) in the lexical representation of the verb is seen to determine the mapping to Object.

Ackerman and Moore (1999, 2001) include an aspectual role as part of thematic (patient) proto-roles. These authors share the views of Tenny about an aspectual role mediating between semantics and syntax. However, they differ from Tenny in giving a more precise account of object encoding phenomena and case phenomena. Ackerman and Moore envisage two levels of proto-role and hierarchy-based encoding; one leads to object encoding, and the other leads to object case encoding, explaining morphosemantic alternation. Ackerman and Moore (2001) thus do not support the aspectual interface hypothesis. However, for object case encoding (morphosemantic alternation), the aspectual proto-patient entailment is relevant.

Thus, the aspectual role or predicate entailment of telicity (Ackerman and Moore 1999) or boundedness (Ackerman and Moore 2001) plays a crucial role in the selection of the morphological case of an object but not in the encoding of an object as such. Intuitively, this is correct. The aspectual role serves as part of the entailments that determine case encoding in terms of the case hierarchy of Blake (2001). These authors are further relevant, since they discuss Estonian. As an innovation introduced on the basis of Estonian, Ackerman and Moore (2001) enrich Blake's hierarchy with the partitive case, which is placed lower than accusative (genitive-nominative) in the case hierarchy. The more proto-role entailments there are, the higher up in the hierarchy is the encoding of the case. Thus, having the aspectual entailment results in the encoding of the genitive-nominative (total) case in Estonian. Further, the alternative cases (partitive vs. genitive-nominative) are assigned by separate but related predicates that have a different number of proto-patient entailments.

The line of research in my dissertation is similar to that of Ackerman and Moore (2001) in being predicate based, giving special emphasis to morphological case and explaining the difference between the two types of case in terms of aspect. Thus, I agree with their account in that there is one level of operations and one set of features that determine verb frames, and there is another level of operations and another set of features that are related to the concrete object case. I disagree with these authors and there is more interdependence between these two levels. In fact, Ackerman and Moore's account has three proto-roles that matter for object case encoding: bounding entity, incremental theme, and change of state. In my account, the equivalent of Ackerman and Moore's bounding role is a feature that is encoded in the entry of the total case (or a particle). However, in contrast to their system, where verbs specify a bounding entity, transitive verbs in my system can specify only an incremental theme entailment like attribute (span attribute) or a change of state and incremental theme entailments like attribute (scale attribute). The feature that is similar to the bounding entity entailment is specified by the case or by the aspectual particle as a feature-value pair. The consequence is that if a verb specifies an attribute that bears similarity to incremental theme or change of state as having a value lexically, the wellformedness conditions in LFG ensure that the verb cannot occur with the total case marking. Chapter 7 spells out the details.

As a difference, an aspectual feature, more specifically, the feature that is similar to the incremental theme entailment is related to adverbial and measure adverbial case in my approach. Capturing adverbial and object case is a challenge for a lexicalist approach. In order to solve the problem of case assignment to non-arguments, case in general has been given an active role in my approach. The thematic role approach is not followed.

As opposed to the general similarities in understanding the aspectually important elements in verb meaning (and the crucial differences in modeling them), the combinations of verbs and particles are understood and modeled differently than in Ackerman and Moore (2001). The combinations of the particle type called completive particle may be regarded as a result of a productive resultative rule that derives predicate complexes from transitive and intransitive verbs, which is similar in spirit to Ackerman and Moore. Differently, the resultative rule does not automatically introduce the bounding entity proto-patient role entailment, but it adds only a special semantic specificity constraint on the complement and an existential constraint of the scale attribute. Therefore, the assignment of the total case is not as tightly related to the predicate complex as in Ackerman and Moore. More importantly, combinations of verbs and the particle type called the bounding particle are not regarded to be a result of a productive resultative rule. Those combinations are not brought about by a lexical

rule; they are free combinations and their features interact with case features instead of verbal features.

In sum, the thematic or aspectual role based and argument structural approach to lexical aspectual encoding is not taken as the basis for the account of Estonian aspect in this dissertation. Here, a spread or "scattered information" model of aspectual information is adopted; this model can be implemented within the LFG framework.

1.2.5. *Lexical Functional Grammar*

This dissertation has chosen for the LFG framework in order to account for a considerable amount of intricately related data about the interaction between verbally determined aspect, object and adverbial case, and particles. LFG is an alternative to transformational grammars in its search for Universal Grammar. LFG as a non-transformational generative framework is exceptional with its attention centered on typologically divergent languages. These properties make this framework attractive for linguists whose aim is to give a comprehensive account of fairly many data from a language that is relatively little described and typologically remote to the more frequently discussed Indo-European languages. Also, as an advantage over many descriptive and theoretical grammars, LFG has computational backing. It is a framework that is often applied to research non-configurational ("lexocentric") syntax, which is characteristic of Estonian. In Estonian, discourse determines much of the surface syntactic structure. Also, information about grammatical functions is determined by case in Estonian. For these main reasons, the LFG framework is chosen as the optimal one to discuss verbs, aspect and the morphological, semantic and syntactic problem of case. Basically, this is a framework that enables accounting for linguistic phenomena where these phenomena are either morphologically or syntactically visible. Those items contribute features to the functional structure.

LFG works with grammatical features. This device is preferred here in order to model the relations between case, particles, and verbs. Aspectual information in transitive verbs is modeled in terms of two aspectual tiers in the form of scale and span features. Both features can be specified and bounded lexically (by the verb) or non-lexically. If a tier is bounded by the verb, the verb is perfective, and the case or particle features cannot add information to that feature. The exclusion of boundability explains the incompatibility of certain verb classes with certain patterns of object or adjunct case marking.

1.2.6. Aspectual semantic case and previous work in LFG

Object case encodes aspectual semantic information in Estonian. The LFG framework allows locating pieces of aspectual information and information about grammatical relations in many (discontinuous) constituents that may appear in several configurations in surface constituent structure syntax (c-structure). Simultaneously, it allows locating them at one place at the other syntactic level, the functional structure (f-structure). This effect is achieved by means of constraints that pertain to relations between the levels of representation. My account relies on parts of several previous analyses and methods, listed below.

1) An analysis where the constructive case model is used to account for encoding sentential aspect on dependents (Constructive case in LFG as in Nordlinger and Sadler 2004).

2) Inside-out constraints as discussed in terms of case marking also in King (1995) Russian, or Butt (1995) for Urdu.

3) The typology of case as discussed in King (1995) and Butt and King (2002) for Urdu.

4) An interaction between semantic and lexical constraints in object and adjunct case matters as analyzed in Lee (1999). Lee builds semantic and argument structural constraints into an LFG analysis of object and adjunct case marking in Korean.

5) The approach of Toivonen (2001), which distinguishes resultative and aspectual particles; they combine syntactically with the verb in Swedish. The insight that is adopted here is that despite the similarities (or differences) in surface syntactic structures, the particles may differ in function. The approach sketched in Toivonen's account to modeling the interaction between Swedish verbs and aspectual particles is developed further and applied to modeling the interaction between Estonian case and particles, and case and verbs.

Chapter 6 and 7 present these and other previous works on the relevant topics. This study has grown out of the intuition that there is a special relationship between Estonian objects and aspect. Before discussing the earlier presented Estonian approaches and in order to provide the setting for the problems that will be addressed in this dissertation, the following Subsection 1.3 briefly introduces some current discussions in international sources on aspect and on the nature of predicates. Also, an exposition of terminology as used in other sources is provided in the last subsections of the following section.

1.3. Some current discussions in international sources on aspect and verbs

The works of Verkuyl stand out in their aspiration to model aspect as it emerges in the relations between semantics, lexicon, and syntax. Starting from his early work (Verkuyl 1972), several accounts of aspect began to view a sentence's aspectual properties as being determined by more components in a sentence than the verb alone: for instance, direct objects and their corresponding NP's quantification. Those approaches and their terminology deserve mention here due to their ambition to address aspectual composition in a comprehensive way. This ambition is necessary in order to account for languages such as Estonian, where not only verbs, but also objects clearly enter the aspectual composition.

Despite the relevance of Verkuyl's approach for providing an integrated account of aspectual phenomena, this dissertation has not opted for his framework. A closer look reveals some challenging contrasts between the Germanic and Finnic languages. Verkuyl's two main principles of modeling aspect, the so-called Plus Principle and the device of describing aspect at two syntactic levels are not directly helpful for modeling Estonian phenomena. First, the aspect of a verb-argument complex cannot be composed on the basis of the verb's (temporal) feature and the (atemporal) quantificational properties of the argument as envisaged in Verkuyl (1993). Instead, it is the partitive and total case marking that correlates with the aspectual oppositions. However, a possible alternative to analyze the data and retain the Plus Principle, resorting to lexically determined aspect via thematic roles that relate to case (thematic glue, cf. Verkuyl (2002:102)), cause other problems. Case linked to verbal roles is problematic if case is not determined by the verb alone. Primarily, the aspectual case phenomena related to the aspectual bounding particle, case marking of adverbials or in negation, and verbally encoded perfective aspect complicate accounting for aspectual phenomena. Those phenomena should clearly divide between two syntactic levels as envisaged by Verkuyl, but they don't. Some more detailed discussion is presented in the following subsections in order to motivate the choice for a different approach to the case related data in this dissertation.

1.3.5. Two levels of discussing aspect

Frequently, two levels are found useful in discussing aspectual phenomena across otherwise diverging approaches to aspectual phenomena (as in Depraetere 1995, Smith 1991, Verkuyl 1989, 1993). It is impossible to sketch all the reasons for these distinctions that are assumed in

the vast number of aspectual approaches. Basically, the problem is that there are, on the one hand, phenomena that are related to verbs or basic events or situations and, on the other hand, there are phenomena that involve aspect that is "added" to what is considered basic, be it morphological derivation, viewpoint on events, phenomena such as temporal boundedness, operators, etc. One of the main reasons for splitting the study of aspect in two levels is the variable behavior of verbs in terms of describing situations or events, or the possibility of describing one type of situation by means of various linguistic devices. Thus, roughly, the situations or events themselves are assumed to be describable at one linguistic level or by one set of linguistic means, for instance, simple verbs. The different views and presentations on them or factors that modify the basic properties are seen in terms of another level of description. Defining these levels and drawing a line between them diverges considerably across languages and approaches despite occasional (misleadingly) similar terminology.

1.3.6. Inner and outer aspect

Authors following Verkuyl relate the two levels of aspect in terms of their correspondence to syntactic levels; several other authors make a distinction between the levels of lexical and grammatical. The aspectual phenomena that are understood to be describable at the level of the verb and its arguments are referred to as the "inner aspect", "VP aspectual level", "VP telicity", or "VP terminativity". This level describes phenomena that are referred to as event structure, a situation, or Aktionsart. Aktionsart as a term, however, will be reserved for more specific manners of actions in this dissertation, as in discussions within the Slavic or Estonian traditions, or for Hungarian aspect, as in Kiefer (s.d.). Together with subjects, this (tenseless) aspectual level of verbs with its arguments, as understood in Verkuyl (1993), is most frequently referred to as "inner aspect" in frameworks following Verkuyl.

Estonian verbs have a different aspectual contribution to "inner aspect" than the Germanic verbs as discussed in Verkuyl's works. Verbs are classified in two groups in Verkuyl's approach, according to whether they can appear in a terminative (telic) VP or not. Verbs are distinguished according to whether they have the lexical feature [+ADDTO] (e.g., as the verb *eat*) or the [-ADDTO] feature (e.g., *listen to*). In the composition of Verkuyl's inner aspect (terminativity), aspectual properties are derived compositionally from the temporal information contained in the verb and from the atemporal quantificational properties of its arguments (described in terms of the feature [±SQA]). Therefore, the inner aspectual terminativity value, represented in Verkuyl's system by the feature [±T], is not determined at

the lexical items' or verbs' level, but at the VP level according to the so-called compositional Plus Principle. According to the Plus Principle, there are two outcomes. The positive compositional VP-feature [+T] emerges if a verb with the feature [+ADDTO] combines with an argument with the feature [+SQA], a quantized NP (e.g., *eat one apple*). If at least one of these features is negative, that is, when the verb is not [+ADDTO] and/or one of the arguments is not quantized, the compositional [±T] feature is also negative, that is, the VP is durative, [-T] (e.g., *listen to the concert, to music, eat apples*).

In sum, oppositions of terminativity versus durativity are understood at the level of the VP and they are derived compositionally in Verkuyl's approach. Several accounts following Verkuyl prefer the term "telic" to Verkuyl's "terminative" and "atelic" to "durative".

In Verkuyl, "outer aspect" is the higher level of factors that influence the temporal characteristics of the sentence, differently from the verb and its complements. "Outer aspect" emerges beyond the contribution of the verb and its complements in a tenseless sentence. For instance, adverbial modifiers or operators, such as the progressive or several adverbials such as *for an hour*, determine the final aspectual character of the sentence. This level is frequently referred to as "outer aspect". The following list presents the points where Estonian is problematic in terms of VP aspectual composition and in determining the location of case phenomena at the two levels.

1)   The data with [+ADDTO] verbs (e.g., *eat*) and with partitive marked quantized NPs. Contrary to expectations, [+ADDTO] and [+SQA] yield durative and not terminative VPs; see the data in Section 2.2.3.3 (Chapter 2).

2)   Contrary to expectations, non-quantized (partitive marked) NPs with a [+ADDTO] verb (e.g., *eat*) also fail to yield a durative VP. The details of the criticism are presented in Section 2.2.3.3 (Chapter 2).

3)   Only the [-ADDTO] verbs (e.g. *see, hear*) clearly display the behavior predicted by Verkuyl's system, since the quantification of the argument NP does not influence the inner aspectual compositional feature. Rather, the partitive as opposed to total case marking correlates with aspectual oppositions.

4)   Trying to base an account on case phenomena that determine VP aspect instead of the quantification of the argument NPs is not easy either. An alternative account would link the case phenomena to thematic roles (cf. Verkuyl 2002:102). However, it is still a question whether thematic roles

are a suitable device to capture aspectual case. Thematic roles would be justified if the case were unambiguaously a matter of verbal aspect, but this is a problematic point that is difficult to verify.

5)   The fact that both telic and atelic verbs appear with partitive case marking may show that partitive case marking characterizes phenomena that belong to inner or outer aspect. The partitive object case may reflect simultaneously distinctions of atelicity (VP, inner aspectual compositional durativity) and the progressive or negation of telic verbs (the result of an outer aspectual operator), respectively.

6)   The problem of assuming verbal thematic roles is also challenged by the fact that the total case may also characterize phenomena that belong to outer aspect. If VP terminativity were related to total object case via verbal thematic roles, then it would be difficult to account for the data on total objects and the aspectual particle *ära* that are presented in Chapter 5. This particle can combine with [-ADDTO] verbs, which are characterized by partitive objects. Lexically atelic verbs, which, if associated with partitive object case marking via thematic role properties, could not appear with the total objects in the presence of the aspectual particle. However, they do. Then, if it is not the inner aspect, which pertains to verbs and their arguments and that determines the case, it must be a different aspectual level that determines case.

7)   The case of the temporal adverbials such as *for an hour,* their status as elements of the outer aspectual level is puzzling since they receive semantic case like objects (discussed in more detail in Chapters 2, 6, and 7). Following Verkuyl's approach, the durative temporal adverbials are semantically operators; this makes them belong to outer aspect. In Estonian, they display morphologically common features with arguments. More specifically, total case marking that characterizes objects of telic verbs appears on the heads of the NPs of durative adverbials. If case marking were dependent on thematic roles and inner aspect only, appearing on NPs that are arguments, the durative adverbials should be regarded as atypical arguments. This is problematic syntactically and also semantically, given their status as operators that belong to outer aspect.

8)   Given the thematic role hypothesis and the distinction of two levels, partitive objects that appear with a subset of lexically perfective verbs are problematic (see Chapter 3, 3.2.4.1 for such verbs, "surprise achievements"). They describe events that are either temporally constrained to short duration or to a minimal change by their lexical specification. The status of such verbs is unclear in approaches that follow Verkuyl.[5] In Verkuyl's Plus Principle, NPs only fail to contribute anything to the VP aspect if the verb is atelic, [-ADDTO]. The problem here is not only the failure of a quantized NP to enter composition with verbs of which it is not possible to demonstrate that they are atelic, [-ADDTO]. The problem is the level of representing temporal aspectual matters that cannot be unambiguously classified in terms of the verbal lexical feature [ADDTO] at a par with other instances of verbs. Verkuyl admits the unclear status of Moens and Steedman (1987)'s Points and Culminations in his system. In his words, "I am not sure whether or not my [-ADDTO] would apply to Point and Culmination" (Verkuyl 1993:63). The alternative of defining argument-related temporal relations as VP aspect and non-argument related temporal relations as a matter that belongs to the level above the VP also encounters problems. While morphologically distinguishable perfective verbal prefixation can perhaps be studied in terms of inner and outer aspect, it seems contradictory to regard a simple verb's meaning to encompass both lexical (VP) and non-lexical (above the VP) levels of representation.

The Estonian verbal, case and particle related phenomena challenge the idea of a clear partition of aspect at the two syntactic levels as defined in Verkuyl. In order to give an uncomplicated account of those and related problems, this dissertation does not look at the interaction between syntax, semantics and lexicon in terms of Verkuyl's framework. I propose an LFG based approach to the data, where a simple but more refined classification of verbs is assumed: instead of one feature, I work with two. The quantification of arguments is of secondary importance, my approach relies more on the basis of notions such as perfectivity, (endpoint) telicity and boundedness. Those terms and how they are used for his specific analysis are discussed in Chapter 7. The following subsection reviews the terms as they are used in related influential work.

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[5] Ferenc Kiefer (p.c.) points out that momentaneous verbs are problematic in Verkuyl's account.

1.3.7.   Boundedness and compositionality: Kiparsky

Another reason for why Verkuyl's idea of the compositionality of VP-aspect has to be mentioned is its impact on recent studies on boundedness in Finnish aspect. For instance, the account of Kiparsky (1998) of the Finnish partitive case and aspect (more specifically, '(un)boundedness' [±B]) discusses the compositional nature of the Finnish VP-aspect.

Why does Kiparsky prefer this term, "boundedness"? The term "boundedness" is frequently used in sources dealing with Finnic to characterize the semantics of verbs, nouns, and sentences. Also, the term is used for descriptions of various situations, activities etc. It is considered an important component of perfectivity. Accusative and total cases in turn signal perfectivity; see more in Chapter 2 about the application of these terms in some Finnish and Estonian sources. Finnic sentences, activities, verbs and objects are characterized by identical terminology: plus or minus bounded. From this perspective, a compositional account such as Verkuyl's looks promising. Indeed, Kiparsky writes on the Finnish composition of boundedness, "[a] VP predicate is unbounded iff it has either an unbounded head or an unbounded argument" (Kiparsky 1998:285). This is quite like Verkuyl's proposal. Kiparsky writes about VP semantics and defines boundedness via a composite semantic definition containing "diversity", "cumulativity" and "distributivity". He studies boundedness only at the verb-argument level. The general pattern of boundedness in Finnish (following Kiparsky 1998), and as my addition, the relation between boundedness and object case marking in Estonian, is revised in Table 1.2.

Table 1.2. Boundedness and its relation to object case marking in Estonian

	[+B] object *an apple, a book*	[-B] object *water, books*
[+B] verb (telic) *buy*	Total õuna, raamatu	Partitive vett, raamatuid
[-B] verb (atelic) *underestimate, see*	Partitive *õu*na, raamatut	Partitive vett, raamatuid

The total case and VP-boundedness emerges only in a combination of bounded verbs and objects. If either the object's feature or the verb's feature is negative, the VP boundedness is also negative, and the case of the object is partitive. Kiparsky's approach resembles Verkuyl's account in assuming a VP-aspectual level, but it is important to point out that these two approaches to composition are further considerably different. A comparison with Kiparsky's and Verkuyl's systems shows that the contribution of the verbal semantics in its interaction

with NP-properties is different in the model designed for Finnish. The feature [±B] (if applied to verbs) is not equal to the [±ADDTO] feature as envisaged in Verkuyl on the basis of Germanic languages. As opposed to the [+ADDTO] feature, which characterizes basically dynamic verbs, [+B] characterizes a smaller set of verbs, that is, accomplishment and achievement verbs, excluding the [+ADDTO] process and activity verbs (see 1.3.10.2 on the Vendler-Dowty classification, Section 3.2 and Chapter 3 for these terms).

Introducing the term "boundedness" here is relevant in this dissertation, since some types of correspondences between verbal aspect and object case can be best explained assuming a difference between the values given to the attribute of boundedness.[6] These values will be further discussed in Chapter 7. Despite the similarities between Finnish and Estonian, lexical aspectually, there are three main differences between Finnish and Estonian that motivate a different approach in Chapter 7.

1) The consistence of Estonian verb classes diverges from the Finnish ones in terms of object case.

2) Estonian has a large group of lexicalized particle verbs as an established fact as opposed to Finnish.

3) Estonian has a particle that is a grammatical aspectual marker.

Apart from the differences, in Finnish and in Estonian, the object NPs' morphological case and not verbal morphology is clearly related to aspectual phenomena, and aspect is mainly described via the notion of "boundedness" that reflects the interaction of many grammatical modules. This is the strongest point of Kiparsky's approach to Finnish case, retained in this dissertation. The claim of this dissertation is that the total case marking of objects and adjuncts is related to grammatical boundedness. Chapter 7 models boundedness at two dimensions or tiers. In some sense one of these dimensions of aspectual boundedness bears resemblance to what is meant under this term by Kiparsky, the other dimension bears resemblance to what the term "boundedness" covers in Depraetere (1995).

1.3.8. *Depraetere: temporal boundedness versus telicity*

Depraetere (1995) is a relevant source, since she defines two types of endpoints that are employed in this dissertation. As no exception to the rule in aspectual literature, Kiparsky's

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[6] This distinction bears some resemblance to the distinction discussed by de Groot (1984) about the applicability of the terms "complete" and "completed" in analyzing the aspectual nature of Hungarian verbs.

understanding of boundedness does not correspond to that of Depraetere (1995). Depraetere presents a classification of situations, which is based on two concepts:

1) Actual *temporal boundaries* that determine the (non-)boundedness of a sentence

2) *Terminal points or endpoints* of situations that determine the telicity of situations.

Depraetere writes, "(A)telicity has to do with whether or not a situation is described as having an inherent or intended endpoint; (un)boundedness relates to whether or not a situation is described as having reached a temporal boundary" (Depraetere 1995:2-3). Depraetere's telicity has a linguistic expression in predicates such as *eat an orange* or *run a marathon.* The temporal boundedness of situations may have linguistic expression in (temporal) adjuncts such as *from three to four,* or *for an hour*. This is important, since the Estonian total case, as will be demonstrated later, can be understood to be the grammatical marker of both phenomena. An interesting example of a terminal point is the situation of "staying five minutes under cold water". This situation has a terminal point—the end of the lapse of five minutes. Depraetere's discussion of temporal measure phrases that resemble objects is interesting in terms of Estonian partitive-total case alternation of measure phrases. It is unclear where these elements belong to in the systems of Verkuyl or Kiparsky.

The distinction between two types of terminal points is illustrated by the examples of running the marathon and sunbathing: both have necessarily an end point, a moment when one stops running the marathon or sunbathing. However, this terminal point is not part of the meaning of "sunbathing", whereas it is part of the meaning in "marathon-running", which logically ends when the distance of the marathon is covered by running. Depraetere (1995:2) argues that even though the actual world situations must have a beginning and an end, there is no linguistic reference to these temporal boundaries. The total case of adverbials, however, may be regarded as a type of linguistic reference to these boundaries.

In sum, Depraetere makes a twofold distinction in descriptions of situations, depending in the first instance on whether the situation has an inherent or intended terminal or end point; and in the second instance, whether the situation is described as having a temporal boundary or not. Concisely, situations in (1) are classified into having an inherent or intended endpoint (I) and not having an inherent or intended endpoint (II).

(1)
(I)   + inherent/intended endpoint
      (a) +endpoint reached; + temporal boundary
      (b) -endpoint reached; - temporal boundary

(II)   - inherent/intended endpoint
         (a) + temporal boundary
         (b) - temporal boundary (Depraetere 1995:2)

Since Estonian has an opposition of nominative and total case marking of durative adverbials that specify a span of time with a clear temporal boundary, a more fine-grained approach is taken to endpoints and boundaries in my dissertation. The total case marked durative adverbials are analysed as specifying an endpoint (as in Depraetere's example of standing five minutes under cold water), while the nominative ones, which fall out of the scope of my study, cannot be analysed as specifying an endpoint. Thus, I divide the temporal boundedness of Depraetere in two subtypes, endpoint-and non-endpoint types of boundedness. However, Chapters 3 and 7 also discuss that there are also instances of lexical temporal boundedness, and many other issues that show that Depraetere's system of two dimensions should be refined.

Thus, Depraetere's temporal situation boundedness does not correspond to Kiparsky's boundedness of VPs. That is, the linguistic description of Depraetere's bounded situation does not necessarily correspond to a VP that in Kiparsky would have the feature [+B] (or in Verkuyl's composition, [+T]). Instead, the linguistic description of Depraetere's telic situation corresponds to a VP with the feature [+T] in terms of Verkuyl and the feature [+B] in terms of Kiparsky.

1.3.9. *Summary on boundedness and telicity*

In sum, on the one hand, there is an aspectual opposition of "boundedness" that is typically determined by the verb and its arguments. This corresponds to Kiparsky's boundedness and it relates to object case. On the other hand, there is also an aspectual opposition of temporal boundedness that may be expressed by total case marking on durative adverbials—Depraetere's boundedness. Distinguishing these two is important, since they relate differently to case. In Finnish, the partitive object case is possible in sentences that describe situations that are bounded in the sense of Depraetere.[7] In Finnish, the partitive object case (if not NP-related) is impossible with Kiparsky's bounded VPs.

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[7] E.g., see Kiparsky (1998), (2001a), and the discussion of shifts in Chapter 2, Subsection 2.3.4.2.

1.3.10. Some more terminological clarifications: telic, delimited, perfective

1.3.10.1. Delimitedness in Tenny (1994)

Another approach discussed in this dissertation, Tenny (1994), discusses the data and aspectual phenomena basically in terms of what is defined in Verkuyl at the level of inner aspect. Tenny's description of delimitedness is presented in the following quotation (2).

(2)

> Delimitedness is the aspectual property that leads us into the nature of the syntax/lexical semantics interface. Delimitedness refers to the property of an event's having a distinct, definite and inherent endpoint in time. The sentence *John consumed an orange,* for example, describes a delimited event, since the consuming of the orange requires a certain amount of time, and has a definite endpoint; whereas the sentence *John slept* does not describe a delimited event, since sleeping is something that can go on for an indefinite period of time. Tenny (1994:4)

Thus, basically, Tenny (1994) means by her term "delimitedness" an aspectual lexically encoded property that determines syntactic properties (having a direct internal argument). Delimitedness is a property of events, but it is also seen as a lexical property, since lexical items refer to events.

Tenny is a relevant source, since she has a clear standpoint about Finnish. She describes Finnish as a language where delimitedness is grammaticalized in object case. By extension, the grammaticalization of delimitedness would also be her claim about Estonian; this dissertation agrees with this claim. However, if a semantic distinction is grammaticalized, it is problematic to regard it simultaneously as a lexical distinction. Therefore, this dissertation does not regard delimitedness (boundedness) that emerges in sentences with total objects (or adjuncts) as a purely lexical property. This dissertation adopts Tenny's method of studying delimitedness in terms of sentences, but here, a related term "boundedness" is applied.

Tenny's account of predicates that refer to events that are "delimited" is discussed in Chapter 4. It is an account of linking properties of a subset of [+ADDTO] verbs that yield Verkuyl's [+T] VPs and is closer to those verbs that have the feature [+B] in terms of Kiparsky (1998).

1.3.10.2. The Vendler-Dowty classification

In addition to the terms "terminativity" and "telicity", aspectual phenomena are frequently characterized in terms of Vendler's or Dowty's classification (Vendler 1957, Dowty 1979).[8] Vendler's classification distinguishes states (e.g., as described by the predicate *know the answer*), activities (e.g., *run*), accomplishments (e.g., *buy a book*) and achievements (e.g., *reach the top*, see Vendler 1957, Dowty 1979). This dissertation adopts the Vendlerian classification for a more thorough description of verb classes (Chapter 3, Section 3.2). Several tendencies of object case behavior divide over natural classes of verbs according to this classification. Other case related facts suggest that one verb can be crosslisted in many aspectual classes, since a verb can express many event types.

1.3.10.3. Telicity and atelicity

This dissertation contributes data that show the problems of encoding telicity in the lexicon. It also proposes an approach where those problems find a solution. Here a further specification of the term "(a)telicity" is in order. The term pair "(a)telicity" is used with varying content and formal rigor across theories for characterizing verbs, situations, events, and sentences that contain a set terminal point, an endpoint, a goal, a culmination, or a result (Krifka 1992, Comrie (1976:44-45), Depraetere (1995), Dahl (1984)). Here, the term "telic" is used for sentences that describe an event that has "a set endpoint" (Krifka 1992, see Section 7.3.1.2.) and that is "non-divisive" and "non-cumulative" (Kiparsky 1998). These terms are further discussed in Chapter 7. Here, differently from most approaches, Estonian transitive verbs do not encode telicity in their lexical entries. Some transitive verbs can be regarded as telic by virtue of their ability to appear in sentences that describe telic events; this ability is encoded in the lexical entries. However, this dissertation regards some expressions containing certain measure phrases also telic, as discussed in more detail in Chapter 7.

In the chapters preceding Chapter 7, those accounts are discussed where VPs or verbs describing states and activities are referred to as atelic, and VPs and verbs describing accomplishments and achievements are referred to as telic. If a verb and its arguments cannot describe an event with a set endpoint, a built-in endpoint, it is considered atelic. For instance, "know the answer" is considered an atelic predicate, while "eat a cake" is considered telic even if "eat" as a verb can refer to an activity.

"Culminational" is taken to be a wider term that will not be used (Moens and Steedman 1987). Three types of lexical encoding of culmination are dealt with in my approach: a final culmination of a change, non-final culmination, and a culmination with no change. The first two types of culmination (culminations of a change) are phenomena that correspond to the boundability of the first, scale "tier" in my approach; the third type (culmination, or rather "point" without change) is a boundedness phenomenon of the second, "span" tier.

1.3.10.4. The distinction perfective-imperfective: Smith, Dahl, Comrie

From the discussion of Estonian sources below it will become evident that some sources use the terms telic-atelic and perfective-imperfective as near synonyms. Some use them roughly in terms of the concept "perfective" being in some way dependent on or including the concept "telic". Smith (1991) is an approach where these two terms are distinguished. Both terms have a central role in her account. Smith (1991) describes the distinction perfective-imperfective in terms of a separate aspectual viewpoint level next to the situation level that is described in terms of telicity.

My account defines perfectivity via the notion of the failure of divisive reference as described in 1.1. A related definition, which uses the notion of temporal intervals, is described by Kiefer in terms of events: "An event is perfective only if the activity, happening or process pertains to the whole described temporal interval... the given temporal interval has no subinterval or part for which it would be valid" (Kiefer s.d.:276). Here, perfectivity is understood as a property of clauses or sentences, and it can be encoded in lexical entries. The discussion of Estonian sources in Chapter 2 presents Dahl and Comrie, who also use a distinction of telic and perfective in their terminology.

1.4. The organization of the topics in this dissertation

The organization of the dissertation follows here. Chapter 2 reviews earlier Estonian sources. Chapter 3 presents an aspectual classification of verbs and their relation to object case together with some relevant aspectual phenomena. Chapter 4 discusses some problems of lexicon-syntax interface, an aspectual interface. Chapter 5 discusses aspectual particles.

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[8] The most recent account of verb classification and tests in those terms is in Rothstein (2004).

Chapter 6 introduces the approaches to case and semantic case in LFG. Chapter 7 contains an account and a discussion of the data about the interaction between Estonian verb classes, case, and particles.

Chapter 2. Estonian sources

2.1. Introduction

Chapter 2 of the dissertation presents the earlier approaches to Estonian aspect and lexicon. The purpose of discussing those sources is the following:

1) To show the multiple approaches to the relation between aspect and verbal lexical entries. The opposite views stem from the lack of consensus on what are considered the characteristics of an item of the lexicon, on the one hand, and the lack of consensus on what is considered aspect, on the other hand. Therefore, linking these two notions has been difficult.

2) To introduce a wider coverage of data on the topic, and to introduce the sources for the non-Estonian reader.

3) To identify clearly the covered, but also the missing and less defined parts of Estonian works on aspect and items of the lexicon in order to proceed.

The relevant insights gained from earlier works are presented in the following points:

a) Object case partly depends on verbal lexical semantics.

b) Aspect is not considered to have developed into a grammatical category.

c) These conclusions, however, are puzzling since they are not reflected in most writings that discuss these phenomena, puzzling for the following reasons:

d) The object case and particle phenomena are described mainly in terms of aspect (perfectivity)

e) Verbs are described as aspect verbs, or in terms of perfective/imperfective, telic/atelic etc

f) Particles or sentences are described as perfective.

   This Chapter is organized as follows. Section 2.2 presents the views on aspect and boundedness. Section 2.3 reviews the principles for earlier verb classifications and verb classes. Section 2.4 is a conclusion.

2.2. Approaches to aspect and boundedness in Estonian sources

Many previous sources agree that the category of aspect is missing in Estonian. However, object case alternation phenomena are frequently described in terms of aspectual terminology. The exact aspectual phenomenon that lies behind the alternative object cases is described differently across sources. This Section introduces these earlier points of view on aspect in

Estonian. The most frequently used terminology used for discussing the non-NP related case assignment factors of the Estonian object case includes boundedness, perfectivity, resultativity, and terminativity and their opposites, non-boundedness, imperfectivity, irresultativity, durativity or coursiveness. This terminology and its relation to the phenomena as discussed in earlier Estonian sources is the subject matter of the following subsections. The aim of this subsection is also to introduce the facts about aspect, Aktionsart, object case alternation, verbal particles, and lexical semantic verb classes as they are presented in earlier sources and as they are necessary for further discussion.

2.2.1. Discussions around the category of aspect in Estonian

Rätsep (1957), contrasting Estonian with Russian, establishes the lack of the morphological category of aspect in Estonian. The following are Rätsep's words (1), provided with my translation.

(1)

> The morphological category of aspect is missing in the Estonian language. The means used for expressing the completion or incompletion cannot be united into one grammatical category with one grammatical meaning. Those meanings are either just subsidiary shades of meanings of other meanings, or they [the meanings of (in)completion] are conveyed by means of purely lexical means. (Rätsep 1957:78)

Rätsep's article concentrates on pointing out that the ways of expressing aspect in Estonian are not comparable with the grammatical level of the Russian morphological verbal aspect. His main argument is that, unlike Russian, Estonian verbs do not have regular aspectual morphology. There are many ways to express aspect in Estonian, but they do not qualify as the grammatical category of aspect. He gives a parallel example from another grammatical area, the grammatical category of gender (2).

(2)

> The lack of the grammatical gender category does not prevent us from distinguishing the biological male/masculine and female/feminine gender by lexical and derivative means, cf. *singer* (male or neutral) (sing+*ja*) - *singer* (feminine, female) (sing+*janna*)…The potentiality, possibility of action for which the contemporary standard [Estonian] language has no morphological form, can be also expressed by various lexical means. (Rätsep 1957:78)

Rätsep points out that the existence of three past tenses (the simple past, the present and past perfect) is a compensating grammatical mechanism that bears relation to the fact that the

morphological category of aspect has not developed in Estonian. In this writing, Rätsep analyses the perfectivity or "completedness" ("*lõpetatus*") oppositions as a subsidiary meaning. Rätsep argues in (3) that the object cases primarily reflect the opposition of totality and partiality.[9]

(3)
> The subsidiary meanings of completedness/finished nature and the not completed/finished nature is contained also in our object category. Here, these meanings are a subsidiary phenomenon to the main partial or total property of the object. Rätsep (1957:76)

The object case oppositions in (4)-(7) illustrate what Rätsep had in mind discussing the basic and subsidiary phenomena. The parallels between the object case, and the completion or finishing of the action are directly derivable from the properties of the object referent in finishing the work in (4) and (5) and in sewing the dress in (6) and (7).

(4)
Kirjanik	*lõpetas*	*oma*	*teost.*
Writer.nom	finish.3.sg.past	own	work.part

'A writer was finishing his work.'

(5)
Kirjanik	*lõpetas*	*oma*	*teose.*
Writer.nom	finish.3.sg.past	own	work.gen

'A writer finished his work.'

When the object referent does not exist yet, when only parts of it exist, the action is not finished either and the partitive is used (4), (6). When the object referent exists as the result of the action, the action is finished and the genitive object case is used (5), (7).

(6)
Ema	*õmbleb*	*talle*	*kleiti.*
Mother.nom	sew.3.sg.past	s/he.all	dress.part

'Mother is sewing a dress for her.'

(7)
Ema	*õmbleb*	*talle*	*kleidi.*
Mother.nom	sew.3.sg.past	s/he.all	dress.gen

'Mother sews a dress for her.'

In these examples, the aspectual meaning is considered a subsidiary meaning, a meaning that is derived from the total and partial properties of the object referent as Rätsep (1957) sees it.

Kont (1963:187), however, notes that the object case is related to the affectedness of the object and the progress of the event. He writes that on the basis of the forms of the nominal object in the Baltic-Finnic languages, it is possible to distinguish whether part of the object is subsumed to the action of the verb and the action is temporally

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[9] Many teaching materials (e.g., Kippasto and Nagy 2002) have found it useful to introduce object case alternation facts with discussing the nominal reference part-whole opposition before the aspectual uses. This tendency is not restricted to schoolbooks (see also as an instance Harms 1962:131).

unfinished/uncompleted and from the viewpoint of a result, unaccomplished, unachieved; or the whole object is subsumed in the action and the action is temporally completed or completable and from the viewpoint of result achieved or achievable.

Rätsep discusses "prefixal adverbs" (*derivatsioonilisi tähendusi kandvad prefiksilised adverbid*, 'prefixal adverbs carrying derivational meanings') that "emphasize the perfectivity of the activity" and their contribution to aspect. Discussing sentences (8) and (9) with and without the prefixal adverb, he writes: "The prefixal adverbs do not refer to a distinct completed/finished nature, but rather emphasize the completed/finished nature of the action as already expressed by the total object" (Rätsep 1957:76). The prefixal adverbs are seen to emphasize the perfectivity and the completed action that is expressed already by the total object as in (8).

(8)
Ma   tegin   selle   töö   ära.
I.nom   do.3.sg.past   this.gen   work.gen   *ära*
'I did the work.'

The sentence is seen to have the same meaning without the adverb, as in (9).

(9)
Ma   tegin   selle   töö.
I.nom   do.3.sg.past   this.gen   work.gen
'I did the work.'

Perfectivity is the secondary meaning component next to the meaning component of direction of the activity (10) or the manner of activity (11) as described by Rätsep (1957:76-77).

(10)
Laps   viskas   raamatu   maha.
Child.nom   throw.3.sg.past   book.gen   ground.ill/ptcl
'The child threw a book on the ground.'
(11)
Uks   tehti   lahti.
Door.nom   make.impers   open
'The door was opened.'

Finally, Rätsep discusses two ways and two types of verbs that lexically express aspect. There is a group of verbs that are seen to lexically contain temporal boundaries for the beginning or end of the action (*lõppema* 'end', *surema* 'die', *närtsima* 'wither') or no temporal boundaries (*sööma* 'eat', *jooma* 'drink', *naerma* 'laugh', *laulma* 'sing'). Other verbs induce temporal initial or final boundaries in verbal complexes (e.g., *lõi rohetama* 'began to be green').

2.2.2. Lexical aspect, terminative, durative: Pihlak (1982, 1985a, 1985b)

Pihlak studies aspect as a phenomenon of lexical constructions and several other aspectual issues. In contrast to Rätsep (1957), Pihlak (1982, 1985a) argues that there is proof of the existence of the category of aspect in Estonian. However, the range of phenomena he concentrates on is different from that of Rätsep. It is mainly the verbs and verb constructions (complex and periphrastic verbs) that Pihlak compares with Russian verbs and not the productive verbal aspectual morphology that Rätsep was searching for and missing in Estonian. Studying the Estonian complex and periphrastic verbs, that is, complexes consisting of a verb or an adverb-like element and a light verb, Pihlak (1985a) claims that Estonian verbs reveal aspectually similarities with Russian. Pihlak (1982), studying the relation between the Russian aspect and Estonian tense, turns the reader's attention to several grammatical aspectual phenomena. For instance, the periphrastic progressive *mas*-infinitive construction expresses aspectual imminence, the meaning of imminent future in the present or past ("*vahetu tulevik olevikus/minevikus*," immediate future in the present/past (Pihlak 1982: 99), as in *pomm on/oli lõhkemas* 'the bomb is/was exploding' (See Chapter 2 Section 3, more on progressive). Pihlak considers examples of this kind as a proof of the existence of the category of aspect in Estonian. Pihlak (1985b) describes the Estonian aspectual data in terms of terminativity and durativity.[10]

2.2.3. Aspect, Aktionsart, boundedness: the Grammar of Estonian Standard Language (Erelt e.a.1993)

2.2.3.1. Aspect and Aktionsart

The Grammar of Estonian Standard Language (Erelt e.a.1993, henceforth *EKG II*) discusses aspect, Aktionsart and object case. Aspect and its relation to object case is mainly discussed in terms of boundedness and this topic will be presented after an introduction of aspectual terms as seen in *EKG II*.

Aspectual phenomena are divided between aspect and Aktionsart in *EKG II*. *EKG II* (1993:22-24) defines aspect as a relationship between the development of the situation and the viewpoint expressed in the sentence. Aktionsart (*tegevuslaad*) implies the typical development and temporal structuring of the activity. *EKG II* (1993:22-23) defines the *dynamic/static quality* and *durative/momentary* as basic categories for Aktionsarts. As more

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[10] Kont (1963) discusses the phenomena in terms of terminativity and coursivity or in terms of resultativity, and at times, perfectivity (Kont 1963:53).

restricted categories, the punctual, iterative, continuative, semelfactive, and progressive Aktionsarts are described. Some Aktionsarts are associated with certain morphemes, for instance, the semelfactive Aktionsart is realized by the morphemes (*-ata-, -ahta-, -a-*), the iterative and frequentative ones by the morphemes (*-le-, -skle-, -dle-, -tle-, -ke/gi-, -u-, -i-*); other morphemes are associated with the continuous Aktionsart, for instance, *-ne-, -tse-, -uta-, -nda-, -rda-, -lda-, -ise* (cf. also Sulkala (1996) on the relation between verbal morphology and Aktionsart).

2.2.3.2. Boundedness and object case

*EKG II'*s Section on objects and object cases includes a considerable amount of discussion on aspect. Discussing this source, I present more details than those strictly to do with aspect as defined in *EKG II* (i.e., the relationship between the development of the situation and the viewpoint) as being about the two opposite types of object case if these details are relevant for understanding the relation between aspect and object case. I add some corresponding ungrammatical examples and the possible object case variation data for *EKG II's* claims for the sake of clarity. In *EKG II*, the aspectual properties of the verb are considered the primary but not the only determiner of the object case (*EKG II* 1993:49). The source describes the object case conditions and aspectual interpretations of sentences. The aspectual properties of verbs are defined in terms of *boundability*. Boundability is also a property of activities or situations that the verbs stand for, and its value is determined on the basis of whether the activity expressed by the verb:

1) has an inherent boundary (a result, a temporary boundary), so that the action or activity can, although need not, terminate with reaching that boundary, or

2) the action or activity does not have any such (possible) boundary.

The first type of action or activity is boundary-enabling or boundable, the other type of action lacks the possibility of a boundary, being called a non-boundable action. The object case alternation occurs in affirmative sentences with verbs that denote an action that enables the realization of a boundary (*EKG II* 1993:51). Thus the description connects verbs with situations they describe, and the situations are considered to be best describable in terms of their boundability. Negative sentences occur usually with partial objects.

The form of the object is further determined by the following factors (*EKG II* 1993:51):

1) the boundedness of the action (resultativity or perfectivity) or the unboundedness of the action (the action is vague about its result or finishedness/endedness/completedness)

2) the quantitative boundedness or unboundedness of the object matter ("objektiese")

3) the presence of certain devices of attaching the boundary to the activity, "perfective affixal adverbs",[11] or lative stative adverbials (*latiivne seisundimäärus*), final or purpose adverbials (*otstarbemäärus*), or lative locative adverbials.

Thus, a sentence expressing a non-boundable action can have only the PO (partial object, object in the form of an adjective or a noun in partitive case). See the contrast in examples (12) and (13).

(12)
Ma   alahindasin   Peetrit.
I.nom   underestimate.1.sg.past   Peter.part
'I underestimated Peter.' (*EKG II* 1993:49)

Thus, the total case, the morphological genitive, is ungrammatical with verbs of non-boundable action (13)[12]:

(13)
*Ma   alahindasin   Peetri.
I.nom   underestimate. 1.sg.past   Peter.gen
Intended to mean 'I underestimated Peter.'

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[11] This dissertation calls the phenomenon an aspectual particle (generally, and if the relation to the verb is loose) or an aspectual verbal particle (if the particle is the lexical part of the verb). In the aspectual and verb semantic context of the dissertation, this phenomenon is frequently called simply "particle", since other types of particles (several discourse particles) are not discussed here. Different sources have called the linguistic expressions in various connections "adverbs" (*adverb*, Rätsep 1978:27), "perfective adverbs" (*perfektiivsusadverb,* Rätsep 1978:32), verb complements contributing to the resultative meaning (*resultatiivset tähendust lisavad laiendid*, Rätsep 1978:222), "affixal adverbs expressing perfectivity, adverbs that provide a possible boundary" (*perfektiivsust väljendavad afiksaaladverbid; piirivõimalust loovat või otseselt piiritlevat funktsiooni täitvad määrused*, (*EKG II* 1993:51)). Nurk writes, "affixal adverbs expressing perfectivity denote delimitation or at least the possibility of delimitation… the most widely spread adverb of perfectivity is *ära* 'away, off, out' etc, which forms numerous regular phrasal verbs including those which fulfil only the task of delimitation of the activity...the delimitive aspect can most unambiguouslybe indicated by the adverb *ära*" (Nurk 1996:64). Other terms used are auxiliary adverbs (*abimäärsõna*, Erelt et al 1997:151), affixal adverbs (*afiksaaladverb*, Rüütmaa (1998:7); Erelt e.a. (1995:33)), verbal prefixes (*igekötő*, Lavotha (1960:86); Pusztay (1994:119-124), Bereczky (2000: 83) *verbiprefiks,* Kreinin and Török (1999:4)), preverbs (Ackerman and Moore 1999, 2001; *Präverb,* Raun (1952:243)), (verbal) particles (Harms (1962: 110), Metslang (2001:1); *Partikel*, Hasselblatt (1990:48)), pseudo-adverbials (*pseudoadverbiaal,* Rajandi and Metslang (1979:36)*,* aspectual adverb (*aspektiadverb,* Hint (1995:127)), subsidiary words, 'by'-words (*kõrvalsõna* 'adverb', Kure (1950:57, 215), prefixal adverbs (*prefiksaaladverb,* Kure 1950:215), *prefiksilise iseloomuga adverbiaal* 'adverbial with the character of a prefix ' Kont (1963:91) (Kont (1963:96) remarks that from among the Baltic Finnic languages, Estonian is the richest in terms of the modifiers (*laiendid*) the terminating the activity of the verb.

[12] The fact that the typically partitive verbs can be used with the total object is recorded in Raun and Saareste (1965). They discuss a use of the typically partitive verb *armastama* 'love' with the total object ("genitive complement") such as the in sentence *ma armastan selle inimese* 'I love this.gen person.gen' "does not mean anything or may be vaguely associated with killing somebody by love" (Raun and Saareste 1965:33). These authors note that necessarily the predicate is reanalysed as telic in order to be able to give an interpretation to the sentence with the total object.

A sentence expressing a boundable action can have both, the TO (total object, object in the form of noun, adjective in the genitive or nominative case) and the PO (partitive object, object in the form of noun, adjective in the partitive case). See examples (14) and (15).

(14)
Ma   ehitan   suvilat.
I.nom   build.1.sg   summer cottage.part
'I am building a summer cottage.'
(15)
Ma   ehitan   suvila.
I.nom   build.1.sg   summer cottage.gen
'I'll build a summer cottage.' (*EKG II* 1993:49)

The boundary can be "attached to an activity" (*EKG II* 1993:51), or an activity can be bounded by "perfective affixal adverbs", such as *ära* 'off, up, away,'(16) *läbi* 'through', *minema* 'away', *maha* 'down', (17) etc. Partial objects are problematic with these elements that are referred to as 'bounders', presented in (18) from *EKG II*.[13]

(16)
Mari   viis   raamatu   ära.
Mari.nom   bring.3.sg.past book.gen   away/ptcl
'Mari brought the book away.' (*EKG II* 1993:51)
(17)
Tuul   oli   vana   puu   maha   murdnud.
Wind.nom   be.past old.gen   tree.gen   down/ptcl   break.act.ptcpl
'Wind had blown down the old tree.' (*EKG II* 1993:51)
(18)
?Tuul   oli   vana   puud   maha murdnud[14]
wind.nom   be.past old.part   tree.part   down   break. act.ptcpl
'Wind had been blowing down the old tree.'

EKG II writes that a similar function of "inner bounding" is filled by "lative situation adverbials" (*latiivne seisundimäärus,* (19)), "purpose adverbial" (*otstarbemäärus,* (20)), or "lative locative adverbials" (21) (*EKG II* 1993:51).

(19)
Õmbleja   hammustas   niidi   katki/puruks.
Seamstress.nom   bite.3.sg.past   thread.gen   broken
'The seamstress broke the thread by biting.'
(20)
Ta   saatis   poisi   pesema.
He.nom   send.3.sg.past boy.gen   wash.mainf
'He sent the boy to wash.'

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[13] The statement from *EKG II* could be revised. I classify the use of the partitive object with the bounders infelicitous but not ungrammatical for many speakers. Also, other sources have recorded the co-occurrence of particles and partitive objects. The fact that the use of the partitive objects with the particle is not a recent trend in Estonian is confirmed by the recording of sentence with the particle *ära* (see Chapter 5 for details on this particle) in an early generative Estonian grammar by Harms. Harms (1962:131) discusses under "'Aspectual' Partitive Object" examples such as *ma võtan raamatut ära* 'I am taking the book away' with the particle *ära* and the partitive object.

[14] The asterisk * is used for ungrammatical sentences. The hash mark # is used for semantically unacceptable sentences, given a particular predicate that is illustrated with the sentence. The question mark is used for context-dependent, pragmatically infelicitous sentences. This sentence, for instance, is felicitous in a fairy tale.

(21)
Poiss   aitas   vanakese   tuppa.
Boy.nom   help.3.sg.past old person.gen room.ill
'The boy helped the old person into the room.' (*EKG II* 1993:51)

The nominative or genitive object is used when both the action and object matter are bounded (*EKG II* 1993:51). What counts as bounded are singular count nouns, quantifier-headed phrases, *pluralia tantum,* and number phrases, and what are called conventionally delimited mass nouns, that is, mass nouns that are understood to refer to a quantity of a material or liquid. Singular count nouns are bounded, cf. (22).

(22)
Ta   luges   raamatu   läbi.
S/he.nom   read.3.sg.past book.gen   through/ptcl
'S/He read the book through.'

Pluralia tantum as in (23) are considered an example of bounded:
(23)
Poiss   ostis   malendid.
Boy.nom   buy.3.sg.past chess piece.1.nom.pl
'A/The boy bought a chess set.'

Conventionally delimited mass nouns are bounded, as in (24).

(24)
Poiss   sõi   supi   ära.
Boy.nom   eat.3.sg.past soup.gen   up/ptcl
'A/The boy ate the soup up.'

Number phrases count as bounded; the numeral (except "one", which is case marked with genitive) is marked with the nominative and the nouns and adjectives with the partitive case, cf. (25).

(25)
Tõin   sulle kaks   saia.
bring.1.sg.past you.all two.nom   bread.part
'I brought you two loaves of bread.' (*EKG II* 1993:51)

Partial object, that is, an object marked with the partitive, is used if the action, the object matter, or both are unbounded (*EKG II* 1993:52). If the object matter is "quantitatively bounded", the sentence with the partitive object expresses the unboundedness of the action. It does not follow from the use of the partitive that the action has lead to any result or it is finished, neither does it follow that it has not lead to any result, nor that it is not finished, as in (26) (*EKG II* 1993:52).

(26)
Poiss   joonistas   päikest.
Boy.nom   draw.3.sg.past sun.part
'A/The boy drew the/a sun, a/the boy was drawing the/a sun.' (*EKG II* 1993:52)

If the action is clearly bounded, the sentence with a PO denotes the non-boundednes of the object matter. In this case, the object can only be a plural count noun ("bare plural") as in (27) or a mass noun as in (28).

(27)
Ta	*leidis*	*pööningult*	*vanu*	*kirju.*
S/he.nom	find.3.sg.past	attic.abl	old.part.pl	letter.part.pl

'S/he found old letters in the attic.' (*EKG II* 1993:52)

(28)
Ta	*viis*	*vanaemale*	*sünnipäevaks*	*mett.*
S/he	bring.3.sg.past	grandmother.all	birthday.transl	honey.part

'He brought honey to grandmother for her birthday.'(*EKG II* 1993:52)

An example with the partitive object where both the object matter and the action are both unbounded is the following sentence (29) in *EKG II*. The resultative phrases are not felt to contribute to the boundedness of the action:

(29)
Ema	*rullis*	*tainast*	*õhukeseks,*
mother.nom	roll.3.sg.past	batter.part	thin.transl

lapsed	*hõõrusid*	*mune*	*vahule.*
child.nom.pl	rub.3.pl.past	egg.part.pl	foam.all

'Mother was making/rolling the dough flat and thin; children were whipping the eggs.'
(*EKG II* 1993:52)

EKG II (1993:52) discusses also several cases where the object case can be either total or partitive. I divide the cases in three

1) the situation (*tegevus*, 'action') is classified differently with regard to its boundedness

2) the situation (action) is classified differently as to its boundedness with regard to the result of ambiguity in the negative and affirmative content of the sentence

3) there is free variation according to the information conveyed by the sentence

I do not discuss these cases further here.

2.2.3.3. A summary of *EKG II*'s account on aspect and object case

EKG II discusses object case in terms of boundedness and perfectivity. The relation between boundedness and perfectivity is not clearly defined, and deserves to be clarified later, but there are reasons to assume that (at least) sentential boundedness is assumed to be the relevant component that determines perfectivity (cf. also subsection 2.6.4, Sulkala (1996:210)). Verbs can express non-boundable activity or boundable activity; and sentences containing verbs expressing boundable activity can form perfective, that is, bounded sentences. Objects can be

non-bounded or bounded. The composition of boundedness of the sentence and the genitive or nominative object case assignment can be summarized on the basis of *EKG II* as follows in Table 2.2.

Table 2.2. Verbs, objects, boundedness, and object case

Combination	Effect
(i) verb of boundable activity + bounded object	→ bounded, g-n-obj
(ii) verb of boundable activity + non-bounded object	→ bounded, p-obj
(iii) verb of non-boundable activity + bounded object	→ non-bounded, p-obj
(iv) verb of non-boundable activity + non-bounded object	→ non-bounded, p-obj
(v) verb + particle/complement + object	→ bounded, (g-n-obj)

According to generalizations extracted from the *EKG II*, the necessary precondition for the boundedness of the sentence is the boundability of the activity that the verb denotes (the exact verb classes are discussed below in Section 3). Therefore, only verbs expressing boundable activities can yield bounded sentences and genitive or nominative objects. The first two lines of the summarizing schema, (i) and (ii), demonstrate that the boundedness of the object noun does not have any impact on the boundedness of the sentence. If boundedness is roughly equal to [+T] in Verkuyl's system, then these data run counter to how Verkuyl's plus-principle discussed in the Introduction would compose the aspectual value of the VP in (ii). Non-quantized, non-bounded objects appear in bounded, +T VPs. However, the boundedness of the object influences the object case: bounded objects are in genitive or nominative (i); non-bounded objects are in partitive (ii). Verbs denoting non-boundable activities do not yield boundedness regardless of the object noun's boundedness as the line (iii) and (iv) demonstrate. The last line (v) of the summary above shows that some verbs can combine with verbal particles and special bounding complements so that boundable verbal complexes are formed. Consequently, these verbal complexes are able to yield bounded sentences with genitive or nominative object case.

The phenomena that are described here in terms of boundedness, object case, and verbal particles (bounding and perfective adverbials) have been discussed in different terms, especially, in terms of resultativity, in earlier Estonian sources. In the following subsections, the matters of aspect and object case are presented as they are discussed before *EKG II*.

2.2.4. Resultativity: Tauli (1968, 1983)

Tauli (1968, 1983) does not specifically refer to the term "aspect" in his work on object case. Instead, he refers to the oppositions that have an impact on object case in terms of "resultativity" (for verbs and for sentences) and "wholeness" (for object nouns) in his description of the factors that determine object case in Estonian. Verbs are divided into resultative or irresultative according to what they express in sentences: resultative or irresultative. Quoting Tauli's words: "Ot [i.e., total object, the object in genitive or nominative case] occurs at the same time as one expresses the resultativeness of the action (result or aim) and the referent expressed by the lexeme of O is conceived as a whole. In other cases Op [object in partitive case] occurs" (Tauli 1983:45). Since verbs are called resultative or irresultative according to their possibilities of expressing a result, but this possibility is either realized or not, the obvious mismatches in the verb-sentence resultativity lead Tauli to propose a separate verb class for the "mismatching" verbs. Tauli (1968:217), thus, distinguishes three verbal classes that differ in resultativity and, consequently, also in their behavior in terms of object case. Tauli's classes will be discussed in further detail in Section 3.2; here I present his principles for a division into classes.

1) Resultative verbs can express resultativity without any adverbial; their object can be in the genitive and nominative case or in the partitive case.

2) Irresultative verbs do not express resultativity; their object is always in the partitive.

3) A third set of verbs is irresultative, but in combination with lative, translative or other adverbials they can express resultativity and their object can be in genitive or nominative. Their object can be in genitive or nominative only in combination with an adverbial, otherwise, the object is in the partitive.

Also, Tauli observes the following three facts about object case and what are called 'adverbial' combinations:

a) The mere presence of the special type of adverbial does not automatically trigger total objects. Tauli lists some combinations of adverbials and verbs, the object of which is always partitive: *ette heitma* 'reproach', *taga nutma* 'mourn', *pealt vaatama* 'watch', *imeks panema* 'wonder, be surprised', *silmas pidama* 'mean, consider,' *kellekski pidama* '(mistakenly) regard as someone'(Tauli 1968:218);

b) Tauli (1968:218) establishes that in all types of verbs that occur in sentences with a total object, the verb-object complex usually combines with the special adverbial regardless of the original resultativity or irresultativity of the verb in question;

c) On the other hand, even in combination with an adverbial, the object can still occur in the partitive, "if resultativity or totality [i.e., that the object referent is, in Tauli's words, 'encompassed totally'] is not being expressed" (Tauli 1968: 218).

In sum, the object NP-properties aside, Tauli considers the expressed resultativity of the sentence as the term that can best describe what underlies the object case alternation in Estonian. The verbs' resultativity properties can be changed. This can be achieved by means of special adverbials, verbs' or adverbial-verb complexes' resultativity properties, according to the resultativity properties of the action described in the sentence. What exactly qualifies as a result that can lead to a total object case and what resultativity is a category of needs to be clarified further.

2.2.5. Resultativity, perfectivity: Rätsep (1978)

The review of Rätsep's extensive work on the Estonian lexicon focuses here around the following questions: his terminology, the role of object case in his verb classification, his views on the elements that contribute to resultativity and their relation to object case. As opposed to Tauli's two terms ("wholeness" and "resultativity"), Rätsep (1978) basically uses three terms for explaining his choice between the object cases, adding the aspectual term of perfectivity to the list of concepts used by Tauli:

1) resultativity
2) totality
3) perfectivity.

Occasionally, the resultative verb data are described in terms of the opposition between "coursive" and "terminative". Verbs (exact classes are presented below in Section 3.2) are described in terms of resultativity. Rätsep writes (in my translation): "Depending on the character of the action expressed by the verb, we speak of three-case object verbs as of resultative or terminative verbs and of partitive object verbs as irresultative or coursive verbs" (Rätsep 1978:221). Differently from the boundedness-based approach of *EKG II* and similarly to Tauli (1968, 1980, 1983), Rätsep distinguishes a third verb class as a dual, "ambiresultative" class. Characterizing the resultativity properties of one of the verbs from

this class in Rätsep's words, "Verbs of the type *veeretama* '(make something) roll' are irresultative in their lexical meaning…But their meaning contains an element of resultativity, since when those verbs combine according to their syntactic pattern with a resultative complement, the content of the sentence becomes resultative" (Rätsep 1978:222). Also, there are verbs that occur with genitive and nominative objects only if they are complemented by a resultative phrase, which can be omitted if the result or bound is inferable from the context. Rätsep also notices that some verbs (*viima* 'bring, take, move', *valama* 'pour') require an explicit bound in the same clause or in the preceding context in addition to the nominative/genitive object.

Rätsep (1978) differs from Tauli (1968) and *EKG II* on three main points concerning the bounds or resultative elements, that is, the elements that frequently co-occur with the N+ngp, that is, total and partitive object types. First, he gives a detailed list and description of these bounds or resultative elements including word category, morphological case, postpositions, etc. Second, he divides the resultative elements in two with regard to their lexical relation to the verb. Third, he defines the semantic content of the elements under discussion. Rätsep (1978:222), thus, is specific about the form of resultative elements.[15] These elements are seen to be similar to the adverbial parts of regular complex or compound verbs, such as *sisse/välja/alla* 'in/out/down' in *sisse/välja/alla tulema* 'come in/out/down', since both are regarded to be complements of the verb ("verbi seotud laiendid*"*).

Second, while Tauli (1968) is rather inarticulate about the ways these special adverbs (such as in *sisse/välja/alla tulema* 'come in/out/down') combine with verbs in resultative sentences (see previous subsection 2.4, points (a) and (b))[16], Rätsep is specific in this respect. Rätsep (1978) divides the elements that contribute to the resultativity of the lexeme (his verb entry with all arguments and typical adverbials included) into two:

1) (resultative) complements ("*laiendid*") of the verb

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[15] Here follows Rätsep's list of the forms of these elements as he formulates them: a noun in illative (the case expressing the content covered approximately by the English prepositions *into, in, to*); in elative (from, of, out of); in allative (for, to, onto, on); in ablative (from); in translative (into, in a certain state); an adjective in translative (into, in/to a certain state); a noun in terminative (up to, until, till); a noun with the postposition *eest* (for, from in front); *jaoks* (for some purpose or for somebody); *järele* (to - after); *kallale* (to affect, to something or someone, as of attacking); a noun with the postposition *käest* (from (hand)); a noun with the postposition *peale* (onto); a noun with the postposition *sisse* (into); a noun with the postposition *taha* (behind); a noun with the postposition *tarvis* (for (the purpose of)); a noun with the postposition *vastu* (against, towards); a noun with the substitution class of extralocal, intralocal or translocal directional; with an intralocal modal (e.g. adverb(ial)s such as *laiali* 'apart'); with a perfective adverb.

[16] However, see Tauli (1972:118, 126-128) on more issues on compound verbs in Estonian. See Hasselblatt (1990:39) on the use of Estonian terminology about several lexically restricted or opaque combinations of verbs and particles, etc.

2) the non-verbal parts of unique complex verbs *(ainukordsed ühendverbid,* Rätsep 1978:32). The latter belong to "the verbal center" and the former do not belong to the verbal center; they are complements. Figure 1.1 presents Rätsep's partition of the elements contributing to resultative content of the sentence, that is, the elements that frequently co-occur with the N+ngp object types, as they are discussed up to now.

Resultative elements (Rätsep 1978)

1. complements
alla tulema 'come down'
kooli tulema 'come to the school'

2.elements that belong to verbal center
alla andma 'give up, surrender'
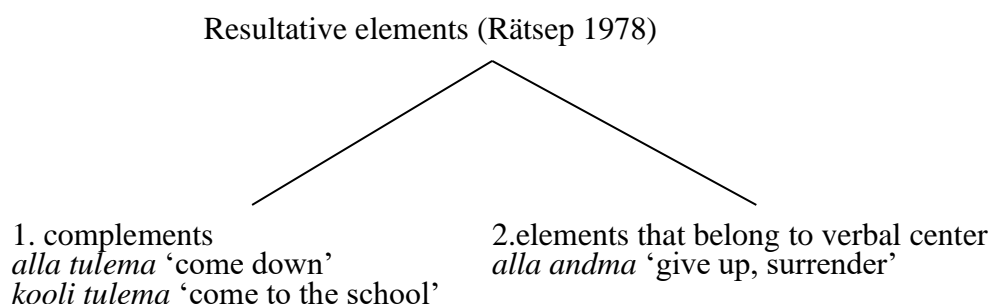
Figure 2.2. Rätsep's partition of the elements (elements contributing to resultative content of the sentence) that frequently co-occur with the N+ngp object types

Whether the element is a complement is tested by means of forming special questions in Rätsep (1978).[17] Thus, on the other hand, the second group of syntactically observable elements that contribute to the resultative content of the sentence are not complements but elements that stand in a different relation to the verb, in Rätsep's formulation, they "belong to the verbal center" (Rätsep 1978:28). Belonging to the verbal center means to be part of a unique complex verb (*ainukordne ühendverb*), and examples of unique compounds are *maha kirjutama* 'copy', *peale käima* 'insist', or *peale tungima* 'attack'. Thus, these are only non-compositional, opaque compounds. The distinction is, therefore, assumed to be semantic, but also syntactic. Rätsep's says, opaque compounds "form a syntactic unit on which the complements depend" (Rätsep 1978:28).

Third, regarding the semantic contribution of these elements, more specifically, that of resultative complements, Rätsep is again more specific than Tauli. The resultative complements and similar phrases are seen to contribute to what Rätsep calls the *resultative content*. In fact, the resultative content means the possibilities of the lexeme, that is, whether the lexeme contains the complement type N+ngp, and the concrete semantics of the form

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[17] If one can ask a special question about the element, then it is a complement. If a special question cannot be asked about the element (e.g., as in: I gave <u>up</u> the idea of finishing this sentence. #<u>Where</u> did you give this idea?), then the element belongs to the so-called verbal center.

understood in terms of perfectivity. Clarifying Rätsep's idea about the exact relation between *resultative content* and object case, I refer the reader to quotation (30) about the complement N+ngp. The complement N+ngp described in (30) has an atypical form in Rätsep's system. The following quotation presents how Rätsep envisages the relation between the factors determining the case assignment to this complement.

(30)

> N+ngp: Substantive in nominative or genitive or partitive singular; or nominative or partitive plural. This form class is an exception among other form classes, since many case forms are listed in this form class. The cases are not realized on the basis of substitution as in the case of substitution classes but, instead, partly on the basis of the so-called complementary distribution, that is, the case forms are complementary with regard to each other. Here, the choice of the form class does not depend on the semantics of the verb as a lexeme, as is the case with bound complements ['seotud laiendid'], but, instead, the choice from between the elements of the form class is determined by the verb's grammatical form (e.g., the presence of negation, imperative, etc.) or the semantics of the form (e.g., the presence of the feature /±perfective//±total/). Therefore, the meaning of the verb as a lexeme determines only the existence of the complex N+ngp, and not the choice of the concrete case. In a traditional grammar, this complex is called the 'three case object' (Rätsep 1978:40).

Thus, now I can list the factors that have a relation to case assignment matters in Rätsep:

1) The presence of a certain type of complement, N+ngp, in the lexeme. That is, the verb representation in the form of a syntactic pattern determines the possibility or impossibility of a case alternation; the lexeme in the given complement type does not determine the exact realization of the case of the complement.

2) Semantics of that specific form, described in features that directly determine case, such as /±perfective/.

3) Object noun semantics in terms of case determining features /±total/.

4) The presence of several other grammatical categories that determine case (and fall out of my study, since they are not aspect or lexicon related).

In addition to object case, Rätsep's patterns also register the possible and obligatory partitive subjects. However, the exact conditions of the alternation of (what is considered by me) the subject is not provided, therefore, here, the discussion of Rätsep's work is confined to transitive verbs only.

As a summary of Rätsep's view on object case, it can be concluded here that whereas transitive verb lexemes can have the property of resultativity that determines the lexical

possibility of case alternation, perfectivity and totality features are ultimately seen to actually realize these possibilities in a sentence with a resultative lexeme. A resultative lexeme is a lexicon entry that contains a complement type of the form of N+ngp. Rätsep's and Tauli's approaches regard the term resultativity to be applicable to phenomena that occur in the description of lexemes and sentences.

2.2.6. Telicity, boundedness, case, and measure phrases: Sulkala (1996)

Discussing Sulkala (1996) is important since this source contains many additional observations about Estonian aspect and represents a unique attempt to give a concise account about the whole phenomenon of aspect in Estonian. Aspect is approached from a Finnish-Estonian viewpoint. Sulkala (1996) gives, up to now, the most comprehensive English overview of a wider array of Estonian aspectual and Aktionsart phenomena and this writing is frequently taken as a reference point to Estonian aspect and aspectual terminology. The accessibility of this study means it is only necessary to bring out the main points and highlight some discussions that are less, or differently, presented in earlier sources. From the point of view of this dissertation, the following topics are of interest: Sulkala's observations about case marking properties of the measure phrases, the progressive, and the relation between aspect and subject case. She reviews the terminology of aspect, Aktionsart, boundedness, and telicity, and discusses the lexical contribution to aspect, aspectual shifts, and provides many Estonian examples.

2.2.6.1. General views on aspect in Estonian

Sulkala compares Estonian and Finnish, finding that aspect is a property of the whole sentence in both languages. Sulkala's (1996:168) general view is that aspect operates at the level of sentence semantics in the Finno-Ugric languages, and the aspect of the verb is to be looked for in the surrounding nouns. Sulkala agrees with Kangasmaa-Minn (1985:83) who states that no such system of aspect markers exists in the Finno-Ugric languages as in the Slavic and southern European languages, where aspect is expressed by derivational and morphological means. She recognizes, with Kangasmaa-Minn (1985:434), that the role of the transitive verb's object in determining the aspect was the first important insight in discussing Finnish aspect. Sulkala presents her material, on the one hand, in terms of aspect (in perfectivity and imperfectivity) and, on the other hand, in terms of Aktionsarts. Separate

Aktionsarts are seen to be associated either with the perfective or the imperfective aspect. Durative, habitual, continuative, progressive, and iterative are Aktionsarts that are associated with imperfective aspect and punctual, semelfactive, and terminative are the Aktionsarts that are associated with the perfective aspect.

2.2.6.2. Subject case

Further, Sulkala discusses aspectual oppositions as they emerge in oppositions of subject case marking, "[a]spect may sometimes also be marked with the case variation of the subject" (1996:170). Here, the partitive subject occurs in a sentence that can be interpreted imperfectively (31) and the nominative subject occurs in a sentence that can be interpreted perfectively (32).

(31)
Külalisi   saabus.
guest.part.pl   arrive.3.sg.past
'Guests arrived.'
(32)
Külalised   saabusid.
guest.nompl   arrive.3.sg.past
'(The) guests arrived.'

However, it must be pointed out that Sulkala does not claim that in the subject case alternation the nominative would be the marker of the perfective aspect or the partitive case the marker of the imperfective aspect. Rather, her study targets some aspect-related concepts and searches for ways of expressing them in Estonian.

2.2.6.3. Measure phrases

Estonian displays nominative/genitive vs. partitive case alternation of measure phrases. Sulkala (1996:170) points out the aspectual opposition between a partitive-marked measure adverbial and a nominative-marked measure adverbial. The former (33) occurs in an aspectually imperfective, non-bounded sentence with an intransitive, durative verb; the latter (34) occurs in an aspectually perfective, bounded sentence.

(33)
Jooksin   kaht   kilomeetrit.
Run.1.sg.past two.part   kilometer.part
'I was running two kilometers.'

(34)
Jooksin   kaks   kilomeetrit.
Run.1.sg.past two.nom   kilometer.part
'I ran two kilometers.'

The opposition between a partitive-marked measure adverbial and a nominative-marked measure adverbial corresponds to an opposition of perfectivity and boundedness.

2.2.6.4. Telicity and boundedness

Sulkala reflects on the tradition of how the opposition "bounded-unbounded" is most frequently found to be the proper term for what lies behind the Finnish accusative/partitive alternation. Boundedness and perfectivity are seen to be tightly connected and interchangeable terms in many sources, therefore Sulkala tries to articulate the relation between boundedness and perfectivity. In Sulkala's words, "boundedness is considered the most characteristic feature of the perfective aspect" (Sulkala 1996:210). The exact relation between these terms is not further defined. The "telic/atelic" terminological pair is an alternative for discussing the Finnish object case alternation. As Sulkala points out, "[t]he nominative~genitive/partitive opposition of the perfective and imperfective aspect is generally also used to indicate telic and atelic forms" (Sulkala 1996:172-173). Here it must be clarified that this is not the interpretation Sulkala gives to the term telicity. She uses "telicity" as it was introduced to the discussion of Estonian data by Metslang (1994), thus, more in line with the definition of Dahl (1981). In that source, the telicity and atelicity of situations are regarded as different with regard to their internal structure. A situation which has a built-in terminal end point, or which can reach such an end is called telic. A situation that has no such terminal point or possibility to reach one is called atelic. As a further distinction within telicity, Dahl (1981:81-82) calls telicity where the endpoint is or is claimed to be *actually* reached the P

property of telicity and the telicity where the endpoint *can be* reached the T property (illustrated by sentence (35) from Sulkala (1996:173)).

(35)
Mees   ehitab   suvila/suvilat.
Man.nom   build.3.sg   cottage.gen/part
'The man will build/is building a cottage.'

Thus, the previous example in (35) is considered an example of a description of situation telicity as it is understood in the Estonian tradition since Metslang (1994). The left side of the slash (the noun is marked with the genitive) is an example of a description of a telic situation where the endpoint is or is claimed to be *actually* reached, thus having the P (and T) property of telicity. The right side of the slash (the noun is marked with the partitive case) is an example of a description of a telic situation where the endpoint *can be* reached, thus having only the T property. Example (36) from Sulkala (1996:173) with the partitive object is a description of an atelic situation.

(36)
Ema   hellitab   poega.
Mother.nom   pamper.3.sg   son.part
'The mother pampers the son.'

However, Sulkala gives room to other views on telicity suggesting that this term has various content in the Finnic tradition. She refers to Kangasmaa-Minn (1985:440), who sees telicity to be dependent on the verb semantics: "Telicity and atelicity depend on the semantics of the governing verb" (Sulkala 1996:173), but here it remains unclear what the term applies to.

Sulkala names boundedness as the most important notion in the analysis of aspect in Finnish, concluding this on the basis of Leino (1991: 172-178), and Heinämäki (1984: 173, 1994: 208). Heinämäki is quoted for Finnish, "the nominative/genitive object only entails the existence of a bound and not any particular result…[It] signals that the situation is bounded but does not indicate what the bound is. (Heinämäki (1984: 173, 1994: 212-217)," and "The bound can therefore be given explicitly, as in the form of an adverbial phrase or an adverb, in the previous context or in the conventional situation. When the bound is not the normal telic end point, it has to be expressed explicitly" (Sulkala 1996:174). Sulkala shows, by giving an overview of several types and classifications of bounds discussed in Finnish literature, that the notion of bound and boundedness appears in many forms and varieties and does not always correspond to result. Sulkala's work is an interesting starting point in clarifying the exact division of labor between the terms boundedness, telicity and perfectivity, and clarifying the relation of these terms to Estonian. The discussion on measure phrases and shifts (2.3.4.2)

below gives more insight into how Sulkala understands these terms and their ways of interaction.

2.1.6.5. The progressive and the object cases

On the basis of the impossibility of Estonian genitive or nominative objects in sentences containing the progressive *-mas*-construction (the *m*-infinitive inessive), Sulkala points out, "[a]n m-infinitive inessive can in certain contexts also express the perfective aspect in Finnish, but not in Estonian" (Sulkala 1996:184).

(37)
*Olen   pileti   ostmas.
be.1.sg   ticket.gen   buy.masinf
Meaning 'I am buying a ticket.'

This means in (37) that in Finnish, but not in Estonian, by contrast, accusative objects can occur with the progressive construction.

In sum, this source contains much interesting data and tries to describe the Estonian aspectual phenomena in terms of aspect ((im)perfectivity), Aktionsart, telicity, and boundedness, including lexical semantics, on the one hand, and object and measure phrase case marking, on the other.

2.2.7. *Estonian tense and aspect: Metslang (1994)*

Metslang (1994) is a recent dissertation that discusses a wide variety of Estonian aspectual matters and, therefore, is the most valuable source for further studies in this field. The dissertation consists of several articles (written in Estonian, German and Finnish and basically in Reichenbach's tradition) about aspect and tense in Estonian. Also, as is most important from the viewpoint of my dissertation, her writings contain a study on the Estonian periphrastic progressive and information about verbs. This source confirms the existence of aspectual verb classes. Metslang's (1994:18) view is that despite the fact that aspect in Finnish and Estonian is a semantic category without regular grammatical expression, there are grammatical means that express aspect. The grammatical means include the nominative-genitive vs. partitive forms of the object and measure adverbials, and the inessive of the *m*-infinitive (the periphrastic progressive). Aspect is also expressed partly by certain lexical-grammatical means (verbal particles) and partly by the semantics of the verb. It is clear from Metslang's work that the grammatical aspectual markers do not combine unselectively with

all verbs and that is one reason for why she does not regard these markers as proof of the grammaticalization of aspect in Estonian. Metslang's study on perfectivity and imperfectivity is placed into the wider context of narrative. This work is a landmark in the study of Estonian tense and aspect. However, from the perspective of this dissertation, her work on Estonian particle *ära* is more relevant, reviewed in terms of what is considered the situation with the Estonian aspect, below in 2.2.8.

2.2.8. Aspect is expressed by grammatical markers such as the verbal particle

The estimated number of verbal particles is 52 in Estonian (Bereczky 2000:82). There are several matters that were broached in Rätsep (1978) and despite several attempts were never sufficiently treated. Rätsep discussed object case matters in terms of totality, resultativity and perfectivity. However, the exact nature and contribution of what have been called perfective adverbials, their exact status with regard to the verbal center and the verb, and their relation to the determination of object case—especially contrasted with other, exclusively resultative elements—has remained sketchy. Hasselblatt (1990) treats them from the viewpoint of being German loans and therefore deals less with freely combining combinations that clearly are not classifiable as loans. Metslang's work refines Rätsep's work on the semantic content of the perfective particles.

Metslang (2001) regards the particle *ära* as a grammatical marker of perfectivity. In principle, her work does not completely contradict Rätsep (1957) in the sense that Metslang (2001) also rejects the idea of the complete grammaticalization of the category of aspect in Estonian. Also, both works prove their argument by showing that aspectual verbal morphology that would encompass all verbs in all of their paradigms is missing from the Estonian language. However, differently from Rätsep, Metslang draws the attention to the developments that are going on in the direction of grammatical verbal aspect, and a candidate for a grammaticalized verbal aspect marker has the form of the verbal particle *ära*. The following quotation under (38) from Metslang summarizes her view on aspect on aspect in Estonian.

(38)

> Like in other Baltic-Finnic languages, aspect in Estonian has not developed into a consistent grammatical category. Still, it operates in a peripheral way, expressed by resultative or progressive constructions, by so-called bounders, that is, particles more or less tightly connected with the verb, and by alternative case markings of direct objects

(Metslang and Tommola 1995: 300-301). The last-mentioned device is an old feature common to the Baltic-Finnic and the Baltic area (see e.g. Kont 1963, Klaas 1996:40-43). Under certain conditions, so-called partial objects (PO, marked by partitive case) carry imperfective meaning whereas total objects (TO, marked by genitive or nominative) are interpreted as perfective ... However, testing the questionnaires on aspectual typology (e.g. the TMA questionnaire used in Dahl 1985) on the Estonian language, it appears that a typical imperfective-perfective opposition in meaning is expressed in the opposition of the forms of partial and total objects… However, in Estonian, perfectivity can also be explicitly expressed by bounders, viz. the verbal particles *ära* 'off, away', and *valmis* 'ready'. (Metslang 2001:443-444)

Thus, as pointed out in Metslang, in Estonian, aspect emerges grammatically in the following ways:

1) alternative case markings on direct objects correspond to imperfective/perfective oppositions

2) some bounders or particles express perfectivity

3) periphrastic progressive constructions express progressive

4) resultative constructions express perfectivity ('resultative constructions' is used to refer to certain light verb combinations (e.g., *sai tehtud* 'got done')).

The topic of bounders and object case will be discussed in more detail in the following subsections.

2.2.9. Conclusion on aspect

In sum, the following can be concluded about aspect.

1) Aspect is defined through different terminology and is predominantly seen to be a sentence semantic category. There are some authors who study lexical aspect. Lexical semantic resultativity or boundability properties are regarded as a basis of object case assignment.

2) There is a discussion about whether the category of grammatical aspect exists in Estonian. There is a consensus that aspect can be expressed by grammatical means but is not completely grammaticalized.

3) Phenomena seen as aspect are related to the lexical semantics of verbs, case alternation of objects and measure phrases, bounders and some constructions.

4) Boundedness, perfectivity and resultativity are the most frequently used, competing terms in discussing aspect and object case, but they also describe different concepts and relate differently to facts about object case.

The following subsection reviews previous verb classifications and the object case specifics.

2.3. Verb classifications

This subsection introduces the earlier verb classifications in Estonian. Three main sources deal with verb classifications, the status of particles, and the relation between aspect, lexical semantics, and object case. One of these classifications that I discuss is boundedness-based; the other two can be dubbed as resultativity-based according to the terminology used in delimiting the classes. Several Estonian verb classifications group transitive verbs according to the object case and in terms of aspectual notions. Verb classifications are typically based on the verbs' ability to occur in sentences with the morphological genitive and nominative case marking (total object cases) as opposed to the partitive case marking of their objects. However, there is considerable disagreement on the nature of the aspectual notions that are regarded to underlie the classifications and, therefore, the exact verbal classes. There are basically three classifications:

1) a two-way, "boundedness" based classification (*EKG II*, Mihkla et al. 1974),

2) a three-way, "resultativity" based classification (Tauli 1968, 1983 and Rätsep 1978),

3) a classification that takes the role of combinability with the particle *ära* 'up, away' into consideration (Metslang 2001). Five transitive verb classes are distinguished; those classes differ in their relation to combinability with verbal particle *ära* and the effect of this verbal particle to the aspectual nature of the sentence.

These three approaches are discussed in the following sections in turn.

2.3.1. *The two-way classification into aspect and partitive verbs (EKG II)*

The approach in *EKG II* proposes a two-way partition of verbs into "partitive" and "aspect" verb classes (*EKG II* 1993:49). The basis for the classification is defined through the notion of (non)boundability of the activity denoted by the verbs (Est. *piiritle(ma)tus* (*EKG II* 1993:49),

60

see Section 2.3 above for a discussion on the terminology and its application). In the formulation of *EKG II*, "verbs that express non-boundable activity and require only the partial object [i.e., the object that is case-marked with the morphological partitive case] are called Partitive verbs" (*EKG II* 1993:49). Here an example from *EKG II* is repeated (39).

(39)
Ma   alahindasin   Peetrit.
I.nom   underestimate.1.sg.past   Peter.part
'I underestimated Peter.' (*EKG II* 1993:49)

The *EKG II* defines "aspect" verbs as follows: "Verbs that can express boundable action and allow the partial as well as total object [i.e., the object is case-marked with the morphological genitive/nominative] are Aspect verbs" (*EKG II* 1993:50). Here an example from *EKG II* is repeated (40).

(40)
Ma   ehitan   suvila.
I.nom   build.1.sg   summer cottage.gen
'I'll build a summer cottage.' (*EKG II* 1993:49)

The list in (41) presents the classification of partitive verbs as presented in *EKG II*.

(41)
1. **Verbs expressing mental and emotional perception and their expression:** *aimama* 'suspect, guess', *alahindama* 'underestimate', *armastama* 'love', *austama* 'honor', *arutlema* 'discuss', *eeldama* 'presuppose', *haistma* '(feel the) smell', *himustama* 'desire, have lust', *häbenema* 'be ashamed', *ihaldama* 'desire', *imetlema* 'admire', *jälestama* 'loathe', *jälgima* 'watch, follow', *kahetsema* 'regret', *kannatama* 'suffer', *kartma* 'fear, be afraid of', *kogema* 'experience', *kujutama* 'imagine, shape, depict', *kuulama* 'listen', kuulma 'hear', *käsitama* 'regard, approach to something as something', *käsitlema* 'regard, study', *laitma* 'reprehend', *leinama* 'mourn, lament', *maitsma* 'taste, also have a taste of sth', *meenutama* 'try to remember', *mõtlema* 'think', *mäletama* 'remember', *märkama* 'notice', *nuusutama* 'sniff, smell', *nautima* 'enjoy', *nägema* 'see', *oskama* 'be able to', *pilkama* 'mock, banter, deride', *sihtima* 'target', *solvama* 'offend', *soovima* 'wish', *tahtma* 'want', *tajuma* 'sense', *teadma* 'know', *tundma* 'feel', *tänama* 'thank, *usaldama* 'trust', *uskuma* 'believe', *uurima* 'study, watch', *vaatama* 'look', *vajama* 'need', *vihkama* 'hate', *ülistama* 'glorify, exalt', *ette heitma* 'reproach', *ette kujutama* 'imagine', *imeks panema* 'be surprised', *järele aimama* 'mock, play', *pealt kuulama* 'eavesdrop', *pealt kuulma* 'hear by accident', *pealt nägema* 'see by accident', *pealt vaatama* 'watch as something is going on', *silmas pidama* 'mean something concrete', *taga nutma* 'mourn, cry for something or someone', *tähele panema* 'notice, perceive', *üle hindama* 'overestimate'
2. **Verbs expressing movement and touch**: *embama* 'hug', *hammustama* 'bite', *kallistama* 'hug', *keerutama* 'twist', *kehitama* 'shrug', *kibrutama* 'frown', *kraapima* 'scrape', *kratsima* 'scrape, scratch', *laksutama* 'click', *lappama* 'turn pages, flip', *lehvitama* 'wave', *liigutama* 'move, make a move', *limpsima* 'lick', *liputama* 'wave quickly, wag', *lööma* 'hit, strike', *müksama* 'nudge', *noogutama* 'nod', *nõelama* 'sting', *näpistama* 'pinch', *peksma* 'beat', *piitsutama* 'whip', *pilgutama* 'wink', *puudutama* 'touch', *riivama* 'touch lightly', *silitama* 'stroke', *suudlema* 'kiss', *sügama* 'scratch', *taguma* 'bang, beat', *vangutama* 'wag, waggle, shake (of someone's head)', *veeretama* '(make) roll', *õõtsutama* '(make) sway, rock, roll'.

3. **Verbs associated with normal and experiencer sentences** the content of which is **existential**: *ahistama* 'harrass', *asustama* 'inhabit', *ehtima* 'decorate', *hoidma* 'keep', *huvitama* 'interest', *iseloomustama* 'characterize', *kartma* 'fear', *kaunistama* 'decorate', *läbima* 'go through', *ootama* 'wait', *piirama* 'border, delimit (as obstacle)', *raamima* 'frame', *tabama* 'hit the target', *valdama* 'overwhelm', *valitsema* 'rule', *varjutama* 'cast shadows on', *ähvardama* 'threaten', *ääristama* 'border as decoration', *üllatama* 'surprise'.

4. **Verbs expressing the course, evaluation etc of an activity**: *aitama* 'help', *alustama* 'start, begin', *harrastama* 'go in for something', *jätkama* 'follow, continue', *katkestama* 'interrupt', *kavatsema* 'plan', *nõudma* 'require', *püüdma* 'try, catch', *takistama* 'obstruct', *taotlema* 'apply', *väärima* 'be worth(y)', *üritama* 'attempt'.

5. **Several other verbs with no specific common features,** they express continuous controllable actions and their objects are directional objects: *helistama* 'phone, ring, call', *hoidma* 'keep', *juhtima* 'drive, lead', *kahjustama* 'damage', *karistama* 'punish', *kasutama* 'use', *kohtama* 'meet', *näitama* 'show', *parandama* 'improve', *premeerima* 'award, stimulate', *ründama* 'attack', *segama* 'disturb', *soosima* 'favor', *tarvitama* 'use (regularly)', *teenima* 'serve', *toetama* 'support', *trahvima* 'fine', *tähendama* 'mean', *õnnitlema* 'congratulate', *taga ajama* 'chase', *ülal pidama* 'keep, support, maintain'.

Partitive verbs can consist of a simplex verb, or a verb and a particle, an adverb, or a case-marked noun. The particle does not influence object case: object case is partitive in simplex and particle verbs of this verb class. *EKG II* includes the following verbs as examples of aspect verbs (42).

(42)
avastama 'discover', *jätma* 'leave', *looma* 'create', *parandama* 'repair', *saavutama* 'achieve, attain', *kujundama* 'shape, design, form', *tekitama* 'create, bring to being', *äratama* 'wake', *sooritama* 'make (exam, etc)', *koostama* 'compile', *leotama* 'soak, drench, in order to turn something soft or clean', *moodustama* 'form, create', *keetma* 'boil', *võtma* 'take', *saama* 'get, become', *haarama* 'grab', *voltima* 'fold', *laenama* 'borrow, loan', *tooma* 'bring here, fetch', *viima* 'bring there, take', *kutsuma* 'call, invite', *teatama* 'announce', *varuma* 'gather and save in reserve'.

Aspect verbs can have genitive, nominative or partitive case on the basis of the information in *EKG II*. Aspect verbs can occur with or without a particle, but the presence or absence of the particle does not influence the object case of aspect verbs. This approach to the verb classes is similar to the approach in Mihkla et al (1974).

2.3.2. The three-way classification: Tauli (1968) and Rätsep (1978)

Tauli (1968, 1983) and Rätsep (1978) propose a three-way verb classification. Both Rätsep and Tauli use the term "resultativity" in their description of verb classes. All transitive verbs are capable of having partitive objects. The "resultative" verbs have an additional capability, that of assigning nominative/genitive. A comparison with the *EKG II* classification brings out

the differences between the two approaches. What are termed in the *EKG II* classification as aspect verbs are in Rätsep's class 1 and in Tauli's class A, presented and described in (43), the class B and 2 are presented and described in (44), the class C and 3 is presented and described in (45).

(43)
1. These are the verbs that can occur with partitive and with total objects without any particles or adverbials. Tauli's "A" verbs are the following: *tegema* 'make', *viima* 'bring', *rikkuma* 'ruin, spoil'. Rätsep's example list of his class 1 verbs reads as follows: *alistama* 'subjugate', *ehitama* 'build', *istutama* 'plant', *kirjutama* 'write', *minetama* 'forfeit, lose', *omandama* 'acquire', *rajama* 'create, establish', *trükkima* 'print', *vigastama* 'harm, injure', *äratama* 'rouse, (make) wake up'.

(44)
2. Some of the *EKG II*'s partitive verbs are in Rätsep's class 2 and in Tauli's class B. These verbs are not resultative, and their object is always partitive. Class B in Tauli contains *puudutama* 'touch', *võrdlema* 'compare', *abistama* 'help', *alahindama* 'underestimate', *armastama* 'love', *huvitama* 'interest', *jälgima* 'watch', *kahtlustama* 'suspect', *külastama* 'visit', *solvama* 'offend'. Rätsep calls his class 2 'partitive object verbs', his examples include *alustama* 'start, begin', *harrastama* 'go in for, have as hobby, practice', *jätkama* 'continue', *liputama* 'wag, whisk', *nautima* 'enjoy', *pooldama* 'be on the side of, support', *sallima* 'tolerate, stand', *õigustama* 'justify', *üritama* 'attempt' etc.

(45)
3. A complementary set of *EKG II*'s partitive verbs is in Rätsep's class 3 and in Tauli's class C. These are the verbs that do not exclude genitive assignment but lack some element necessary for assigning total. Class C of Tauli includes *lugema* 'read', *lööma* 'hit, strike', *lükkama* 'push', *meelitama* 'entice, lure', *kiitma* 'praise', *kiskuma* 'drag, touch', *kohendama* 'arrange, put properly', *liigutama* 'move', *naerma* 'laugh at', *nihutama* 'shift', *nägema* 'see', *pigistama* 'squeeze', *provotseerima* 'provoke', *rebima* 'tear', *rõhuma* 'suppress, press', *sirutama* 'stretch', *suruma* 'press', *usaldama* 'trust'. Class 3 of Rätsep contains *ahvatlema* 'entice', *arstima* 'cure', *ehmatama* 'frighten', *hõõruma* 'rub', *ihuma* 'whet, hone, sharpen', *juhtima* 'lead', *kallama* 'pour', *loopima* 'toss, fling', *mudima* 'knead, crumple', *nihutama* 'shift', *pumpama* 'pump', *raputama* 'shake', *sikutama* 'tug at, lug, pull', *tõmbama* 'pull, draw', *vedama* 'drag, draw, carry', *õrritama* 'tease', *ässitama* 'instigate, incite, abet' etc.

Thus, a third class (2, B) is distinguished by Rätsep and Tauli; that is, the class of "partitive - aspect", "ambiresultative" verbs. As this group of verbs is not discussed as a separate class in *EKG II*, some more characterization is needed. Rätsep provides the ambiresultative verb class with two parallel lexical representations: one entry with a three-case complement (N+ngp, see example (30) in Section 2.2.5 for the definition of this complement type) and the other entry with a partitive object (N+part.). An example of Rätsep's dual pattern can be found in the treatment of the verb *veeretama*, 'roll' (46) under the pattern 198.4.1. (Rätsep 1978:222).

(46)
N1+nom. V N2+ngp (De) (Dt1) {Dt2 v Di}
N1+nom. V N2+part ((De) (Dt1) {Dt2 v Di})

The first item of the pattern corresponds typically to sentences such as (47). The second item corresponds to sentences such as (48) from Rätsep (1978:221), illustrated below.

(47)
Mehed   *veeretasid*   *vaadi*   *õue.*
men.nom   roll.past.3.pl   barrel.gen   yard.illat
'The men rolled a/the barrel into the yard.'
(48)
Mehed   *veeretasid*   *vaati.*
men.nom   roll.past.3pl   barrel.part
'The men rolled/were rolling a/the barrel.'

2.3.3. Verbal particles are sensitive to verb classification

Estonian has verbal particles that have aspectually different functions. In Chapter 5, this dissertation will discuss the perfective verbal aspectual particles in further detail and divide them into completive and bounding types. There I will make the point that the combinations of verbs and completive particle (CP) are restricted and the combinations of the bounding particle (BP) are free. Therefore, I also review here the sources that write about verb class-particle relations. The common observation is that the particle and the total object case co-occur.

2.3.3.1. Metslang's view on verb classes and particles

For the purposes of my study, it is important to introduce Metslang's work (Metslang 2001) as the pioneer (after an earlier, fairly short, article of Rätsep (1969) on those complex verbs) in studying the Estonian classes of verbs that combine with a verbal particle, combinations of verbs and particles, and relations between the particles and object case. This subsection can be regarded as a brief explication of Metslang's work in order to construct a more complete picture of the phenomenon. Metslang studies the development of the Estonian most general verbal particle[18], the verbal particle *ära.* Metslang (2001:4) describes the directional-deictic,

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[18] According to the statistical data of Nagy (2003) on the frequency of the occurrence of the Estonian verbal particles (in her terminology, *igekötő*, verbal prefix), the particle *läbi* is considerably more frequent than the particle *ära.* This runs counter to the data of Hasselblatt (1990), whose findings show that the particle *ära* is the most frequent. However, Nagy considers only token frequency. For many native speakers, still *ära* is the prototypical verbal particle in Estonian. Even if it were statistically less frequent than *läbi*, semantically, it is most bleached among the Estonian verbal particle. *Läbi* 'through' occurs mostly in lexically restricted combinations, but *ära* combines with verbs more freely, in a way explicated in Chapter 5.

perfective-deictic, and purely perfective aspectual meanings as steps in the grammaticalization process of the verbal particle. The verbal particle *ära* is seen as a perfective particle, a particle that emphasizes or adds the perfective meaning to the sentence where it occurs. Metslang characterizes *ära* as in the following quotation (49).

(49)

> A particularly frequent verbal particle is *ära*, which occurs, in the directional meaning (*ära minema* 'to go away') but especially as an aspectual exponent (*ära parandama* 'to repair'). In addition to the established phrasal verbs *ära* also occurs as an adherent perfectivity particle, offering competition to the Finno-Ugric way of expressing aspect by means of alternation of case forms of the object. In addition, *ära* contributes to the information and rhythm structure of the sentence. (Metslang 2001:477)

Thus, next to the aspectual meaning, the particle *ära* expresses other functions, such as participating in the regulation of the information structure of a sentence. The division of functions between the object case and the particle is the following as described by Metslang: the particle and total object case are parallel, competing ways of marking perfectivity. Therefore, double perfectivity marking can occur as seen in Metslang, but there can also be no perfectivity marking, as in intransitive sentences without a particle. Metslang uses the morphological object case as a clear criterion for establishing the effect of the particle on the perfectivity of sentence, not vice versa; thus, it is the object case that she sees as litmus for perfectivity. As Metslang writes: "To examine the aspectual and other functions of the most regular verbal particle *ära*, we observed the use of this particle in the transitive sentences where the form of the object indicates the aspect of the sentence" (Metslang 2001:446).

Metslang studies transitive sentence pairs with and without a verbal particle, the patterns verb+object and verb+object+particle (or a lative complement). The partitive object and imperfectivity often occur in sentences where a verb appears without the particle *ära* (in the pattern verb+object). On the other hand, the total object and perfectivity tend to appear when the same verb occurs *with* the particle *ära* (in the pattern verb+object+particle). Metslang gives five combination types. Metslang's comprehensive classification turns out to reflect other, more complex principles than verb classification only. The criteria of Metslang's classification of the verb-particle combinations are the optional status of the particle and the information structural effects. In the first place, the perfective particle is studied in terms of how obligatory and irreplaceable it is for the emergence of the perfective aspect (total object). In the second place, the exact role of the particle is described in terms of information structuring. In the following points I summarize some particular points about the account.

Table 2.2 presents a summary of Metslang's types; the number column contains reference to Metslang's combination type. I studied the source for the following information.

1. The variety of the aspectual functions of the particle is described as follows:

    1. Perfectivizing (group one verbs, also clear completion is mentioned with group 1, examples are, though, about group 2)

    2. emphasizing and doubling the perfective meaning (group 2)

    3. bounding the situation (in subgroup 3b: bounding the situation in verbs that do not occur without an explicit marker of bound)

    4. purely perfectivizing (group 4).

The relation of the particle to perfectivity and verbs remains to be studied in Chapter 4.

2. The status of verb-particle combinations. There are combination types that contain verb-particle pairs where the partitive-object counterpart without any particle is missing, which also confirms that Metslang does not view the particle as something that necessarily adds anything aspectual to a simplex verb, but it behaves as a part of a verb.

3. Verb classification and combination. Even if Metslang sets out to classify verbs ("the transitive verbs divide according to their relationship to the particle *ära* into five groups" (Metslang 2001:4)), the exact lexical semantic properties of the verbs that are grouped together in the different classes are difficult to track. Even if Metslang gives an aspectual description of the simplex verbs, she does not base her classification on the aspectual verb classes either, since the verb classes in the verb-particle combination types are partly overlapping across the combination types. However, the circumstances of the occurrence of the particle are observed to be sensitive to verb classification. For instance, the combination of the verb and the particle is impossible, thus inapplicable in type 5.

4. Description of verbs in terms of aspect. Metslang distinguishes the following verb classes: (phrasal) perfective verbs; simple imperfective verbs; inherently perfective telic punctual verbs, inherently perfective transition verbs; verbs used imperfectively and perfectively; telic durative verbs; atelic durative verbs; atelic, inherently imperfective verbs of transition; atelic verbs denoting situations that have no typical or other imaginary bound; atelic, mostly stative verbs denoting relations, for which no bound may be thought out. Thus, reference to the boundability of a situation, telicity, and perfectivity are the basis for the lexical aspectual oppositions. These oppositions of imperfectivity-perfectivity, atelicity-telicity and further, punctuality, durativity, and transition can be factored out as features of the Estonian verbs that are relevant for combining with particles. The exact content of these terms and the exact

principles for a classification in these terms must be clarified in order to find out the details about the relations with the verbal particles.

5. Description of particle verbs in terms of aspect. The exact nature of all the groups of the resultant particle verbs has remained sketchy. The object case in sentences containing combinations with particles is total, and this indicates in terms of Metslang perfectivity: particle verbs are perfective.

6. The types one and two pattern together according to the role of the particle in indicating the information novelty of the referent as described in Metslang (2001), Rajandi and Metslang (1979). The position of the particle before or after the object indicates the old and new status of the object referent (Subsection 5.6.4 for a more detailed discussion and for illustration, (50) for old and (51) for novel presentation of object referents; I would classify what is referred to by Rajandi and Metslang as old—as contrasted. In this discussion, I apply the labels "thematic-rhematic" used in Metslang 2001). Metslang has not provided a description of type 3 in terms of information structure, thematicity and rhematicity, but according to my test the sentences of type three can indicate rhematicity the same as the sentences illustrating type 1 and 2, as evidenced by (50) (example as the basis for testing, from Metslang 2001), and (51) (my test):

(50)
Ta   müüs   oma maja   vennale /   ära
he/she sell.3.sg.past his/her house.gen   brother.all   ptcl
'He/she sold his/her house to his/her brother / away.'
(51)
Ta   müüs   vennale /   ära oma maja
s/he   sell.3.sg.past brother.all   ptcl his/her house.gen
'S/he sold his/her house to his/her brother.'

The combination types 1-3 thus represent combinations with the type of particle uses that participate in influencing and structuring text coherence. On the contrary, the combination type 4 has an information structurally distinct, fixed particle, the rhematic-only *ära*. Another point of clarification is also due here. It is somewhat unclear what the information structural contribution is of the lative phrase *paiste* 'swollen' in combination with *suudlema* 'kiss'[19] in Metslang: "The sentence *Ma suudlesin ta ära* (literally 'I kissed her off') could be said if one has made a bet to kiss the girl" (Metslang 2001:449). Is the information structural contribution of the lative phrase *paiste* listed as a parallel to the particle the same as *ära*? Here I quote Metslang's example in (52) and interpretation of it.

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[19] The 4th type is rather exceptional also because the cohesion function of the particles in 1-3 is not a particular property of the particle, but of adverbs in general (Rajandi and Metslang 1979).

(52)
Ta   suudles   tüdruku paiste.
he/she kiss:PST girl:TO swollen
'He kissed the girl swollen'.

The test for whether the object can appear as rhematic information shows that it can (53):

(53)
Ta   suudles   paiste   tüdruku.
he/she kiss.3.sg.past swollen   girl.gen
'It was a/the girl that he kissed swollen'.

The facts do not verify that the resultative complement *swollen* has the same rhematic property as the particle *ära* has in combination with this verb. Therefore, the information structural classification inherent in Metslang's classification could be refined: the generalization about rhematicity can be only maintained with the particle *ära*, which proves therefore to be a different grammatical entity than the resultative complement in this respect. Also, the particle is not intuitively similar to the resultative complement *paiste* 'swollen', which describes a result state "swollen" of the girl, since the particle does not describe any result state of the object referent.

5. The circumstances of the optional nature of the perfective particle for the occurrence of the perfective aspect. Here follow the five possibilities, as follows from the description of Metslang (2001).

1. Obligatory

2. Optional

3. Obligatory, but replaceable by directional phrases

4. Optional or obligatory depending on the verb class, replaceable depending on the verb class.

5. The combination of the verb and particle is impossible, thus inapplicable.

Differently from types 1-3, only the type 4 relations do not form a separate, identifiable group. Combination type 4 simultaneously contains obligatory and optional, replaceable and irreplaceable particles. The type 4, therefore, as opposed to other types, contains verb-particle relations where the optional nature of the particle is not relevant for defining the type. However, here the function of the particle is described only as "purely perfective". Type 4, therefore, indeed embodies a different classification criterion. Chapter 5 deals with the particle and with developing the insights from Metslang's work in further detail.

2.3.3.2. Conclusion to verb classes and particles as discussed in Metslang (2001)

Metslang's combinational classification contains two main criteria: the optional nature of the particle and information structure. On the one hand, there are types of relations where the obligatory and irreplaceable nature of the perfective particle for perfective aspect is relevant for describing the verb-particle relation, on the other hand, there is one type where either this nature is not relevant, or the relevance of this nature is insufficiently defined as the basis for a separate type. Instead, this, the 4th, type emerges as being different in terms of its information structural particularities. That this class 4 has a different relation to the base verb class suggests that the particle and the combination of the particle with the verb is not lexically restricted but regulated by other factors instead.

From Metslang's description it follows that across the 5 types, the circumstances of the occurrence of the particle are sensitive to verb classification. That is, verb classification is relevant for whether the particle can combine with the verb, and whether it is obligatory or replaceable for the emergence of perfectivity. In order to find out the exact relations between verbs and particles, a more in-depth study of phenomena must be carried out—that is the study in Chapter 5.

Table 2.2 represents the discussed results. I have added the telic-atelic or perfective-imperfective aspectual qualities of simplex verb classes that combine with the particles; the number column contains reference to Metslang's combination type.

Table 2.2. Summary of Metslang (2001) on verb classes, object case, and the role of verbal particles

Nr	pattern	alternation without particle	particle is obligatory for perfectivity.	Particle related to Total Object	Cohesion Effect	characterization of simplex,	Simplex-particle pairs
1, M1	V+TO+PP	V+PO	Yes	Yes	Structuring	Atelic	*know – recognize*
2, M2a	V + TO (+ PP)	V+PO	No	Yes/no	Structuring	Imperfective and perfective	*koristama* 'clean – tidy up'
3, M3a	V + TO + lat / PP	V+PO	Yes	Yes	Structuring	Imperfective, atelic	*veeretama* 'roll something – roll something somewhere'
4, M4b	(V + TO + PP / lat)	V+PO	Yes	Yes	Rhematic	Atelic	*suudlema* 'kiss'
5, M2b	V + TO (+ PP)	V+TO	No	No	Structuring	Perfective, telic	*tapma* 'kill'
6, M4a	V+ TO ((PP))	V+TO	No	No	Rhematic	Perfective	*sünnitama* 'give birth to'
7, M3b	V + TO + lat / PP	None	Yes	Yes	Structuring	--	*panema* 'put'
8, M5	V+ PO	--	--	--	--	Atelic	*vajama* 'need'

In this table, I distinguished eight different patterns and types as answers to the questions about the particle's relevance to perfectivization and total objects, information structuring, and the nature of the simplex verbs that combine with the particle. By now, some areas where Metslang's classification suggests a need of further clarification have become visible—especially class 4 verbs and their combinations with the particle. I discuss the further details of verbs and particles and their relations in Chapter 5.

2.3.4. Verbs describe situations and shift aspectually

Sulkala (1996) is a source where verbs are divided according to the situation type that they describe. Nemvalts (1996, 2000) and Metslang (1994) also contain information and views on aspectual classifications of Estonian verbs. Sulkala devotes attention to aspectual shifting, which she understands as the phenomena where aspectually imperfective verbs are used perfectively and v.v.

2.3.4.1. Verbs and situations

Sulkala also discusses the aspectual features that are present in the lexical semantics of verbs. In her words, "[s]emantic properties do not make verbs definitely transitive/intransitive or resultative/irresultative" (Sulkala 1996:178). Verbs are classified according to how they describe situations. Sulkala writes, "[i]t depends on the semantic properties which kind of a verb fits into a sentence describing a situation" (Sulkala 1996:177). Sulkala (1996:178) distinguishes four situation types as described by verbs for Estonian:

1)   punctual (*leidma* 'find')

2)   durative (*lugema* 'read')

3)   ingressive (*algama* 'start, begin')

4)   terminative (*lõpetama* 'finish, stop').

Following Kangasmaa-Minn (1985:87-88), verbs are also classified according to their (inherent) aspectual features (Sulkala 1996:178):

1)   inherently imperfective (*valvama* 'ward, be awake')

2)   perfective (*saavutama* 'achieve', *võtma* 'take')

3)   neutral (*lugema* 'read', *ehitama* 'build').

The inherent lexical aspectual features of the verbs can be changed by shifts.

2.3.4.2. Shifts

Sulkala devotes attention to aspectual shifting, which is understood as the phenomena where aspectually imperfective verbs are used perfectively and v.v., or perfective sentences are used imperfectively and v.v., etc. Agreeing with Kangasmaa-Minn (1985:443) on Finnish, Sulkala finds that "an imperfective sentence can always be made perfective by bounding, while a perfective sentence can only be made imperfective under certain conditions" (Sulkala 1996:211). Sulkala discusses cases where perfectivity, bounding, and case give combinations that are generally less discussed in the literature. For instance, "[a]n explicit bound, e.g. distance, can be added to sentences indicating an imperfective aspect, but it does not necessarily change the case of the object. On the other hand, when an explicit bound is added to a perfective sentence, the object is in the nominative/genitive. The aspect of the sentence is

perfective in both cases" (Sulkala 1996:186). These claims are illustrated by examples (54) and (55).

(54)
Takso   sõidutas   Peetrit   viis   kilomeetrit.
taxi.nom   drive.3.sg.past Peeter.part five.nom   kilometer.part
'The taxi took Peeter five kilometers.' (Sulkala 1996:186)

The previous example (54) has the partitive object case. It is considered perfective by Sulkala, and there is an explicit bound. It is also perfective by the divisive reference test referred to in the introduction.

(55)
Takso sõidutas   Peetri   viis   kilomeetrit   Oulust
taxi.nom drive.3.sg.past   Peeter.gen   five.nom   kilometer.part   Oulu.ela
lõuna poole.
south.gen direction.all
'The taxi took Peeter five kilometers south of Oulu' (Sulkala 1996:186)

The previous example (55) has the genitive object case. It is considered perfective by Sulkala, and there is an explicit bound. The duration of the situation, the bound, can be expressed by a measure adverbial in the nominative/genitive operating in a basically imperfective sentence (Sulkala 1996:188). The adverbial adds perfectivity to the sentence (Sulkala 1996:188). Note that perfectivity does not coincide here in (56) with the nominative/genitive case on the object (the book).

(56)
Loen   tunnikese   raamatut.
read.1.sg   hour.dim.gen book.part
'I will read a book for about an hour'

2.3.5. Conclusion on verb classifications

In sum, the boundedness and resultativity-based approaches to lexical classifications make reference to lexical aspect terminology and in the studied classifications. The aspectual oppositions are seen to correlate with the alternation of the object case. The main difference in these two types of classifications is the treatment of a large group of in-between, boundable, or dual, ambiresultative verbs, "irresultative verbs with an element of resultativity", partitive verbs, which display the behavior of both the partitive and the genitive/nominative assigning verb types. However, many verbs that are classified as partitive or irresultative verbs can occur with the total object when they combine with the particle. The lexical aspectual properties that have been mentioned to be related to the object case are that of perfectivity/imperfectivity, telicity/atelicity, boundability, terminativity/coursivity of verbs.

Also, elements that are most frequently referred to as bounding and resultative adverbials or verbal or perfective particles tend to co-occur with total objects.

2.4. Conclusion to Chapter 2

There are various standpoints on how to understand the relation between aspect and verbal lexical entries. Frequently, properties of situations are referred to (boundability). Aspect has not developed into a grammatical category. The specifics of the phenomena of object case, and combining with particles are at least in part seen to be dependent on verbs and their classification. The following chapter studies the verb classifications in more detail.

Chapter 3. Verb classes and object case

This chapter presents the data on verb classification and object case. The main purpose of Chapter 3 is to demonstrate that despite the facts that Estonian transitive verbs can occur with either object case, and the same verbs occur in sentences with opposite aspectual properties, verb classification is crucial for the exact realization of the object case and aspectual properties of the sentence.

The first section of the chapter points out the problems with assuming two or three verb classes that determine object case. The main problem is that, on the one hand, the relevant terminology is not clearly defined in the earlier accounts and, on the other hand, verbs are classified according to their occurrence with one of the object cases. However, verbs associated with one object case do not invariantly appear with this object case only. Thus, the grounds for assuming verb classes are not firm enough. On the other hand, this section discusses that the reasons for occurring with the "opposite" object case vary depending on the verb class. Also, a more systematic overview of the combinations with the so-called "bounders" or "resultative complements" is presented. According to these differences, a more precise aspectual verb classification can be proposed for Estonian.

The second section of this chapter contains a classification of Estonian verbs in terms of the classification discussed in Vendler (1957). A comparison with this disputed but widely known aspectual or event structural classification clarifies some regularities of the aspectual behavior of verbs and shows the relation with the object case.

3.1. Problematic points in earlier sources

The understanding from Chapter 2 is that Estonian object case alternates on the basis of aspect, but the alternation is not available for all verbs and it is dependent on the properties of the object NP. To remind, the total case, the morphological genitive (1) marks singular NPs and the morphological nominative (2) marks plural NPs in perfective sentences. I use the terminological pair perfective–imperfective, following the line of Metslang's research. These two sentences are terminative according to the criteria of Verkuyl (1993) and bounded in terms of Kiparsky's notion of boundedness (Kiparsky 1998). For defining perfectivity, Kiefer's definition of perfective events is also applicable in these cases (Kiefer s.d.:276).

(1)
Mari   ostis   raamatu.
M.nom   buy.3.sg.past book.gen
'Mari bought a/the book.'

(2)
Mari   ostis   raamatud.
M.nom   buy.3.sg.past   book.nom.pl
'Mari bought (the) books.'

Partitive typically marks singular (3) and plural (4) object NPs in imperfective sentences.

(3)
Mari   ostis   raamatut.
M.nom   buy.3.sg.past book.part
'Mari was buying a/the book.'

(4)
Mari   ostis   raamatuid.
M.nom   buy.3.sg.past book.partpl
'Mary bought books. (It was books that Mari bought.) Mari was buying (the) books.'

When the object NP has a plural (4) or a mass (5) referent, the sentence can have two aspectual interpretations, perfective and imperfective. These sentences can be pronounced with different stress and intonation patterns, and these facts influence the interpretation. In case of neutral stress and intonation, sentences (4) and (5) are perfective, the object NPs are not focused, and the referents of these phrases are not specific.

(5)
Mari   ostis   vett.
M.nom   buy.3.sg.past water.part
'Mary bought water. (It was water that Mari bought.) Mari was buying water.'

An overview of case patterns as discussed in *EKG II* can be found in Table 2.1, Chapter 2. Despite this type of frequently presented data that would suggest that Estonian verbs are aspectually "amorphous" and flexible in terms of object case assignment, and despite the evidence that shows that most verbs can occur with objects that bear either case, the goal of this section is to demonstrate that verb semantics has an important role in determining aspect and compatibility with case marking.

Previous approaches have documented a typology of verbs in two or three distinct classes. However, these approaches to verb classification do not have an explanation when verbs that belong to one "object case class" appear with the object case marking that is used as a classification criterion for another verb class. In several instances, the aspectual properties of the sentence are changed under the influence of the so-called bounders, in others they are not changed; in addition, the aspectual properties of the sentence can be changed without any bounders. One of the most important problems to solve is what is the relation

between the so-called bounder, the verb, its object and aspect, such as in the pairs (6) and (7).[20]

(6)
Mari   ostis   raamatu.
M.nom   buy.3.sg.past book.gen
'Mari bought a/the book.'

(7)
Mari   ostis   raamatu   ära.
M.nom   buy.3.sg.past book.gen   *ära*
'Mari bought a/the book.'

The various particles and phrases that contribute to the interpretation of the sentence as having a set endpoint are referred to as "bounders" in this chapter. As a bridge between previous Estonian verb classifications and the aspectual classification in Section 3.2 and Chapter 7, this section wishes to make some adjustments to the Estonian sources about verb classification and the correspondence to the facts about object case. The main point to be presented in this section is that the verbs grouped according to their occurrence with the partitive or total object case in the classifications of *EKG II* and Tauli-Rätsep must be grouped according to different principles.

Ultimately, the aim is that clearly defined lexical aspectual properties replace the observational, object-case-based grounds for the classification of verbs. On the one hand, what is exactly meant by the terms "resultative" and "irresultative" or "boundability of situation" has not been adequately defined; therefore, the verbs cannot be classified according to a definition. On the other hand, reliable classification tests have not been provided to distinguish between the different verbs either. The lack of well-defined classification principles hinders extending the classes with new items. Section 3.2 discusses the standard aspectual classification tests but also shows the differences from a hypothesized pattern of object case and lexical aspect. This section organizes the data, discussing the problems of earlier classifications and occasional misclassifications. The verbs will be discussed in two parts, first the irresultative (B and C) and partitive verbs' classes (3.1.2), followed by the resultative (A) and aspect verbs (3.1.3).

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[20] Marginally, speakers allow for partitive objects in sentences with the particle, ?*Mari ostis raamatut.part ära.* Similar examples are recorded in some sources (cf. Harms 1962:131), but they are rare. However, mass and plural partitive NPs, which are acceptable with the same verb and without particle, seem to have additional unnatural readings for pragmatic reasons: ??*Mari ostis raamatuid.part.pl ära.*

3.1.2. Partitive and irresultative verbs

3.1.2.1. Irresultative verbs

The irresultative classes (Tauli 1968, Rätsep 1978) are not clearly distinguished from the resultative class in terms of verbal features or object case. Verbs belonging to both classes occur with two object cases. The classes B and C are termed irresultative, but only the class B (2), the "true" irresultative verbs, contains verbs that can occur with the partitive object only (these verbs are illustrated in Chapter 2, example (44)). In order to give an account of the interaction between verbs, particles, and object case, it is necessary to clarify the following points about the material presented in these sources:

1) the term "irresultative"

2) the feature that distinguishes verbs, if many verbs allow for either case

3) the differences between bounders and their influence on aspect

4) problems with treating the verb-bounder complexes

5) identifying the inconsistencies in the classifications

6) differences between the irresultative verbs.

The standpoints of this dissertation about these issues are discussed in turn below.

1. The term "irresultative".

The term "result" will not be defined in this dissertation. In order to prepare the discussion and rejection of the "telicity-object case hypothesis", I propose relating the material that has been referred to in terms of the previous terminology "irresultative-resultative" to "atelic-telic". I leave the possible research options concerning the issues of a result state for future.

2. The problem of distinguishing verbs.

The relation of class C ("ambiresultative") to class A (res.) and to class B (irres.) is unclear. Lexical aspect makes class C (ambires.) identical to B (irres.), but the ability to occur with two types of object case makes C (ambires.) similar to A (res.). Example sentences (15)-(22) in the following section take this question up with some solutions.

3. The problem of bounders and partitive objects.

The combination of class C ("ambiresultative") verbs with a bounder does not automatically trigger total case marking of objects, as seen from the examples (8) and (9). The insight is that

these verb-bounder combinations occur more typically with total object case marking, but they do not exclude the partitive either.

(8)
Mari	*loopis*	*tund*	*aega*	*palli*	*katusele.*
M.nom	throw.3.sg.past	for an hour		ball.part	roof.allat

'Mari was throwing the ball on the roof for an hour.'

(9)
Mari	*ässitas*	*koera*	*tund aega*	*võõrale kallale,*
M.nom	incite.3.sg.past	dog.part	for an hour	stranger.allat+at,

aga koer ei võtnud vedu.
but the dog did not get interested.
'Mari incited the dog to bite the stranger, but the dog did not get interested.'

Thus, the conditions of partitive case that make a difference between classes A, B, and C can be better articulated.

4. Problems with treating the verb-bounder complexes.

The insight is that even if both A (res.) and C (ambires.) verbs appear *with* a bounder, appearing with a bounder is relevant for object case only in case of C (ambires.) verbs. The question is, when they are "in combination with a bounder", do class C (ambires.) verbs behave like class A (res.) verbs in terms of case marking on the infrequent occasions that the A (res.) verbs appear without a bounder, as in (10).

(10)
Mina	*tegin*	*selle*	*töö*.
I.nom	do.3.sg.past	this.gen	work.gen

'I did the job.'

Alternatively, looking at the same problem from the viewpoint of the bounder, if the two classes have identical behavior "in combination with a bounder", what is the exact status of the bounders needs specification. That is, what is in common in the sentences (8) and (9) and sentence (11).

(11)
Ma	*tegin*	*selle*	*töö*	*ära.*
I.nom	do.3.sg.past	this.gen	work.gen	*ära*

'I did the job.'

On the one hand, the dissertation searches for a way to capture the similarities and differences between the combinations of verbs and bounders. Chapter 7 proposes a way to treat the differences.

5. Inconsistencies in the classifications.

The fact that there is a lack of exact classification tests yields inconsistencies in classification. Many of the verbs that are classified as purely irresultative, partitive-object verbs can occur

with the particle *ära* and a total object: *puudutama* 'touch' (demonstrated in (26), Subsection 3.1.2.2), *võrdlema* 'compare', *abistama* 'help', *jälgima* 'watch', *külastama* 'visit', *solvama* 'offend' (Tauli 1968); *alustama* 'start, begin', *liputama* 'wag, whisk', *õigustama* 'justify' (Rätsep 1978); see examples for the class in (44), Subsection 2.3.2.

6. Differences between the irresultative verbs.

The lack of clearly defined features that would predict object case behavior and the aspect of the sentence gives rise to another unresolved issue. There are some verbs that can refer to events with a clear beginning, end, and a result, such as *solvama* 'offend'. Despite the resultativity of these verbs, they are classified as irresultative on the basis of the typical facts about their object's case, which is partitive. Here, the intuitive concept "irresultativity" does not make correct predictions about object case. Therefore, I consider the alternatives of (im)perfectivity and (a)telicity. These verbs typically (that is, at least in some, most often used senses) appear in perfective sentences. Their reference is non-divisive, since the arbitrary proper parts of the event in the denotation of *solvama* 'offend' are not necessarily in the denotation of the predicate. These verbs do not typically appear in sentences with the telic interpretation, however, since the sum of two events of *solvama* 'offend' may be in the denotation of the predicate. The intuition about these verbs is that although they denote a delimited, bounded event where a relevant change of affairs has taken place, their denotation does not excude that the event can be continued. These verbs are, on the one hand, compatible with the adverbials denoting grades of intenisty, such as *üha rohkem/vähem* 'more and more, less and less'; on the other hand, they are compatible with adverbials that indicate that a change has been completed to at least some extent, such as *mõnevõrra* 'to some extent'.

Thus, the defining principle that relies on irresultativity is not exact for defining this class of partitive-object verbs. Reference to an alternative term pair that relies on the frequently used concept of *lõpetatus* 'having (been brought to) an end, closed-endedess, being finished' does not define the irresultative class either. It may cover verbs of the type *solvama* 'offend', which describe events with a result and possible continuation; so, they can be open-ended. However, there are other verbs that are not open-ended. Resorting to open-endedness as a common denominator for the class would of leave out verbs such as *puudutama* 'touch' or *riivama* 'touch lightly'. These verbs describe events that typically are of short duration and have an obligatory temporal end. However, this endpoint cannot be brought in connection with any relevant change in the situation, a result. These verbs typically (that is, at least in some, most often used senses) appear in perfective sentences. Some of them (e.g., *riivama*

'touch fleetingly, slightly') cannot appear with durative adverbials that denote a definite span of duration; others, such as *puudutama* 'touch' can appear with such durative adverbials, but in that case, they rather have stative or iterative readings. Their reference is non-divisive, since the arbitrary proper parts of the event in the denotation of *puudutama* 'touch' are not necessarily in the denotation of the predicate (there are no parts). These verbs do not typically appear in sentences with the telic interpretation, however, since the sum of two events *puudutama* 'touch' may be in the denotation of the predicate. As opposed to the type of partitive object verbs such as *solvama* 'offend', verbs of this type are compatible with simple temporal bounding adverbials that refer to undefined temporal boundaries of the event, such as *korra* or *korraks* 'a time, once, for a while'. Therefore, the conclusion is that the irresultative verb class houses various verbs that are not compatible with total object case marking for different reasons.

Verbs that are classified as irresultive not on the basis of their denotation lacking reference to a result or an element of endedness but on the basis of their partitive object case are perfective by the tests. Being lexically perfective thus cannot be related to total object case assignment. However, these verbs are perfective in clearly different ways, one group lexicalizes change and the other group—short duration. The verbs of the type *solvama* 'offend' describe lexically an event of changed situation, whereby the event can have duration or not. This information suggests that there is a kind of perfectivity or boundedness that relates to a minimal *change* in an event and to partitive objecthood. On the other hand, verbs of the type *puudutama* 'touch' encode rather the information that the event is short whereby changes can take place. This information suggests that there is a kind of perfectivity or boundedness that relates to a minimal *duration* of an event and to partitive objecthood.

In sum, there are several points to clarify, and they pertain primarily to the nature of verb entries, the meaning components in verbs and ways of combining with bounders that determine the object case possibilities. Partly, these points to clarify coincide with the points that can be raised in the discussion of the partitive verbs of *EKG II*. I return to these points in the following Subsection 3.1.2.2 on *EKG II* and its partitive verbs. In order not to repeat some points that are common in both approaches, the presentation of some problems of the verb classification in *EKG II* is more constructive in a sense that I make a preliminary finer distinction between the verbs that occur under partitive verbs in *EKG II*, using some insights from the three-way classification and a distinction between (resultative) complements and particles as opposed to the particle *ära*.

3.1.2.2. Partitive verbs can have total objects

The two-way classification avoids reference to result and relies on the term "boundability". It tries to integrate the parallels between the nominal and verbal domain (cf. Bach 1986) by introducing a term that may be related to boundedness. Therefore, "result" does not emerge as a relevant term, which removes some problems of the Tauli-Rätsep approach. *EKG II* is also a step forward in treating particle and verb combinations as lexical aspectually distinctive units. Also, this approach allows for more variation in the verbs' behavior in terms of object case; this variation is motivated by the properties of the situations these verbs describe. Some less articulated issues in the two-way classification in *EKG II*:

1) a definition for (not) boundable situations
2) the status of bounders (arguments or not), partitive verbs appearing with several bounders, the particle *ära* and a total object
3) partitive verbs that appear with total objects

The problems of the partitive and irresultative verb class are largely identical; therefore, the discussion of partitive verbs partly complements the discussion of irresultative verbs.

1. This classification (*EKG II*) relies on the notion of boundable situations. The approach allows for the occurrence of one verb in the description of several types of situations (boundable and bounded) and, therefore, one verb can occur with different object case and have various complementation patterns. Some complements and particles are related to situation boundaries. However, what are boundable or not boundable situations is not clearly defined; therefore, the predicates that refer to the situations are not well defined either. Actually, the classification in *EKG II* is even less articulated about verbs that typically occur with the partitive than the classification based on the notion of resultativity. As discussed in Subsection 3.1.2.1 about the differences between irresultative verbs, the reasons for appearing with a partitive object diverge. The same reasoning can be carried over to the boundability approach. Some partitive verbs describe boundable (*jälgima* 'follow, watch', *kuulama* 'listen (to)') and others, non-boundable situations (*mäletama* 'remember'). Other partitive verbs describe situations that are bounded (*kahjustama* 'damage'). The verbs that describe boundable situations can also be applied for describing bounded situations. These are the verbs that, despite their classification as "partitive verbs" in *EKG II,* allow for total case

marking, and they occur in aspectually opposite sentences. On the other hand, those verbs that describe non-boundable situations describe situations that cannot be bounded for various reasons, some of which are mentioned in connection with the perfective "irresultative verbs". They may lack a temporally relevant dimension, describing general attitudes and states, and they may be unavailable for bounding because they are inherently (temporally or otherwise) minimally bounded already.

2. Boundable situations can be bounded, but in terms of linguistic forms that correspond to the bounding of the situation, I propose a finer distinction between the linguistic correlates of bounders. First of all, partly, it is the total object case that unambiguously correlates with the boundedness of the situation. However, differently from Finnish, total objects typically occur when there is a bounder present in the sentence. On the basis of the lexical material discussed in *EKG II* and their typical occurrence with object case and "bounders",[21] I suggest further distinctions among the presented partitive verbs.

A. Non-boundable: individual level predicates and inherently bounded verbs.

B. Boundable by an argument.

C. Boundable by the terminative phrases (the object is partitive) or the particle *ära* (the object is total).

A. Non-boundable: individual level predicates and inherently bounded verbs are verbs that occur with partitive objects only.

(12)
alahindama 'underestimate', *armastama* 'love', *austama* 'honor', *eeldama* 'presuppose', *himustama* 'desire, have lust', *ihaldama* 'desire', *imetlema* 'admire', *jälestama* 'loathe', *jälgima* 'watch, follow', *kahetsema* 'regret', *kartma* 'fear, be afraid of', *kogema* 'experience', *kujutama* 'imagine, shape, depict', *kuulma* 'hear', *käsitama* 'regard, approach to sth as sth', *leinama* 'mourn, lament', *meenutama* 'try to remember', *mäletama* 'remember', *nautima* 'enjoy', *teadma* 'know', *usaldama* 'trust', *uskuma* 'believe', *vajama* 'need', *vihkama* 'hate', *ülistama* 'glorify, exalt', *ette kujutama* 'imagine', *imeks panema* 'be surprised', *järele aimama* 'mock, play sb', *pealt kuulama* 'eavesdrop', *pealt kuulma* 'hear by accident', *pealt nägema* 'see by accident', *pealt vaatama* 'watch as sth going on', *silmas pidama* 'mean sth concrete', *taga nutma* 'mourn, cry for sth/sb', *tähele panema* 'notice, perceive', *üle hindama* 'overestimate', *huvitama* 'interest', *kartma* 'fear', *valdama* 'overwhelm', *valitsema* 'rule', *harrastama* 'go in for sth', *kavatsema* 'plan', *takistama* 'obstruct', *taotlema* 'apply', *väärima* 'be worth(y)', *üritama* 'attempt', *soosima* 'favor', *teenima* 'serve', *toetama* 'support', *ülal pidama* 'keep (sb, supporting)', *taga ajama* 'chase'.[22]

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[21] Cf. the examples of Klaas (1999) on resultative complementation of partitive verbs that occur with total objects. Klaas (1999) is also discussed in terms of a lexicalist approach by Ackerman and Moore (2001).

[22] The fact of writing a verbal particle or a case-marked noun as one word with the verb does not influence the case assignment of the predicate. See as examples of combinations that are written as one verb, Tauli (1972:118). All of the transitive verbs, except *taaselustama* 'revive', have typically partitive objects.

On the one hand, these are the verbs that cannot combine with the particle *ära* (13) and are not boundable, since they describe a general situation, state, truth or an attitude; these are referred to as individual level predicates as opposed to stage level predicates in aspect-related literature (cf. Kratzer 1995).

(13)
*Mari alahindas   Tooma   kavaluse   ära.
M.nom underestimate.3.sg.past   Thomas.gen   cleverness.**gen** ptcl

On the other hand, there are partitive verbs that seem to be compatible with the optional phrases that denote a boundary, but adding a boundary can pertain to the intensity of the activity and would not affect the object case (14). Here I discuss the example of the verb *solvama* 'offend', which was presented in the discussion about irresultativity. This type of verb describes situations with an outcome, a change in the situation, or result; however, the result can be attained at any occurrence of the described situation.

(14)
Mari   solvas   Toomast   südamepõhjani.
M.nom   insult.3.sg.past Thomas.**part**   bottom- of-the-heart.terminative
'Mary insulted Thomas to the bottom of his heart.'

Example (14) is problematic in terms of a result-based approach, and it fares better in a boundability-based approach. In that case, the verb could be understood to describe a situation that is bounded inherently. The following list in (15) includes more instances of such inherently bounded verbs in *EKG II*.

(15)
ette heitma 'reproach', *üllatama* 'surprise', *kohtama* 'meet', *alustama* 'start, begin', *jätkama* 'follow, continue', *kahjustama* 'damage', *liigutama* 'move, make a move', *noogutama* 'nod', *pilgutama* 'wink', *riivama* 'touch lightly', *kibrutama* 'frown', *karistama* 'punish', *premeerima* 'award, stimulate', *ründama* 'attack', *õnnitlema* 'congratulate', and *puudutama* 'touch'

B. Boundable by an argument. The proposal to distinguish between boundable and nonboundable verbs is made in various forms. Klaas (1999), who compares the alternation of Estonian object cases with the corresponding Lithuanian phenomenon, calls the occasionally partitive assigning verbs of this class "soft" (classes 3 and C, (Chapter 1, (45))) and the solely partitive assigning ones "hard" partitive verbs (classes 2 and B, (Chapter 1, (44))). An example of the behavior with a hard partitive verb *pooldama* 'support, be on behalf of' with a bounder *lõpuni* 'until the end' is borrowed from Klaas (1999:55) for discussion (15)-(17).

(15)
*Komisjon   pooldas   **teist**   **kandidaati**.*
board.nom   support.3.sg.past   second.part   candidate.part
'The board supported the second candidate.'

(16)

Komisjon *pooldas* **teise** **kandidaadi** *lõpuni.*
board.nom support.3.sg.past second.gen candidate.gen end.term
Intended to mean 'The board supported the second candidate until the end.'

(17)

Komisjon *pooldas* **teist** **kandidaati** *lõpuni.*
board.nom support.3.sg.past second.part candidate.part end.term
'The board supported the second candidate until the end.'

The examples ((18)-(20)) of the behavior of the soft partitive verb *ihuma* 'sharpen' are borrowed from Klaas (1999:55). The sentences (19) and (20) with the translative marked phrases occur with both object cases.

(18)

Mees *ihus* **nuga.**
man.nom sharpen.3.sg.past knife.part
'The man was sharpening the knife.'

(19)

Mees *ihus* **noa** *teravaks.*
man.nom sharpen.3.sg.past knife.gen sharp.transl
'The man sharpened the knife.'

(20)

Mees *ihus* **nuga** *teravaks.*
man.nom sharpen.3.sg.past knife.part sharp.transl
'The man was sharpening the knife.'

The terminative and translative marked phrases are listed in Rätsep's complement types that occur in verb patterns with the Rätsep's complement type "N+ngp". However, the terminative marked phrase is an adjunct in (17) and (21), but a translative marked phrase is an argument (19), (20), and (22), which I test with the possibility of a "do-so" test (21), (22).

(21)

Komisjon *pooldas* **teist** **kandidaati** *, ja tegi seda lõpuni.*
board.nom support.3.sg.past second.part candidate.part and did so until the end
'The board supported the second candidate and did so until the end.'

(22)

#*Mees* *ihus* *nuga* *, ja tegi seda teravaks.*
man.nom sharpen.3.sg.past knife.part and did it.part sharp.transl
('The man was sharpening the knife and did so sharp.')

This is an example that illustrates that the boundaries that are provided by the verb and its arguments are relevant for object case, and that the boundaries that are provided outside the verb-argument complex, generally, do not have any impact on object case. As the facts with the terminative and translative marked NPs show, I may assume a distinction between the boundaries provided by the phrases that have the argument as opposed to adjunct status. It is a weakness of the description in *EKG II* that it does not distinguish clearly between the status of

the bounders and their relation to the object case. This distinction is clear in Rätsep (1978). However, the relation between the argument and adjunct status of the NP that denotes the boundary and object form type is not explicitly stated in Rätsep (1978) either.

The relation between the status of the phrase and object case has not been well defined in other earlier Estonian sources either. However, the syntactically and lexically different status of the boundary NPs is mentioned in Erelt (2003). In his discussion of obliques and adverbials, Erelt (2003:99) proposes special spatial and temporal semantic roles of boundary ("N ter"). It remains further unclear in this source how semantic roles are linked with arguments and adjuncts. However, the fact that they are linked is relevant. That is, there are other native speakers who recognize the link between an identical semantic role and arguments on the one hand and adverbials, on the other. My intended improvement to this insight is clarifying the exact basis of the link between the boundary semantic role and the NPs that are either arguments or adjuncts. In my view, identical case marking of obliques (arguments) and adverbials (adjuncts) is related to the boundedness of entities with a different semantic structure, span and scale. A verbal lexical scale dimension is related to direct internal arguments (or "objecthood"). The existence of actual boundedness of this dimension is encoded by object morphology. Adjunct NP morphology specifies a boundary or an endpoint of a different, linear, and measurable dimension—span. The total case marked adjuncts and terminative case marked adjuncts both specify that there is a boundary, but differently from the terminative marked adjuncts, the total case marked ones do not necessarily specify the exact identity of the boundary or endpoint.

Returning to sentences (17) and (19), both sentences describe an event with an endpoint. Thus, although the translative or terminative case-marked phrase can provide a boundary, it co-occurs with the total object complement type ("N+ngp")[23] only if it is an argument and not an adjunct. The translative marked phrase *teravaks* 'sharp' (19), (20) is an argument, the terminative marked phrase *lõpuni* 'till the end' (17) is an adjunct. In terms of Rätsep's patterns, the translative NP is the syntactic realization of the obligatory material belonging to the lexical entry including the (object) complement type. The other, parallel lexical entry of the verb *ihuma* 'sharpen' is without the translative complement type, and it has only the Rätsep's complement type "N+part" (basically, the partitive object type). On the other hand, the terminative phrase in (17) and (21) is not the realization of the obligatory material in the lexical entry of *pooldama* 'support', it is a free adjunct that denotes a boundary or endpoint. *Lõpuni* 'until the end', therefore, refers to a type of situation boundary that

cannot be related to the object case. A terminative marked phrase may have impact in other cases, where it is the realization of the obligatory material that is contained in the lexical entry, but this topic is left for further research.[24]

C. Thus, there is another group of verbs that typically occur with partitive object case, but in sentences with the perfective particle *ära* these verbs appear with a total object. The discussion here also shows that one verb can be applied for descriptions of several types of situations. The verbs may combine with the particle *ära* and have a total object as illustrated in (23), even if the combination with the particle and having a total object is pragmatically not neutral.

(23)
Mari   solvas   Tooma   ära.
M.nom   insult.3.sg.past Thomas.gen   ptcl
'Mary did the insulting of Thomas.'

These data suggest that more partitive verb groups can be distinguished according to the situations they can describe. The following discussion presents groups of verbs that denote activities but also static situations or relations, verbs that denote activities, and "soft partitive verbs" that can describe activities and accomplishments.

a) Verbs that denote activities but also static situations or relations

(24)
ahistama 'harrass', *iseloomustama* 'characterize', *pilkama* 'mock, banter, deride', *sihtima* 'target', *solvama* 'offend', *varjutama* 'shadow', *taga ajama* 'chase', *käsitlema* 'regard, study', *ette heitma* 'reproach', *üllatama* 'surprise' *kohtama* 'meet', *alustama* 'start, begin', *jätkama* 'follow, continue', *kahjustama* 'damage'

b) *Verbs that denote activities*

(25)
laksutama 'click', *liputama* 'wave quickly, wag', *vangutama* 'wag, waggle, shake', *nuusutama* 'sniff, smell', *käsitlema* 'regard, study', *läbima* 'go through', *kahjustama* 'damage', *liigutama* 'move, make a move', *noogutama* 'nod', *pilgutama* 'wink', *riivama* 'touch lightly', *kibrutama* 'frown', *karistama* 'punish', *premeerima* 'award, stimulate', *ründama* 'attack', *õnnitlema* 'congratulate', and *puudutama* 'touch'

The verb *puudutama* 'touch' is presented in (26) as discussed in Klaas (1999).

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[23] 'N+ngp': see Subsection 2.2.5, example (30) for the definition of this complement type.

[24] For instance, the same terminative phrase occurs as argument by the do-so test in sentences where the object case is total, as in *ma vaatan filmi lõpuni* 'I'll watch the film till its end'. See also the discussion of Klaas (1999) in Ackerman and Moore (2001).

(26)
Ta   puudutas   mängija   ära.
s/he   touch.3.sg.past   player.gen   ptcl
'He touched the player.'

Also, another example, with *tänama* 'thank' as in (27) belongs to this group.

(27)
Ta   tänas   jõuluvana   ära   ja asus kommikoti kallale.
s/he   thank.3.sg.past   SC.gen   ptcl   and started with his bag of candy
'He thanked Santa Claus and started with his bag of candy.'

Examples (26) and (27) are the examples of partitive verbs where the bounding can occur only with the particle *ära* (the bounding particle, see Chapter 5). This group can be expanded with many verbs.

c) "soft partitive verbs" that can describe activities and accomplishments

This is the most studied phenomenon of verbal aspectual alternation in Estonian. Here follow the verbs that are referred to in Klaas (1999) as soft partitives. These are mainly the "ambiresultative" verbs, class C (3) of the three-way distinction; see the examples under (45) in Chapter 2. These are verbs that appear basically with the partitive object. From verbs that can belong to this group, *EKG II* does not include many (caused) motion verbs. The conditions and combinations where they can appear with the total object are discussed below in following order:

i)   particles (28)

ii)   resultative phrases (29)

i) combinations with a particle

The following verbs can occur with the particle *ära* (cf. Chapter 5, the completive particle type) and the total object.

(28)
parandama 'improve', *katkestama* 'interrupt', *kasutama* 'use', *kuulama* 'listen', *nägema* 'see', *vaatama* 'look', *ootama* 'wait', *näitama* 'show'

ii) resultative phrases, causative constructions[25]

Some verbs that occur in resultative constructions are listed in (29) and provided with illustrative examples. The object case is total, *helistama* 'phone, ring, call' as in (30), *lehvitama* 'wave' as in (31), *juhtima* 'drive, lead' as in (32), *trahvima* 'fine' as in (33).

(29)
embama 'hug', *kallistama* 'hug', *keerutama* 'twist', *kehitama* 'shrug', *kraapima* 'scrape', *kratsima* 'scrape, scratch', *lappama* 'turn pages, flip', *limpsima* 'lick', *müksama* 'nudge', *nõelama* 'sting', *näpistama* 'pinch', *peksma* 'beat', *piitsutama* 'whip', *silitama* 'stroke', *sügama* 'scratch', *taguma* 'bang, beat', *aitama* 'help'

(30)
Ta   helistas   arsti   jalule/sõrmed kangeks/   kella tila   küljest.
s/he   ring.3.sg.past doctor.gen   feet.all finger.nom.pl stiff   bell's tongue.gen off
 'He ringed until the doctor woke up, his fingers got stiff, the bell's tongue off.'

(31)
Ta   lehvitas   rätikuga   kärbsed   eemale.
s/he   wave.3.sg.past   towel.comit   fly.nom.pl   away
'He chased the flies away by waving the towel.'

(32)
Ta   juhtis   auto kõrvalteele.
s/he   drive.3.sg.past car.gen sideway.all
'He drove the car to a sideway.'

(33)
Nii   trahvid   sa   mu   vaeseks   kui   kirikurott.
so   fine.2.sg   you   me   poor.transl   as   church mouse
'You fine me so that I'll be as poor as a church mouse.'

The most productive means of bounding are resultative constructions. A possible lexical template of such constructions is *agent/instrument CAUSE patient to BECOME in state (of being (at) x) BY activity*, whereby the agent or instrument is the subject, the state is specified by various phrases (a resultative phrase, a lative oblique), and the activity is represented by the base verb (cf. Spencer and Zaretskaya 1998). The resultative constructions such as in (33) typically contain a translative resultative complement, that is, an adjective as in (33) or a noun phrase case marked with the translative case as in (34).

(34)
Ta   luges   raamatu   kapsaks.
s/he   read.3.sg.past book.gen   cabbage.transl
'He read the book so that the book looked like a cabbage.'

The constructions that have come to being by combining a soft partitive verb with a resultative complement are often also analysed as causatives. In all of these cases there is a

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[25] See Klaas (1999) for detailed examples of this type.

clear theme, patient or experiencer argument involved in the event. Those arguments are changed in the course of the action, or their location is changed. Also, there are opaque and semi-transparent particle combinations and idiomatic phrases that contain a partitive base verb and the bounder that by Rätsep's criteria belong to the verbal center. These are separate lexical entries and have their own object type properties.

3. Stative verbs with total objects

Some verbs, illustrated in (35), have an object case alternation that does not correspond to any shift in the aspectual interpretation, as it will be described later (Section 3.2, stative verbs).

(35)
piirama 'border as obstacle', *raamima* 'frame', *ääristama* 'border as decoration', *katma* 'cover', *moodustama* 'form,' etc.

These verbs, which can be classified as "partitive verbs" according to the criteria of *EKG II*, allow total case objects in aspectually *not* opposite sentences (stative-stative alternation). Those cases are discussed in Subsections 3.2.1.2 and 3.2.1.3. This dissertation regards these cases as instances of quirky, idiosyncratic case with historical motivation; according to my preliminary assessments, this alternation is losing its productivity.

As a conclusion to the discussion of irresultative and partitive verbs, many but not all partitive and irresultative verbs can occur with the total object. Therefore, defining a class via the object case is problematic. Defining the class of verbs that intuitively belong together (since they typically occur with the partitive object case) on the basis of the terms non-boundable or irresultative is also problematic. Therefore, new criteria for verb classification will be proposed in Chapter 7 and a different approach to the interaction between verbs, particles, case and aspect will be sketched.

The following subsection addresses the problem that almost all verbs listed under aspect and resultative verbs can occur with partitive objects.

3.1.3. Aspect verbs and resultative verbs occur with partitive objects

The verbs listed under aspect verbs can occur with partitive objects, which is a problem if verb classes are distinguished from each other on the basis of the verbs' occurrence with concrete object cases. This subsection shows that they can do so with different effect. Therefore, the class A (1) of the Tauli-Rätsep classification could be refined.

3.1.3.1. Resultative verbs

First, I discuss some points of class A (1) of resultative verbs that need to be clarified in the three-way, Tauli-Rätsep classification. Many of the points of criticism are discussed earlier; therefore, the exposition here is brief, touching the following topics:

1) the term "resultativity"

2) the conditions for appearing with partitive objects

3) the status of bounders

4) misclassifications

1. In previous sources, it is not sufficiently defined what determines the object case alternation, what is the relation between verbal (verb class) resultativity, on the one hand, and "resultativity of the action" (actual resultativity) and case assignment, on the other. The verb's basic lexical aspect (in terms of resultativity) is considered the only essential difference from classes B (2), (irres.) and C (3), (ambires.). Despite this assumption, the lexical (class based) aspect can equally well fail to predict the total case assignment as evidenced by the contrast between the sentences (39) and (40) below. In those examples, the C (3), (ambires.) type verb's lexical aspect can change from resultative (39) to irresultative (40) in a sentence as the object case alternates.

(39)
Mari kirjutas raamatu.
M.nom write.3.sg.past book.gen
'Mary wrote a book.'

(40)
Mari kirjutas raamatut.
M.nom write.3.sg.past book.part
'Mary wrote/writing a/the book.'

2. The verbs within the group A (1) (res.) are lexical-semantically heterogeneous and they have not been given specific characteristics in those sources. However, these verbs have alternating object case (41).

(41)
Mari rikkus tihti/nagu alati raamatut.
M.nom ruin.3.sg.past often/as usual book.part
'Mary ruined/was often, as usual ruining a/the book.'

These verbs occur with the partitive in the habitual (signaled by 'as usual, always') or iterative (signaled by 'often') meaning (41). They cannot denote processes (42) and cannot typically be understood as the progressive (43).

(43)
#Mari   rikkus   tundide kaupa   raamatut.
M.nom   ruin.3.sg.past for hours   book.part
'Mary was ruining a/the book for hours.'

(44)
#Mari   rikkus   raamatut,   kui   uks   avanes.
M.nom   ruin.3.sg.past book.part   when   door.nom   open.3.sg.past
'Mary was ruining a/the book when the door opened.'

Verbs that are referred to as typical incremental theme verbs[26] can belong to this class A (1) (res.), e.g. *kirjutama* 'write' (but, e.g. *lugema* 'read' is not included in this class). Those verbs occur with the partitive in the habitual or iterative meaning and also duratively (45) as tested by the durative temporal adverbial *for hours* or in the progressive (46) (tested by the *when-*clause):

(45)
Mari   kirjutas   tihti/tundide kaupa/nagu alati   raamatut.
M.nom   write.3.sg.past often/for hours/as always   book.part
'Mary was writing a/the book for hours/wrote a book as usual.'

(46)
Mari   kirjutas   raamatut,   kui   uks   avanes.
M.nom   write.3.sg.past book.part   when   the door   open.3.sg.past
'Mary was writing a/the book when the door opened.'

Other incremental theme verbs (creation verbs, effected object verbs), such as *tegema* 'make', *ehitama* 'build', *rajama* 'create, establish', *trükkima* 'print' have in this respect the same properties as the incremental theme verb *kirjutama* 'write'. They occur with the partitive object if durative; as shown, in the habitual, iterative and in the progressive meaning. The more precise tests for Vendler classification are studied in Section 3.2 in further detail.

3. The role of the verb meaning and the role of the added bounder in the notion of resultativity (see also the discussion of only partitive assigning verbs in 3.1.2.2) can be made more explicit with resultative verbs. It is true of class A (1) (res.) as much as of class C (3) (ambires.) verbs that the bounder is related to total case assignment, however, that relation has not been

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[26] See Section 4.2.5 for English examples of incremental theme verbs. This term became widely known since Dowty (1991) and Krifka (1992) and his earlier work. They used it for the description of verbs such as *eat* and *build. Eat (an apple)* and *build (a house)* type verbs of denote the piece-by-piece, incremental creation or consumption; they are said to have incremental themes. There is a final piece or increment in the events described by these verbs, which marks the temporal end of the whole event. Such verbs are also referred to as effected object verbs.

sufficiently articulated yet. The verbs within the group A (1) (res.) are heterogeneous in their occurrence with the particles. The verb *viima* 'bring' combines with the directional *ära* (see Chapter 5). In a different function of *ära* (only as the bounding particle, see Chapter 5), the following verbs can occur in a sentence with it: *vigastama* 'harm, injure' (it is a partitive, irresultative, misclassified verb), *alistama* 'subjugate', *omandama* 'acquire'. The verb *minetama* 'forfeit, lose' does not occur with *ära* or any other bounder.

4. Misclassifications arise in this classification. For instance, *vigastama* 'harm, injure' is a partitive-only verb unless combining with the bounding particle (see Chapter 5). This is, intuitively, a resultative verb. Some of the listed verbs, such as *viima* 'bring', occur felicitously only with a complement.

The verbs listed under resultative verbs can occur with partitive objects under various circumstances; therefore, the criteria for establishing class A (1) of the Tauli-Rätsep classification could be worked out in more detail.

3.1.3.2. Aspect verbs occur with partitive objects

Since the class of aspect verbs in *EKG II* and the class A (1) (res.) of the Tauli-Rätsep classification are designed to capture similar generalizations about classification and object case, the problems with the classification overlap. The following observations are listed below:

1) appearing with or without bounders
2) there is no correlation between the appearance of a bounder and the total object

1. As in the case of the verbs listed under resultative verbs, the aspect verbs occur often with a bounder (particle). The role of a bounder that occurs with the aspect verbs is differently defined in *EKG II* than in the Tauli-Rätsep approach. An example demonstrates that the bounder has a role in the information structural organization of a sentence with an aspect verb. More specifically, the appearance of a bounder in seen to be related to the fact that the object referent belongs to old, known information. However, the types of combinations with the bounders are dependent on the aspect verb semantics and cannot be explained uniformly

by information structural conditions. As in the case of the resultative verbs, the examples of which can be found under point 3 in Subsection 3.1.3.1, there are verbs among the aspect verbs that practically do not occur without a bounder, there are verbs that occur somewhat less typically with a bounder and there are verbs that cannot appear with a bounder at all. I list the types with examples below.

A. The following verbs typically occur with the bounder when in combination with the total object: *jätma* 'leave', *äratama* 'wake', *leotama* 'soak, drench' (probably a misclassification), *keetma* 'boil', *voltima* 'fold', *laenama* 'borrow, loan', *viima* 'bring there, take'. Partitive objects do not have a forced interpretation effect with many of these verbs when they occur without a bounder. Also, *jätma* 'leave' occurs rarely without a bounder, *viima* 'bring there, take' does not occur without a bounder. Several combinations of these verbs and bounders are opaque (many with *saama* 'get, become', *leidma* 'find', *kutsuma* 'call, invite').

B. The following verbs do not occur with a bounder; only the particle *ära* may occur with them in (context dependent) sentences: *avastama* 'discover', *looma* 'create', *saavutama* 'achieve, attain', *tekitama* 'create, bring to being', *sooritama* 'make (exam, etc)', *koostama* 'compile', *moodustama* 'form, create'.

C. The verbs *tekitama* 'create, bring to being', *saama* 'get, become', *leidma* 'find', *kutsuma* 'call, invite', *teatama* 'announce', *varuma* 'gather and save in reserve' occur with an adessive or allative phrase that serves as a kind of goal bounder; the object case is partitive or total.

2. Usually the bounder-verb combinations that are listed under aspect verbs allow both cases, with a preference for total case, e.g. *ette võtma* 'start (with something), deal with something resolutely'. The partitive is not excluded as shown in (47).

(47)
Mari   võttis   seda   eksamit   juba   viiendat korda ette.
M.nom took.3.sg.past this.part   exam.part   already fifth time   ptcl
'Mary was taking/went for this exam for the fifth time already.'

As a conclusion to Subsections 3.1.1 to 3.1.3, which sketch some observations about earlier accounts, I cannot assume the total or partitive case as a case that is only dependent on verb class and some grammatical categories such as negation. This point is actually made by more thorough studies, such as Kont (1963), Rätsep (1978), Tauli (1983), or the *EKG II* if read attentively. However, it is not made clear enough for simpler accounts that are based on these sources. This subsection shows that the verbs' relation to object case and combinability with

several types of bounders is largely based on lexical aspect, but for a satisfactory account of the conditions of either case assignment, the classes must be more clearly defined.

3.1.4. Total objects, aspect, and intransitive verbs

The discussion of earlier sources is not complete without mentioning two earlier not discussed issues. Two problems related to the aspect of intransitive verbs are discussed in this subsection: the object case of transitively used intransitive verbs and the aspectual properties of intransitive verbs. Intransitive verbs (such as *olema* 'be') typically do not express aspect. Both earlier verb classifications reflect generalizations about the sensitivity to the concept of result and boundaries, but in order to explain the classification principles of new verbs the classifications are static, relying on the presence of objects and using terminology that is not defined in the given sources. An area that has not been studied yet is the question of where to categorize various intransitive verbs with their potential object case assignment properties when they are used transitively, consider *istuma* 'sit' (48), (49), an intransitive verb with a nominative subject, or *sadama* 'rain' (50), (51) a verb with a typically partitive subject.

(48)
Mees   istus.
man.nom   sit.3.sg.past
'The man sat.'

(49)
Mees   istus   kübara   laiaks.
man.nom   sit.3.sg.past   hat.gen   flat.transl
'The man made the hat flat by sitting on it.'
(Literally, 'The man sat a/the hat flat.')

(50)
Vihma   sadas.
rain.part   rain.3.sg.past
'It was raining.'

(51)
Vihm   sadas   kübara   märjaks.
rain.nom   rain.3.sg.past hat.gen   wet.transl
'The hat became wet because it was raining. The rain caused the hat to become wet.'
(Literally, 'The rain rained a/the hat wet.')

Some basically intransitive verbs can appear with objects when they are combined with a resultative phrase. Next to describing the object case assignment properties of transitive verbs, a verb classification should ideally be based on principles that are valid for intransitives as well.

On the other hand, given the fact that one class of verbs is named *aspect* verbs, what might be the reasons for including only transitive verbs under aspect verbs? Excluding those

intransitive verbs that are very similar to the transitive aspect verbs in terms of aspectual properties, such as in the following example sentences (52) – (58), is not justified.

(52)
Mari   pühendus   tööle.
M.nom devote.3.sg.past   work.allat
'Mary devoted herself to work.'

(53)
Mari   lakkas   hüüdmast.
M.nom stop.3.sg.past   shout.mast-inf
'Mary stopped shouting.'

(54)
Mari   tutvus   Katiga.
M.nom get acquainted.3.sg.past   Kate.comit
'Mary got acquainted with Kate.'

(55)
Mari   süvenes   mõtte(i)sse
M/nom get immersed   thought.(pl)illat
'Mary got immersed in thoughts.'

(56)
Mari   joobus   õnnest.
M.nom   get drunk   happiness.elat
'Mary got elated with joy.'

(57)
Mari   rahuldus   piskuga
M.nom was satisfied   little.comit
'Little sufficed for Mary, Mary was/got satisfied with quite little.'

(58)
Haigekassa   nõukogu   loobus   otsustamisest.
the Council of Public Health   give-up.3.sg.past   deciding.elat
'The Council of Public Health declined to decide; the Council declined to make the decision.'

Due to mixing morphological and semantic terminological labels, the opposition is formulated in terms of "partitive" versus "aspect" verbs. However, it is possible that there are intransitive verbs that have the same aspectual properties as transitive "partitive" verbs. In sum, there are some aspect and object case related unresolved questions that pertain to intransitive verbs. The problems of intransitive verbs and their object case properties will not be discussed in detail in this dissertation, but they are relevant for pointing out the need for a more uniform approach. Some issues of intransitive verbs are discussed in Section 3.2. Chapter 4 points out some problems of understanding the aspectual properties of intransitive verbs and the mapping or linking of their arguments.

3.1.5. Summary of Section 3.1

Using the examples in the *EKG II* and in the accounts of Tauli and Rätsep, I pointed out the necessity for assuming more verb classes than discussed in those sources. On the other hand, I showed that the verbs and their relation to object case and combinability with several types of bounders is dependent on lexical class. However, it is advisory to define verb classes less circularly, that is, not via observations about their typical object case, since most verbs appear with both cases. In order to extend the lists that predict the object case assignment behavior and motivate better the present classification, independent criteria are useful. Also, there are some issues that have not been addressed about Estonian aspect and object case. One of these is intransitive verbs and their ability to express aspect and to occur in transitive sentences. The following groups emerged:

1) genuinely non-boundable, individual level predicates, hard partitive verbs that do not combine with a particle or if they appear in sentences with a bounder, their object case is partitive (underestimate);

2) non-boundable, inherently bounded predicates, while the bounding can be of two different types (offend vs. touch);

3) boundable partitive verbs that combine with the particle *ära,* and the object case is in that case total (wag);

4) boundable, soft partitive verbs, aspect verbs and intransitive verbs that form resultative constructions; the object case can be in that case total (wave);

5) partitive verbs that appear with total object case with no change in aspect (cover, contain);

6) aspect verbs that typically occur with a bounder (find);

7) and those that typically do not occur with a bounder (discover);

8) intransitive verbs that can express aspect (get acquainted);

9) intransitive verbs that cannot express aspect (be).

The following Section 3.2 makes an aspectual classification of Estonian verbs since both verb classification types considered reflect generalizations about the sensitivity to the concept of result and boundedness, occasionally to perfectivity—concepts that are employed in the discussions related to aspect.

3.2. Aspectual classification

This subsection studies verbs in terms of their aspectual classification and case alternations on their objects. The hypothesis is that verbs that refer to events occur with the total object case and verbs that do not refer to events occur with the partitive objects. The goal is to find out the correspondences between the relations between lexical aspectual classes and the typical object case. This section has three main goals:

1) to establish the verbs' aspectual classification

2) to point out the correspondences between object case and aspectual classification

3) to find out the differences between simple and particle verbs in terms of the correspondence between object case and aspectual classification.

More specifically, these goals have the following motivation and they are pursued considering some peculiarities of Estonian that are explicated shortly. In order to study the relations between argument structure, particles, object case, and aspect, this subsection describes Estonian verbs and verb-complement combinations in terms of Vendler's (1957) classification. A list of remarks about this study:

1) The Vendler activity class is intentionally split into activity and process verbs here.

2) Another goal of this section is to present the data about the relation between the object case of the verbs and the verbs' aspectual classification. Therefore, additional crosscutting distinctions are assumed in the presentation of the data, for instance, the facts about the typical object case or transitivity.

3) The emphasis is on particle verbs. The motivation for this emphasis is that the area of (Estonian) particle verbs is less studied in connection with an aspectual classification and their similarities and differences from simple verbs. From among particle verbs, only those that are formed with an aspectual particle (frequently referred to as the "perfective" particles in the Estonian tradition) are considered, that is, particles that have developed from lative adverbs.

4) None of the verb lists is exhaustive.

Stative verbs are the subject of Subsection 3.2.1, activity and process verbs are discussed in Subsection 3.2.2, accomplishment verbs can be found in Subsection 3.2.3, and achievement verbs are the subject of Subsection 3.2.4.

3.2.1. Stative verbs

Stative verbs describe stative eventualities; they do not denote change over time. They have homogeneous reference, and generally they are not agentive. They are described with the features + durative, - dynamic, - endpoint in several sources. Here I list some principles that are widely applied for classifying verbs as stative verbs.[27]

1) They cannot appear in sentences that can be interpreted habitually (*as usual*-test)
2) they typically do not appear in imperatives
3) they cannot be complements of *persuade, make, force, etc*
4) they do not allow modification by manner and instrument adverbs
5) they are incompatible with agentivity (the *deliberately*-test)
6) they do not appear in *do*-like pseudo-cleft sentences (that is, *tegema*-based ones).

Stative verbs in Estonian appear in sentences that have partitive or total objects. In that respect they may be divided into three groups:

1) partitive object statives (2.1.1),
2) total object statives (2.1.2)
3) total and partitive object statives (2.1.3).

These three groups will be discussed in turn in the following three subsections.

3.2.1.1. Partitive object stative verbs

Partitive stative verbs are those stative verbs that denote a stative situation, and these verbs occur with the partitive object in a sentence. The subsection presents also particle verbs in 3.2.1.1.2.

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[27] I add some distributional tests that are useful for filtering out Estonian stative verbs.
As infinitives, state verbs may be complements of certain inchoative verbs. Assuming a state (if this is possible) is indicated with the inchoative predicates *jääma* 'turn, become' *ma*-infinitive (*jäi uskuma*, from *uskuma* 'believe' - 'was convinced, started to believe'; *jäi seisma,* from *seisma* 'stand' – 'stopped, halted').
As infinitives and in their stative reading, they are not typical complements of the inchoative verb *hakkama* 'start, begin'. And if the state verbs occur as complements of *hakkama* 'start, begin', they cannot denote an incomplete transition to the state denoted by the verb: #*hakkas seda juba uskuma, aga veel ei uskunud seda täielikult* 'he started to believe it, but he did not believe it entirely, really'.

3.2.1.1.1. Transitive simple stative verbs

Examples of verbs that fail the above described tests and occur with the partitive object in a sentence, therefore qualifying as partitive stative verbs are *pooldama* 'to be on the side of, to support', *mõistma* 'understand, realize' as in example (1) (also the verbs in 3.1.2.2 under (12).[28]

(1)
Mari   mõistis   Toomast.
M.nom   understood.3.sg.past   T.part
'Mary (has) understood Toomas.'

Although many if not most of the Klaas's (1999) hard partitive verbs and Rätsep (1978) or Tauli (1968) irresultative verbs are stative, not all of them are stative in all of their uses by the tests above. An example is the verb *solvama* 'insult' as in sentence (2).

(2)
Mari solvas   Toomast.
M.nom insult.3.sg.past Thomas.part
'Mary insulted Thomas, Mary was insulting Toomas.'

Verbs of this type can occur in habitual contexts, in imperatives, they can be complements of *persuade,* they allow modification by manner and instrument adverbs, etc. However, these verbs allow for a stative reading if Mari is more understood as an attitude of Mari, paraphrased as in (3). The tests fall out as stative in (3) and also in (2).

(3)
Mari   hoiak   solvas   Toomast.
M.gen   attitude.nom   insult.3.sg.past Thomas.part
'Mary's attitude insulted Thomas.'

This sentence (3) above rather describes an attitude of Toomas with regard to the attitude of Mari than any activiy of Mari. In sum, the predicate is about a stative relation. Manner adverbs, even if they have the form that is usually taken to lead to a resultative verb pattern with the total object possibility (as a terminative phrase would in Rätsep), can modify these verbs in their stative occurrences, as seen from example (4).

(4)
Mari   hoiak   solvas   Toomast   südamepõhjani/kohutavalt.
M.gen   attitude.nom insult.3.sg.past Thomas.part   bottom-of–the-heart.term/terribly
'Mary's attitude insulted Thomas deeply/terribly.'

Non-stative and stative meanings emerge in sentences with several particle verbs that are transitive. These basically stative verbs occur with the partitive object, on similar conditions with the examples with the verb *solvama* 'to insult'.

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[28] I restart the numbering of examples in this subsection.

3.2.1.1.2. Stative particle verbs

Some examples of stative verbs with a particle follow in (5) below.

(5)
ette heitma 'reproach (as an attitude)', *(endast) ette kujutama* 'imagine to be', *imeks panema* 'be surprised at', *järele aimama* 'be like something', *pealt nägema* 'see (involuntarily)', *pealt kuulma* 'hear (involuntarily)', *silmas pidama* 'mean sth concrete', *taga nutma* 'mourn, cry for sth/sb (in the figurative sense)', *tähele panema* 'keep in mind', *üle hindama* 'overestimate', *välja kiirgama* 'radiate something, emit radiation', *välja vabandama* 'serve as an excuse', *välja lugema* 'be interpretable, understandable', *välja lugema* 'be interpretable, understandable', *ära juhtima* 'redirect', *ära kasutama* 'use for ones own purposes'.

I have found two stative intransitive verbs with a particle and with an elative and allative complement: *ära elama* 'make ends meet, survive, live on sth', *välja tegema* 'choose to notice, take offence'.

There are some particle verbs that are intransitive and stative, mainly denoting positions, ways of being, emission. Naturally, there exist simple stative intransitive verbs such as *puuduma* 'be missing'. Examples are presented under (6):

(6)
välja sopistuma 'bulge out', *välja sirutuma* 'stretch out', *välja vaatama* 'stretch, hang out', *ära jääma* 'be cancelled'.

On the basis of these stative verb-particle combinations it can be concluded that a typically aspectual particle, in combination with a verb, does not necessarily bring about telicity. The combination of such a particle with a verb does not result in an achievement or an accomplishment predicate. The compositions are opaque and have their own aspectual and case marking characteristics. It can be observed that the particle does not co-occur with the total object case in transitive sentences either. In the stative verb-particle combinations discussed in this section, the object case is invariantly partitive. The aspectual properties and typical case properties of both verbs and verb-particle combinations display a correlation between stative meaning and partitive object case. These examples suggest that the verbs with particles can be regarded as lexical units that have their own aspectual properties such as stativity.

3.2.1.2. Total object stative verbs

Total object statives are those stative verbs that give rise to sentences that describe states and their object case is total. There are two groups of the stative[29] total object verbs:

a) those where the verb in the stative meaning occurs only with a total object:

poolitama 'divide in two, half' (7), *jagama* 'divide'[30]

(7)

Jõgi	*poolitas*	*linna*	*kaheks*	*võrdseks*	*pooleks.*
river.nom	divide.3.sg.past	town.gen	two.transl	equal.transl	half.transl

'The river divided the city in two equal halves.'

b) those that have an "alternation" between a nominative case objects as in (8) and a total case marked phrase as in (9) with sentences with the verb *maksma* 'cost'.[31]

(8)

Raamat	*maksab*	*vaid*	*üks*	*dollar.*
book.nom	cost.3.sg	only	one.**nom**	dollar.nom

'The book costs only one dollar.'

(9)

Raamat	*maksab*	*vaid*	*ühe*	*dollari.*
book.nom	cost.3.sg	only	one.**gen**	dollar.gen

'The book costs only one dollar.'

Estonian stative alternations of this kind have not been addressed earlier.

In sum, these verbs with total objects describe measurable extents or configurations, sums, etc. Some of these verbs have additional activity and accomplishment readings.

3.2.1.3. Total and partitive object state verbs

Here I present an object case alternation type of stative transitive verbs that I call extent and property alternation (*piirama* 'border as obstacle', *raamima* 'frame', *ääristama* 'border as

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[29] I exclude here the readings of the same verbs in their possible nonstative meanings.

[30] Some members of this group (total object stative verbs) have actitvity readings. In that case they do have partitive objects:

Mari	*poolitas*	*leiba*	*kaheks*	*võrdseks*	*pooleks.*
M.nom	divide.3.sg.past	bread.part	two.transl	equal.transl	half.transl

'Mary divided, was dividing the loaf of bread in two equal halves.'

The accomplishment reading of these verbs is illustrated below; the object case is total.

Mari	*poolitas*	*leiva*	*kaheks*	*võrdseks*	*pooleks.*
M.nom	divide.3.sg.past	bread.gen	two.transl	equal.transl	half.transl

'Mary divided the loaf of bread in two equal halves.'

decoration', *katma* 'cover'). This subsection introduces the stative verbs that can appear in sentences with total objects or partitive objects and that seemingly have free variation of object case. This alternation is illustrated in (10) and (11). Sentence (10) represents the *extent stative* alternate of the object case alternation pair.[32]

(10)
Habe	*kattis*	*mehel*	*terve*	*näo.*
beard.nom	cover.3.sg.past	man.ade	whole.gen	face.gen

'The beard covered the man's whole face.' (Tauli 1968)

In sentence (10) with the total object, a state is described. There is a possibility of understanding the state as a result of the beard growing and by slowly covering the parts of the face, reaching the extent of covering the whole face. However, the result interpretation is not the first interpretation of that sentence. The first interpretation of the state is about the extent of the spatial coverage of the object referent; the sentence describes how much of the extent of the face is covered by the beard. The parallel sentence (11) with the partitive object also describes a state, but this sentence does not describe the state of the extent of coverage of the face by the beard but rather a property of the man or the beard. Sentence (11) is an example of a *property stative*.

(11)
Habe	*kattis*	*mehel*	*tervet*	*nägu.*
beard.nom	cover.3.sg.past	man.ade	whole.part	face.part

'The beard covered the man's whole face.'

Sentence (11) cannot decribe the result of the beard growing and then reaching the extent of covering the whole face. Sentence (11) can contain (total-case marked) durative adverbials such as *terve nädala* 'for the whole week', sentence (10) cannot. The extent state sentences (12) cannot be bounded whereas the property states are boundable, combinable with measure phrases (13).

(12)
*Habe	*kattis*	*mehel*	*terve*	*näo*	*terve nädala.*
beard.nom	cover.3.sg.past	man.ade	whole.gen	face.gen	whole week

'The beard covered the man's whole face for a whole week.'

(13)
Habe	*kattis*	*mehel*	*tervet*	*nägu*	*terve nädala.*
beard.nom	cover.3.sg.past	man.ade	whole.part	face.part	whole week

'The beard covered the man's whole face for a whole week.'

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[31] These complements that are more like measures or extents have been shown to behave differently than the usual objects, for instance, with regard to passivization as pointed out by Jackendoff (1990) and Dowty (1991) ("one dollar was cost by the book" is impossible).

[32] The sentence with the total object case is mentioned in an example in Tauli (1968).

In sum, some stative verbs, such as those of coverage, have object case alternation. The stative sentences containing verbs that describe an extent have total objects, and those that describe a property have partitive objects. The extent state sentences cannot be temporally bounded while the property states are boundable, combining with measure phrases. The reason may be that two measures are not allowed with one predicate. These verbs are problematic for a purely aspect-based account of object case, since they do not denote an event, they occur in an imperfective sentence, but their object case is total.[33]

3.2.1.4. Summary to subsection 3.2.1

The results of the study of stative verbs are summarized in Table 3.1. Transitive sentences with stative verbs typically have partitive objects. Stative verbs are not a uniform class with regard to object case, since some stative verbs in Estonian appear in sentences that have partitive or total objects. I divide stative verbs into three groups according to their occurrence with either object case: partitive object statives (*pooldama* 'to be on the side of, to support', *mõistma* 'understand, realize'), total object statives (*poolitama* 'halve, divide', *maksma* 'cost') and extent as opposed to property alternational, that is, total as opposed to partitive object statives (*katma* 'cover'). Several stative verbs describing extent have the total object case and these sentences can be analysed as describing measures or extents. The division between the stative verbs is presented in Table 3.1.

Table 3.1. Stative transitive verbs and object case.

Object case	partitive object statives	total object statives	total vs. partitive object statives
Example	*pooldama* 'to be on the side of, to support', *mõistma* 'understand, realize', some particle verbs	*poolitama* 'halve, divide', *maksma* 'cost', no particle verbs	*katma* 'cover', no particle verbs
Description	These verbs describe attitudes, properties, or relations	These verbs describe measurable extents of configurations, extents etc	These are extent state vs. property state alternational pairs.

Compared to stative atelic verbs, activity verbs are more uniform in their object case.

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[33] Tamm (to appear, b) shows that there are no valid tests yet discussed for establishing the object relation in Estonian stative verbs. Therefore, it is strictly speaking, difficult to verify the objecthood of the total case marked phrases in question.

3.2.2. Activity and process verbs

3.2.2.1. Activity verbs

Activity verbs have homogeneous reference; they are described as agentive and atelic. Activity verbs are subsumed under dynamic verbs in many typologies (*jooksma* 'to run', *tegelema* 'to deal with, to be busy'). These verbs are positive in agentivity tests, thus, in most cases, give the opposite result in the tests that diagnose stativity (see Subsection 2.1 for criteria). They are described with the features +durative, +dynamic, -endpoint in several sources. These verbs occur in well-formed sentences with durative adverbials (for an hour/year/minute, etc), they can be modified by *deliberately, slowly*, other manner and also instrument adverbs, be complements of *persuade,* or *force.*

3.2.2.1. Simplex activity verbs

Activity verbs are intransitive and transitive (14)-(16). Sentences describing activities have invariantly a partitive object when transitive (16).

(14)
Mati   jooksis.
M.nom run.3.sg.past
'Mati was running, Mati ran.'

(15)
Mati   tegeles   voolimisega.
M.nom deal/with.3.sg.past   modeling.comit
'Mati was dealing with modeling, Mati was modeling.'

(16)
Mati   vaatas   filmi.
M.nom watch.3.sg.past   film.part
'Mati was watched a/the film, Mati was watching a/the film.'

However, the basically intransitive activity verbs can occur with partitive marked distance and temporal measure/extent phrases (17)-(19).

(17)
Mati   jooksis   ühte   kilomeetrit.
M.nom   run.3.sg.past   one.part   kilometer.part
'Mati was running one kilometer.'

Temporal measure phrases that appear in the partitive case in sentences with activity verbs are less felicitous than the distance ones (18), (19), but possible.[34]

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[34] Tamm (to appear, a) discusses the partitive plural case marking of measure phrases, such as follows:
Takso   sõidutas   Peetrit   mitmeid kilomeetreid   edasi.

(18)
?Mati jooksis (oma) ühte tundi.
M.nom run.3.sg.past (own/his) one.part hour.part
'Mati was running for one hour, Mati did his one-hour running'

(19)
?Mati tegeles (oma) ühte tundi jooksmisega.
M.nom deal/with.3.sg.past (own/his) one.part hour.part running.comit
'Mati was dealing with running for an hour, Mati was running for an hour.'

It is a topic of discussion what is the aspectual contribution and syntactic status of various measure phrases. Some aspects of the accusative and partitive alternation in marking temporal adverbials in Finnic is studied by Nelson (2003). She establishes that only one accusative case marked phrase, either the argument or the adverbial, is allowed in Finnish clauses, whereas Inari Saami can have more phrases with accusative marking. Haspelmath (1997:38) describes measure phrases as representing atelic extent as opposed to telic extent. Fowler and Yadroff (1993) discuss the argument or non-argument status of the measure phrases in Russian; the relation between the argument status and aspectual effects of Russian accusative-marked NPs and *pro*-prefixation is discussed in Fici (1999). Estonian regular case alternation points to the argumentlike status of these phrases in the previous examples; Tamm (to appear, a) contains some discussion on measure phrases and their different syntactic status. Komlósy (1992), followed by Kenesei (2000), tend to treat these phrases as (peripheral) arguments. Komlósy (1992:317, 451, 457) contains a discussion of some measure phrases in Hungarian and notices the aspectual type-changing properties of these phrases. Depraetere (p.c.) would consider these examples telic on condition that Mati has intended to run one hour (beforehand); in terms of reference to an event with a set endpoint (cf. Krifka 1992), these examples are atelic predicates.

3.1.2.1.2. Particle verbs describing activities

Particle verbs are not typically activity verbs, but there are some. Among intransitives there are the following verbs: *peale käima* 'insist', *peale tungima* 'attack', *maha kirjutama* 'to copy'. Other particle verbs that are activity verbs in one of their readings are listed in (20). Many of these verbs are also listed under stative verbs where these verbs were understood as desribing certain states of mind or attitudes. Here, they are understood as concrete activities.

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taxi.nom drive.3.sg.past Peeter.part many.pl.part km.pl.part_further
'Taxi was driving/drove Peeter many kilometers further.'
Tamm (to appear, a) argues that in contrast to the partitive marked phrases in (17) – (19), this is an instance of an adjunct.

(20)
ette heitma 'reproach (concretely)', *järele aimama* 'mock, play sb or sth, act as sb',
pealt kuulama 'eavesdrop, listen to', *pealt vaatama* 'watch (as sth is going on), observe',
taga nutma 'cry for sb'.

In sum, transitive activity verbs, whether simple or with a particle, occur with partitive objects. Measure phrases—objects or adverbials—in sentences describing activities are also marked with the partitive case. Activity verbs can appear with a measure phrase that is marked with the total case, but it is unclear whether the type of event these verbs describe is an activity then. Therefore, discussing those cases is postponed and will be addressed in Chapter 7; see also Tamm (to appear, a). Particled and simple verbs that describe activities are transitive or intransitive.

3.2.2.2. Process verbs

In some typologies, activity verbs and process verbs are treated as one aspectual class. Process verbs have the negative result in the tests that diagnose stativity (see subsection 2.1 for tests) and the tests that diagnose agentivity. Process verbs occur in well-formed sentences with durative adverbials (*for an hour/year/minute*, etc), they can be modified by *slowly*, by other manner and also instrument adverbs, but they cannot be modified by *deliberately*, or be complements of *persuade, force*, etc. They have homogeneous reference and are called atelic in literature, but they are not agentive. There are some morphemes that are typical of process verbs (cf. *EKG II*, Sulkala 1996). Examples of process verbs are *tilkuma* 'drip', *voolama* 'flow, run' (see example (21)), *lendlema* 'fly here and there', or *pudenema* 'fall apart, fall down in scattered pieces'.

(21)
Vesi   tilkus/voolas.
water.nom   drip/run/flow.3.sg.past
'(The) water was dripping/running/flowing.'

Process verbs have either nominative or partitive subjects. The following examples (22) – (24) present the possible case alternations of some process verbs *tilkuma* 'drip' and *voolama* 'flow, run'. These examples show that the case alternation does not correspond to any aspectual alternation in the case of these process verbs.

(22)
Kraanist   tilkus/voolas   tund aega   vett.
tap.elat drip/run/flow.3.sg.past   one.nom hour.part   water.part
'Water was dripping/running/flowing from the tap for an hour.'

This sentence (22) has an elative and a partitive complement. It describes the process of the substance water (partitive marked) dripping or flowing from the location tap (elative marked).

(23)
Kraanist   tilkus/voolas   tund aega   vesi.
tap.elat   drip/run/flow.3.sg.past   one.nom hour.part   water.nom
'Water was dripping/running/flowing from the tap for an hour.'

This sentence (23) has an elative and a nominative complement. It describes the process of the substance water (nominative marked) dripping or flowing from the location tap (elative marked).[35] The partitive/nominative alternation is possible with most intransitive process verbs and the alternation does not correspond to any aspectual alternation, as in (25) and (26).

(25)
Tuules   lendleb   lehti.
wind.ine   fly.3.sg   leaf.pl.part
'There are leaves flying in the wind.'

(26)
Tuules   lendlevad   lehed.
wind.ine   fly.3.pl   leaf.pl.nom
'Leaves are flying in the wind.'

These sentences describe events with no endpoint. The subject case alternations of these examples are described in more detail in Nemvalts (1996) and (2000).[36]

Presently, I am unaware of process verbs that have an aspectual particle. In the context of this dissertation it is worth mentioning that the adverb or particle *edasi* 'further' can occur with process verbs.[37]

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[35] The following sentence has a partitive and a nominative complement. It describes the process of the substance water (partitive marked) dripping or flowing from the location tap (nominative marked).
Kraan   tilkus/jooksis   tund aega   vett.
tap.nom   drip/run/flow.3.sg.past   one.nom hour.part   water.part
'Water was dripping/running/flowing from the tap for an hour.'

Process verbs are predominantly intransitive verbs, they occur in sentences with partitive or nominative subjects. It must be, however, noted that in Estonian sources it is a subject of discussion what is the syntactic function of the nominative and partitive complements here. The partitive marked theme complement is frequently treated as being between objects and subjects. In sum, the partitive or nominative alternation of what can be considered the subject (or an object) in the sentences with process verbs *tilkuma* 'drip' and *voolama* 'flow, run' does not influence the interpretation of the verb as a process verb. The range of frames that are available for verbs of liquid emission is not possible with other verbs of emission.

[36] Nemvalts (2000), however, discusses also cases where subject case alternation corresponds to aspectually opposite sentences, such as discussed in Section 2.6.2 (examples number (31), (32) *Saabusid külalised.nom vs. külalisi.part saabus,* 'guests arrived, were arriving'). In my assessment, the sentence with the nominative NP version has a focused NP, while the partitive marked NP is not necessarily focused. Otherwise, both sentences can be imperfective or perfective.

[37] See Kiefer (s.d.:238) for possible tests that distinguish the adverb and verbal prefix *tovább* 'further' from each other in Hungarian. As an adverb, it can only mean temporal progress; as a verbal prefix, temporal or spatial progress.

3.2.3. Accomplishment verbs: total objects

There are various definitions and understandings of accomplishment verbs. They are described with the features + durative, + dynamic, + endpoint in several sources. For a description, I have opted for the understanding of accomplishment verbs as verbs that denote events that have a preparatory process (activity) phase that leads to a definite change in the situation. These verbs typically denote nonhomogeneous events. There is an alternative understanding of verbs denoting events. According to this idea, accomplishment verbs are agentive and achievement verbs are non-agentive verbs that can refer to events. I do not follow this idea here, since there are agentive verbs that are achievement by the preparatory phase criterion, and there are nonagentive verbs that are accomplishments by the preparatory phase criterion. However, argument structure as opposed to a notion that is closer to durativity does not seem to contribute to case phenomena. Ultimately, in a grammatical model proposed in Chapter 7, the idea of preparatory phase is not directly used and bundles of features—not event types—determine the interaction with case in the model. In the presentation of the Vendlerian accomplishment class, I rely on the following tests.

a.   On the one hand, verbs (or VPs) that can denote accomplishments are distinguished from activity or process verbs by the positive result of the time frame adverbial test (such as *ühe tunniga* 'in an hour').

b.   On the other hand, they are distinguished from achievement verbs by the positive result for the durative adverbial test (such as *tund aega, üks tund/ühe tunni* 'for an hour').

Verbs such as *sööma* 'eat', or *valmistama* 'prepare, create' and most particle verbs qualify as accomplishment verbs, since with a quantized argument NP they denote events that have a preparatory process (activity) phase that leads to a definite change in the situation. This change can be qualified as an endpoint, a result, or a completion. Because of this two-phase like structure, accomplishment verb tests are identical with activity/process verbs and achievement verbs. The tests find out whether the verb shows common features achievements via the verb's acceptability with the time frame adverbials such as *ühe tunniga* 'in an hour' (27); also, the tests fix their similarity with the activity/process verbs via the acceptability with the durative adverbials such as *tund aega, üks tund/ühe tunni* 'for an hour' (28) etc.

(27)
Mari   ostis   ühe tunniga   raamatu.
M.nom   buy.3.sg.past   in an hour   book.gen
'Mari bought a/the book in an hour.'

(28)
Mari   ostis   tund aega   raamatut.
M.nom   buy.3.sg.past   one.nom hour.part   book.part
'Mari was buying (a)/the book for an hour.'

The sentences with the durative adverbial have objects that bear the partitive case and the sentences with the time frame adverbial bear the total case. The acceptability of the verbs with the durative adverbials may vary, for instance, the sentence (28) contains a verb *ostma* 'buy' that is less acceptable, forced, with the durative adverbial, and in the case with *ehitama* 'build' (29, 30), the result of the test is more acceptable and natural.

(29)
Mari   ehitab   suvila.
M.nom build.3sg   summer cottage.gen
'Mari builds a summer house.'

(30)
Mari   ehitab   suvilat.
M.nom build.3sg   summer cottage.part
'Mari is building a summer house.'

Therefore, I divide the accomplishment verbs as the ones that are more acceptable with the durative adverbials (31) and the ones that are less acceptable with the durative adverbials, yielding a forced effect (32). That is, in the cases listed under (32), the durative adverbial is felt to force a durative, activity or process reading. This distinction in acceptability with durative adverbials correlates with the acceptability of the occurrence of the verb with the partitive object.

(31)
tegema 'make', *alistama* 'subjugate', *ehitama* 'build', *istutama* 'plant', *kirjutama* 'write', *omandama* 'acquire', *rajama* 'create, establish', *trükkima* 'print', *äratama* 'rouse, (make) wake up', *looma* 'create', *parandama* 'repair', *kujundama* 'shape, design, form', *sooritama* 'make (exam, etc)', *koostama* 'compile', *moodustama* 'form, create', *keetma* 'boil', *voltima* 'fold', *tooma* 'bring here, fetch', *kutsuma* 'call, invite'

(32)
laenama 'borrow/loan', *tekitama* 'create, bring to being', *võtma* 'take', *saama* 'get, become', *haarama* 'grab', *avastama* 'discover', *saavutama* 'achieve, attain'

Most particle and verbs complexes denote either accomplishments or achievements. Particled accomplishment verbs are predominantly transitive and typically occur with total objects. Most verbs with *välja,* roughly one third of the examples with *ära*, are accomplishments. Some examples: *välja arendama* 'develop'; *välja koolitama* 'educate, specialize'; *välja*

kühveldama 'shovel out'; *välja laadima* 'load out'; *välja laduma* 'heap out'; *välja laotama* 'spread out'; *välja loksutama* 'splash out'; *välja loopima* 'throw out'.

In sum, the case alternation that occurs with the accomplishment verbs has an effect on aspect.

3.2.4. *Achievement verbs: total and partitive objects*

Achievement verbs denote events, but their meaning does not contain the preparatory phase that is characteristic of accomplishment verbs. They are described with the features -durative, +dynamic, +endpoint in several sources. I divide the achievement verbs according to their typical object case.

3.2.4.1. Partitive object achievement verbs

This is a class of achievement verbs that has fewer members than the total object achievement verb class. This is a class of delimited, bounded event denoting verbs of which it is occasionally problematic to claim that they are achievements; nevertheless, I classify some verbs on the basis of some common features here as achievements; see also Subsection 3.1.2.1 point 6 for discussion on their characteristics and some diagnostics.

This group consists of some perception verbs such as *märkama* 'notice' (33), occasional verbs that denote physical contact *puudutama* 'touch' or harm *vigastama* 'harm, injure' (34), *rikkuma* 'ruin, spoil', some other verbs *võitma* 'to win' (35), *solvama* 'insult', *tutvustama* 'introduce, make acquainted', and some inceptive-inchoative verbs such as *alustama* 'begin, start' (36).

(33)
Märkasin   ühe hetkega   viga.
notice.1.sg.past   in a moment   mistake.part
'I noticed a mistake in a moment.'

(34)
Vigastasin/puudutasin/rikkusin   ühe hetkega   kätt.
harm/touch/ruin.1.sg.past   in a moment hand.part
'I hurt/touched/ruined (my/the) hand.'

(35)
Võitsin   Peetrit ühe hetkega suusatamises.
win.1sg.past   P.part   in a moment skiing.ine
'I won Peter in skiing in a moment.'

(36)
Õpetaja   alustas   ühe hetkega   tundi.
teacher.nom   start.3.sg.past in a moment   lesson.part
'The teacher started the lesson in a moment.'

On the other hand, combining these verbs with the durative adverbial may result in iterativity, which also proves that these verbs may denote (full) events. It is a question if these verbs denote events with a distinct endpoint that is described by these predicates. It seems most plausible that these events do not have any preparatory phases that can be referred to by the same predicate either. On the other hand, these events in some of their uses do not have a clear unchangeable definite resultant state.

From the (idiomatic) composite verbs (*väljendverb*) I found an example for partitive achievement verb (37), but the combination with a partitive object is not attested for the traditional particle verbs that denote an achievement.

(37)
Panin   viga   tähele.
notice.1.sg.past   mistake.part   (part of 'notice')
'I noticed a mistake.'

In the case of this verb, the judgements vary about whether the case is partitive or total.

If the verb is achievement by tests but its object case is partitive, then the verb is henceforth occasionally called a "surprise" or "partitive" achievement verb. These verbs do not confirm the aspectual hypothesis that transitive verbs that refer to events or sentences with perfective aspect should have total objects. Surprise achievement verbs are thus problematic for a purely aspect-based understanding of object case since they denote an event and appear in perfective sentences, but they occur with a partitive object.

3.2.4.2. Total object achievement verbs

Most of the transitive achievement verbs occur with a total case object. Examples are *leidma* 'to find', *kaotama* 'lose', *jätma* 'to stop, to leave, to quit', *andestama* 'forgive', *minetama* 'forfeit, lose', *unustama* 'forget' etc. These verbs are compatible with the time frame adverbial (e.g., *in an hour*). There is a difference between achievement verbs that allow and do not allow modification with rate (gradable) adverbials such as slowly. However, achievement verbs form a in contrast with the accomplishment simple verbs, which can have a partitive object case with a rate adverbial, as in (38).

(38)
Mari   ehitab   suvilat/suvila   aeglaselt.
M.nom build.3sg   summer cottage.part/gen   slowly
'Mary is building slowly a summer house.'

Achievement simple verbs, such as *unustama* 'forget' or *kaotama* 'lose' (39) cannot have the partitive object case in a sentence with a rate adverbial. These sentences are relevant for verifying the gradable nature of the predicate. These achievement verbs are occasionally acceptable and occasionally not acceptable with gradable adverbials and the total object.

(39)
Mari   unustas/ kaotas   oma sõbra   (# sõpra/??numbri/#numbrit)   aeglaselt.
M.nom forget/lose.3sg.past.   her friend.gen   friend.part/number.gen/number.part   slowly
(Intended meaning) 'Mary forgot her friend/her number, it happened slowly.'

Sentence (40) displays a somewhat contradictory fact that reference to temporal progression or span by means of a durative adverbial is not possible with these verbs and in this respect these achievement verbs resemble some stative verbs.

(40)
#Mari unustas/kaotas   oma sõbra/sõpra/numbri/numbrit   terve aasta.
M.nom forget/lose.3sg.past   her friend.gen/friend.part/number.gen/number.part   whole year
Intended meaning: 'Mary lost her friend/her number, it happened for a year.'

These examples (38)-(40) p

rovide relevant facts about the nature of achievement verbs and event predicates. First, some event predicates simultaneously seem to refer to temporal progression (since they are modifyable by *slowly* in (39)) and an event (the total case is not related to extent case marking in (39) as is the case with some stative verbs). Simultaneous reference to temporal progression and to full (non-homogeneous) event is not evident with all occurrences of event verbs, as suggested by the data of the possible partitive object with the accomplishment verb in (38). Second, I can exclude the quantification of the object NP from the factors that have any relation to the object case. The quantification of the object NP ((her) friend, (her) number) is constant, but there is variation in the acceptability of sentences with the same total object cases. Third, the somewhat zeugmatic effects suggest that it is possible that losing or forgetting friends and numbers are separable as instances of verbal polysemy, of different lexical entries that have their own selectional restrictions, aspectual type etc. What is more important is that once you lose or forget a friend or a number, however long it might take you, there is finally no more losing or forgetting them. Fourth, sentence (40) shows that any reference to temporal span or duration can be expressed by accomplishment verbs only (naturally, also with activity and process verbs and some state verbs). Sentence (40) displays

the fact that achievement verbs, as opposed to accomplishment verbs, are not compatible with durative adverbials.

Some examples with the achievements with particles: *ära surema* 'die', *ära tapma* 'kill', or *välja tegema* in the sense 'offer, buy'.

In sum, there is a natural lexical class of total object achievement verbs.

3.2.4.3. Degree achievement verbs

The discussion of degree achievement verbs wishes to point out that there is a class of verbs that displays variable characteristics in referring to events. This is the class of verbs, often referred to as degree achievement verbs (Dowty 1979) or verbs of gradual change (this term is used in Metslang 1994), such as *widen, lengthen, deepen,* etc. These verbs denote a gradual change of a property, a change of state that does not necessarily terminate with a clear, definite, and unchangeable result state. Degree achievement verbs are transitive or intransitive. Estonian intransitive degree achievement verbs are typically derived from adjectives by means of the morpheme *–ne* that denotes gradual change. The meaning of such verb is *become adj-er,* such as *laienema* 'widen, become wide' in *tee laienes* 'the road widened', which can be paraphrased as 'the road became wider'. There are two aspectually distinct ways of deadjectival verbal derivation by morphemes that are interesting in this discussion. The morpheme (*-ne-*) contributes to the verb's meaning that the property denoted by the base adjective has increased by at least some, minimal extent. The other morpheme (*-u-*) contributes to the meaning of the verb that the property denoted by the adjective occurs to a full, maximal extent. The *–u-* morpheme typically derives verbs that appear in telic sentences. These verbs may be from an identical base with the *–ne*-verbs, their meaning can be represented as *become adj*. The *–u*-morpheme is not discussed in detail here, but it must be introduced, since Chapters 4 and 7 will take up some related issues.[38] These two morphemes of intransitive verbs have a counterpart that derives causative transitive verbs from adjectives, the suffix *–nda-* (*laiendama* 'widen, make wide(r)'). These transitive verbs seem to comprise two aspectual readings: that the property denoted by the base adjective has increased by at least some, minimal extent or that the property denoted by the adjective occurs to a full, maximal extent. More examples with the degree achievement verbs with morphologically related transitive and intransitive forms follow: *suurenema* 'grow bigger' – *suurendama* 'make bigger', *laienema* 'widen' – *laiendama* 'make wider', *muutuma* 'change' – *muutma*

'make change'. Returning to the aspectual characterization of these verbs, it must be noted that regarding them as achievements is problematic. They qualify rather as accomplishments according to their compatibility with both the time frame (41) and durative adverbials (42).[39]

(41)
Firma   laiendas   tee   ühe tunniga.
firm.nom   widen.3.sg.past   road.gen   in an hour
'The firm widened the road in an hour.'

(42)
Firma   laiendas   teed   kaks tundi.
firm.nom   widen.3.sg.past   road.part   two hours
'The firm was widening, widened the road for two hours.'

Indeed, Hay, Kennedy and Levin (1999) point out that it is problematic to regard the equivalent English verbs as achievements. On the basis of entailment tests, they discuss why these verbs should be seen rather as referring to either accomplishments or activities. The case marking pattern of Estonian objects in (41)-(42) confirms that these authors are right in identifying these two different aspectual types in these verbs.

However, my standpoint is that the two sources, Dowty (1979) and Hay, Kennedy and Levin (1999), are both right. One reading of those verbs emphasizes the temporal protraction of the event (activity); the other two readings emphasize the occurrence of an increase or a change. Sentences (41)-(42) illustrate an accomplishment and activity, but the achievement reading is also available for this verb if it appears with a partitive object as in (43).

(43)
Firma   laiendas   teed.
firm.nom   widen.3.sg.past   road.part
'The firm widened the road.'

The classification under the achievement class is problematic from the point of view of the phenomena typically described in connection with the partitive object case in Estonian. The occurrence of partitive objects with achievements is a restricted phenomenon. There is also proof that transitive degree achievement verbs occur with the partitive object naturally, without an iterative or forced effect, exactly as it is the case with activity or accomplishment verbs in (31) (e.g. *build*, etc). These verbs thus occur context-neutrally with partitive objects

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[38] See the studies of Pihlak (1992) and Vihman (2003) on more details about the –*u*-morpheme.

[39] Metslang (1993a:331) mentions degree achievements in connection with the progressive: with the *järkjärgulist muutust väljendavad verbid* 'verbs expressing gradual change', whereby the situation can be understood as a telic process or an achievement (*situatsioon võib olla mõtestatud nii eesmärgistatud protsessina, või saavutusena*). See Tamm (2003a), Metslang (1993b, 1993c) and Erelt (1985) for Estonian progressive, which is similar to Hungarian absentive (de Groot 1995). See also Bertinetto and Squartini (1995) for a discussion on 'gradual completion verbs' and tests.

in the durative sentence (42). Therefore, the intuitive classification of these verbs under achievements needs justification. First, the sentences with partitive objects denote primarily activities. However, the intuition that is difficult to capture about sentence (43) is that it describes an expired, full event in its own right regardless of the partitive object case. The traditional test with the time frame adverbial is acceptable with this sentence with the verb and a partitive object (44) and this is the test that I consider evidence that the verb has indeed also an event (achievement or accomplishment) reading with the partitive object.

(44)
(?)Firma   laiendas   kahe tunniga   teed.
firm.nom   widen.3.sg.past   in two hours   road.part
'The firm widened the road somewhat in two hours.'

However, this sentence may have a context-dependent effect to some speakers. Dependence on context disappears for all speakers with the addition of a phrase expressing (some) extent, such as *mõnevõrra* 'some extent, somewhat', as in (45).

(45)
Firma   laiendas   mõnevõrra   teed.
firm.nom   widen.3.sg.past   to some extent, somewhat   road.part
'The firm widened the road somewhat.'

Sentence (46) combines the time frame adverbial and the adverbial specifying the extent of the change or increase in the property.

(46)
Firma   laiendas   kahe tunniga   mõnevõrra   teed.
firm.nom   widen.3.sg.past   in two hours   (to some extent, somewhat)   road.part
'The firm widened the road somewhat in two hours.'

The unclear question here is the relation between the verb and the extent adverbial: does it indicate compatibility or trigger a different reading? Intuitively, it indicates compatibility, but this is a difficult fact to verify.

However, degree achievement verbs allow for several interpretations and are compatible with many tests. One more way to tell whether a sentence with the total object is an achievement or an accomplishment is to test it with cancelling the completion (47). Accomplishment verbs are positive with the cancelling of the completion, and this verb indeed is acceptable in this test; therefore, the verb has an accomplishment reading.

(47)
Firma   laiendas   teed,   aga valmis ei saanud.
firm.nom   widen.3.sg.past   road.part   but didn't finish
'The firm has widened the road, but it has not finished it yet.'

Similarly to surprise partitive achievements, the verb is compatibe with rate adverbials, as in (48).

115

(48)
Firma   laiendas   teed   aeglaselt/järkjärgult.
firm.nom   widen.3.sg.past   road.part   slowly/bit by bit
'The firm widened the road slowly/bit by bit.'

These verbs are suitable in several tests. In sum, these data show that the *–nda*-affixed verbs are not pure achievement verbs, but rather activity-accomplishment verbs and a special sort of achievement verbs, which occur with partitive objects and resemble the surprise achievements that are discussed in 3.2.4.1.

As a summary to achievements, Estonian achievement verbs occur basically with the total object. Some achievement verbs occur with the partitive object. The degree achievement verbs are different in that they seem to allow for their interpretation as three different Vendler verb types: activity-accomplishment, and the type that is closest to achievement.

3.2.5. Intransitive verbs

There are hypotheses that relate a verb's transitivity or unaccusativity (see Chapter 4 about these hypotheses, Chapter 4 Subsections 4.2.2 and 4.2.2.1 about this term) and its ability to express telicity and related phenomena ("measuring out", "delimitedness"). Intransitive verbs are predominantly process, activity, or stative verbs. However, semelfactive (punctual, momentaneous) verbs are typically intransitive. There are also numerous achievement verbs that lack an object. Instances of intransitive achievement verbs are *surema* 'to die', *jõudma [kuhu]* 'reach something', *saabuma [kuhu]* 'arrive somewhere'. Tamm (1998a:1-2) points out that some intransitive verbs that express aspect occur with partitive subjects while others do not; the morphologically derived ones tend not to allow partitive subjects. Another issue that needs to be clarified is the exact nature of the possible aspectual opposite readings of intransitive verbs. This question emerges with intransitives that are not unambiguously unaccusative, since they are agentive, such as the verb *tutvuma* 'get acquainted'. Another intransitive verb that can express aspectual meaning is *loobuma* 'give up'. According to the durative and time frame adverbial tests, this intransitive verb has only an achievement reading, while *tutvuma* 'get acquainted' has also a possible durative reading.

Intransitive particled achievement verbs are rarely agentive, but there are some, such as *välja murdma* 'break out'. Patient-subject intransitive achievement particle verbs are numerous (49):

(49)
ära murduma 'become broken'
alla jääma [kellele] 'to lose (to somebody)'
üle viskama [kellel] 'make someone fed up with something'

3.2.6. Conclusion to Section 3.2

This section establishes that Estonian has clear event structural transitive verb classes. The section provided a discussion of their characteristics in terms of a Vendlerian classification into states, activities-processes, accomplishments and achievements. Groups of verbs are identified through their behavior in several tests. Their behavior in terms of the tests shows the types of events and the properties of these events that these verbs can refer to. An alternative set of tests is presented in Tamm (2003a). Object case data confirms largely the hypothesis that the total object case is possible with verbs that refer to events. However, verbs can refer to different even types in sentences, and this fact is reflected in object case. The largest group of regular exceptions is the achievement verb class; also, stative verbs are problematic in terms of their complements' case.

3.3. Conclusion to Chapter 3

Section 3.1 shows that the verbs and their relation to object case and combinability with (what have been referred to as bounders) is partly dependent on lexical class. However, the lack of clear criteria that results in some misclassifications and contradictions in sources like the *EKG II* and the accounts of Tauli and Rätsep motivates a further study in Section 3.2. Section 3.2 discusses the Vendler aspectual classification of Estonian verbs. Section 3.2 establishes that stative, process and activity verbs appear mainly with the partitive case object, the accomplishment and achievement verbs can—but need not—appear with the total object. Also, particle-verb combinations belong to all Vendler classes. There are some regular instances of unexpected behavior in terms of the hypothesized correlation between aspectual classification and object case. The relation between objects and the expression of aspectual distinctions is the subject of the following chapter.

Chapter 4. Aspect and objects

4.1. Introduction

This dissertation is a study about the relation between Estonian aspect and objects in general. In the previous Chapter 3 I have established that the object case is partly dependent on factors determined by the classification of verbs. This chapter investigates whether the presence of syntactic objects and aspect are further related. I address the regularity of mapping semantic distinctions to syntax and prove that the meaning element of an unbounded scale is mapped regularly to internal arguments, which are predominantly objects. The interaction of Estonian phenomena is discussed in the framework of Tenny (1994), which works with the concepts of measuring out, event delimitedness, and measuring scale. My data show that verbs' ability to refer to delimited events and measuring out events must be differently understood and represented in a verbal entry; therefore, this ability is less connected to argument realization than assumed by Tenny.

This chapter takes a critical look at some approaches that assume a tight relation between aspect and objects. Many studies, for instance Tenny (1994), van Hout (2000), Ritter and Rosen (1998) have argued that changes in the aspect related phenomena (telicity) in verb meaning result in verb frame changes. Some of these theories (Tenny, van Hout) touch upon the Finnic object case but relate it either to the grammaticalization of delimitedness (Tenny) or definiteness (van Hout). Others, for instance Rappaport Hovav and Levin (2002) or Jackendoff (1996) have argued that the correspondences between aspect and verb frames are too episodic to be considered as a credible basis for a theory of lexical semantics–syntax interface. Yet other studies such as Ackerman and Moore (1999, 2001) develop a framework where the argument selection and the assignment of (the alternative) morphological case are realized according to a basically identical principle ("counting" the proto-role entailments), but at separate levels of encoding. The alternative cases (partitive vs. genitive-nominative) are assigned by separate but related predicates that have different proto-patient entailments. Among these proto-role entailments, an aspectual role entailment of telicity (Ackerman and Moore 1999) or boundedness (Ackerman and Moore 2001) plays a crucial role in the selection of the morphological case of an object but not, e.g., an object as such. The line of research in that source is similar to this dissertation in being predicate based, separating the level of morphological case, and explaining the two types of cases in terms of aspect. Thus, there is one level of operations that determines the verb frames, and there is another level of

operations that determines the concrete object case. This chapter investigates if and to what extent objecthood depends on aspectual distinctions in Estonian.

The reason for choosing Tenny's approach for starting off is its special focus on the relation between aspect and objects, and the intuition about the central role of a measuring scale. Another reason to introduce the terminology of this source is the discussion of particles in Chapter 5, where it is important to demonstrate the special status of a type of particle that cannot be accounted for in terms of Tenny's theory. This chapter presents Tenny's ideas about the lexicon-syntax mapping via an aspectual interface in Section 4.2. Tenny (1994) claims that universal principles of mapping between the lexicon and the syntactic argument structure are governed by aspectual properties. More specifically, she posits a link between the presence of a direct object and the expression of certain aspectual properties such as "delimitedness", or "measuring out of events". Section 4.3 argues that despite the fact that the described hypothesis may explain a fair majority of the Estonian data, the following discussion also provides examples of Estonian sentences that suggest a revision of the hypothesis.

1)   Firstly, there are examples without any direct internal argument that, contrary to expectations, are compatible with Tenny's tests of delimitedness and measuring out.

2)   Secondly, the relations between delimitedness of events, object cases and verbs with particles present a wider array of data than Tenny's theory can capture.

3)   Furthermore, the particle verb data and measure phrase case data suggest an account in terms of two types of delimitedness, delimitedness of non-argument related measuring out, and delimitedness argument related scales, i.e., theme, patient or path related scales.

The following Section 4.2 discusses Tenny's view on aspect and objects.

4.2. Aspectual properties and syntactic argument structure

4.2.1. "Measuring out" as a role of an argument

This subsection presents Tenny's terminology, where "measuring out" and "delimitedness" are central concepts. Tenny's "measuring out" refers to the role played by the argument in marking the temporal terminus of the event (Tenny 1994:10-11). For example, the role of *apple* is to measure out the event in the following sentence (1).

(1)
Thomas ate an apple up.

The complete consumption of the apple marks the end, the limit of the eating event. Measuring out is a composite concept that in turn comprises two concepts: a measuring scale associated with a verb's argument and a temporal bound or delimitedness (Tenny 1994:15). The verb's argument is considered to measure out the event (to be a measuring argument) if it undergoes an internal motion or change that corresponds to the temporal progression of the event. Otherwise, the verb's argument is not considered to measure out the event.[40] Types of measuring out are grouped according to the three types of predicates that have arguments that measure out (underlined here): incremental theme verbs (*build a _house, eat an apple_*), change-of state verbs (*crack the _glass_*), and path-object "route verbs" (*climb the _ladder, walk the Appalachian Trail_*). However, the "cart" in *push the cart to the store* would not be classified as a measuring argument, even if the sentence referring to this event shows in tests that the event is delimited. The "cart" is not a measuring argument, since it undergoes no necessary internal change or motion: the cart is not traversed or changed in the course of the event. Instead, the path to the store measures out this event, and the terminus of this event is the store. Measuring out is a composite concept that comprises a measuring scale and a temporal bound or delimitedness. Delimitedness is addressed below.

4.2.2. Delimitedness of an event: the event has a temporal bound

Delimitedness of an event means that the event has a temporal bound. An event is delimited and has a temporal bound when the measuring scale associated with the measuring argument is traversed completely, when the property of an argument referent is changed entirely (2).

(2)

> Delimitedness is the aspectual property that leads us into the nature of the syntax/lexical semantics interface. Delimitedness refers to the property of an event's having a distinct, definite and inherent endpoint in time. The sentence *John consumed an orange,* for example, describes a delimited event, since the consuming of the orange requires a certain amount of time, and has a definite endpoint; whereas the sentence *John slept* does not describe a delimited event, since sleeping is something that can go on for an indefinite period of time. (Tenny 1994:4)

Whether an event that is described by a certain predicate is delimited is tested by the compatibility with the temporal durative and time frame adverbial tests. For example, the

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[40] On the basis of Tenny, I understand an "internal motion" as the necessary traversal of the argument's referent's dimensions, and "change" as a change in a property of it.

adverbials *for a day/in a day* or *for an hour/in an hour* test delimitedness in the following sentences, (3) and (4):

(3)
Bill pushed the cart (for an hour/*in an hour).

The sentence (3), incompatible with the time frame adverbial and compatible with the durative adverbial, describes a non-delimited event and has a non-measuring argument, "cart". The sentence (4), compatible with the time frame adverbial and incompatible with the durative adverbial, describes a delimited event; it has a measuring argument, the object "house".

(4)
Mary built a house (*for a day/in a day).

In brief, if the sentence is compatible with the time frame adverbial test, it is a way to know that the predicate refers to a delimited event. An insight that I share on the basis of some Estonian data presented in Chapter 3 is the irrelevance of the temporal duration dimension. Tenny does not regard the distinction between achievements and accomplishments linguistically significant. In her terminology, "accomplishments and achievements are delimited; statives and activities are non-delimited. Delimitedness is close to what has been referred to in the literature as telicity, where a telic/atelic distinction is made between events progressing towards a goal and events having no such goal" (Tenny 1994:5). For her, "[t]he distinction between achievements and accomplishments, which hinges on whether an event has significant duration or not, is of secondary importance in this theory" (Tenny 1994:5). Tenny avoids the term of telicity "because it implies a focus on the goal-oriented nature of certain events. It has engendered some confusion among readers, since the 'goal' of a delimited event can be arrival at a certain state as well as a location" (Tenny 1994:125). Thus, when Tenny writes of aspect, she does so in terms of delimitedness.

4.2.3. Tenny's Aspectual Interface Hypothesis (AIH)

One of the strongest hypotheses about the relation between aspect, thematic structure, and argument structure is also put forward by Tenny (1994:2). Her Aspectual Interface Hypothesis (AIH) (5) is formulated as follows:

(5)
>   The universal principles of mapping between thematic structure and
>   syntactic argument structure are governed by aspectual properties.
>   Constraints on the aspectual properties associated with direct internal

arguments, indirect internal arguments, and external arguments in
syntactic structure constrain the kinds of event participants that occupy
these positions. Only the aspectual part of thematic structure is visible
to the universal linking principles. (Tenny 1994:2)

This hypothesis assumes a link between, on the one hand, certain aspectual properties that are
termed "measuring out" and "delimitedness" and, on the other hand, arguments such as direct
objects. In order to see how the constraints on aspectual properties work, and how the
aspectual properties are linked to argument types, it is important to study some of the
constraints in more detail. Since direct objects are an essential part of the following
discussion, passage (6) presents Tenny's formulation of the relation between "measuring out"
and direct objects:

(6)

Measuring out Constraint on Direct Internal Arguments
The direct internal argument of a simple verb is constrained so that it
undergoes no necessary internal motion or change, unless it is motion
or change which 'measures out the event' over time (where 'measuring
out' entails that the direct argument plays a particular role in
delimiting the event).
Direct internal arguments are the only overt arguments that can
'measure out the event'.
There can be no more than one measuring out for any event described
by a verb. (Tenny 1994:11)

This constraint states that the object can undergo internal change and motion only if the
change and motion are connected to "measuring out" the event. Only direct internal
arguments can perform "measuring out"; a verb can describe only one "measuring out" of an
event.

4.2.4. Aspectual roles mediate between the lexicon and syntax

Tenny introduces special aspectual roles that mediate between the lexicon and syntax. One of
these roles is termed as the MEASURE role, and it is "assigned to an argument of the verb,
which (in the event as described by the verb) either undergoes some internal change or
motion, along a single parameter; or provides a scale or parameter without undergoing change
or motion; that measures out and defines the temporal extent of the event" (Tenny 1994:95).
This role represents the link between the temporal progress and the change or traversal of the
entities that are processed. It is unclear from this formulation how to understand the status of
non-argument measure phrases, which measure out and define the (temporal) extent of the

event. A verb may assign the MEASURE role to its argument, and a noun phrase argument may bear it in a sentence. In Tenny's account, an equivalent to MEASURE can also be composed of the other two aspectual roles of PATH and TERMINUS, and PATH is seen as a defective MEASURE role. Given this division of aspectual roles, Tenny (1994:106) defines two (three) verb classes in terms of a common aspectual role grid. Her classes of verbs are the following: 1) verbs with no aspectual roles; 2) verbs with a MEASURE aspectual role and verbs with an alternative to MEASURE, the PATH-TERMINUS aspectual roles (see below and in Table 4.1 for specifications). In Tenny's classification, we have thus two large aspectually distinct classes of verbs, those that have an argument (or argument constellation, with the roles PATH-TERMINUS) that can measure out an event and those that do not have such an argument. Those that have a measure argument (or the equivalent PATH-TERMINUS arguments) refer to events with an event nucleus (i.e., achievements and accomplishments, delimited events). Syntactically, the argument bearing the [MEASURE] role must always be the direct internal argument in Tenny's approach, the argument that bears the [PATH] role may be implicit and the argument that bears the [TERMINUS] role must be the indirect internal argument. The arguments bearing any of these roles cannot be external arguments. Those verbs that have arguments that can measure out an event are divided according to the way their arguments are involved in measuring out the event.

4.2.5. Three verb classes: incremental theme, change of state, and path object

There are three kinds of verbs that have arguments that can measure out an event in Tenny's account. They are divided according to how their arguments are involved in the measuring out of the event:

1)   Incremental theme verbs (Tenny 1994:15). Examples of such verbs are *eat* and *build. Eat (an apple)* and *build (a house)* types of verbs of creation or consumption have incremental themes. There is a final increment in the events described by these verbs, which marks the temporal end of the event. The event's temporal terminus is achieved by progressing incrementally through the apple or the house.

2)   Change of state verbs (Tenny 1994:16). Examples of such verbs include *ripen, crack* and *explode* as in *ripen the fruit*, *crack the glass,* or *explode the bomb.[41]* The event's terminus is achieved by progressing along measurable degrees of change in a property.

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[41] Tenny does not make a linguistic difference between achievements and accomplishments, and *explode's* argument measures out an event as *eat (an apple)* does. An example about the pragmatic

3)   Path object or route verbs (Tenny 1994:17). Path object or route verbs are verbs the argument of which does not undergo any change or motion during the event. However, traversing it provides a measure for the event. Examples of sentences including path objects as discussed in Tenny are *Bill climbed the ladder* and *Sue walked the Appalachian Trail.* Tenny discusses performance or event direct arguments such as in *play a sonata* also as instances of path objects. As the end of the Appalachian Trail determines the end of the walking, the end of the sonata determines the end of the playing event. Increments of the object may be associated with temporal increments of the event. Unlike incremental theme objects, path objects do not necessarily undergo a change during the event. Here I flesh out the types briefly with some examples of Tenny's verbs in Table 4.1.

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nature of the accomplishment-achievement nature is that of a bomb exploding in a slow-motion film. Tóth (s.d.) discusses the relevance of the accomplishment-achievement distinction for Hungarian predicates and their linking properties.

Table 4.1. The typology of Tenny's verbs with their aspectual role grids and examples as in Tenny (1994:108)

Verbs	Verbs and aspectual roles		
1. Verbs with no aspectual roles are unergative, some transitive verbs, stative verbs	pound: study: push: run:	[ ] [ ] [ ] [ ]	
2. Verbs with a MEASURE aspectual role, unaccusative and transitive. 2a. For verbs that ambiguously specify a delimited or non-delimited event, the measuring roles are optional: here are incremental-theme verbs like *eat.*	eat:	[(MEASURE)] [MEASURE] *John ate apple in an hour.* [ ] *William ate the same apple for hours.*	
2b. Other incremental-theme verbs (*build*), and pure change of state verbs (*ripen, freeze, crack*) are not ambiguous, and their MEASURE aspectual roles are not optional.	build: ripen: freeze: crack:	[MEASURE] [MEASURE] [MEASURE] [MEASURE]	
3. Verbs with a PATH-TERMINUS aspectual role grid (*walk, play, push*) and Path-object verbs	walk	[(PATH, TERMINUS)][42] [ ] *Susan walked for hours.* [PATH, TERMINUS] explicit terminus, implicit path: *Susan walked to Canada in sixty days* implicit terminus, explicit path: *Susan walked the Appalachian Trail in sixty days* explicit terminus, explicit path: *Susan walked the Appalachian Trail to Canada in sixty days.*	
	play	[(PATH, TERMINUS)] [ ] *Martha played the sonata for hours.* [PATH, TERMINUS] *Martha played the sonata in twenty minutes* (Tenny 1994:108)	
Verbs indicating an enforced change of location	push	[(PATH, TERMINUS)] [ ] *Bill pushed the rock (but it would not move).* [PATH, TERMINUS] *Bill pushed the rock to the top of the hill.* Tenny (1994:108)	

These verbal entries capture the differences between verbs and their possibilities for having and not having aspectual roles and, consequently, their options for lexicon-syntax mapping. Tenny discusses also Finnish and she concludes that "the distinction between delimitedness

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[42] The function of the parenthesis is to show the non-obligatory nature of the roles.

and non-delimitedness is grammaticalized in the accusative and partitive cases in Finnish; and the distribution of accusative and partitive case reflects the presence and absence of aspectual roles" (Tenny 1994:145). This point must be clarified in the light of Estonian data that show that delimitedness (actual boundedness) and the presence of the aspectual MEASURE role (boundability) are not equivalent concepts. The data about measuring out arguments (arguments that undergo internal change that corresponds to the temporal evolvement of the event) that are realized as partitive objects suggest that it is wrong to assume that the presence of a verbal measure role is a sufficient condition for the emergence of total objects. Neither is reference to delimitedness a sufficient condition for total objects, since delimitedness and partitive objects may co-occur. I do not discuss Tenny's approach to Finnish data further here; Chapter 7 provides my alternative. Tamm (2003b) contains more information on testing the the telicity and non-homogeneous reference of Estonian intransitive verbs, transitive verbs with object case alternation, and a discussion of these data in the light of Tenny (1994) and van Hout (2000).

4.3. Arguments for a different approach

4.3.1. Measuring arguments are not always realized as direct internal arguments

Despite the fact that the described hypothesis explains much data, there are reasons to argue for a more fine-grained approach to the syntax-lexicon interface. The following discussion provides examples of Estonian sentences that suggest a revision of the strong hypothesis of Tenny (1994). Here is a list of data that are problematic in a potential analysis:

1) Aspectual sentences without direct internal arguments (*tutvuma* 'get acquainted').

2) Sentences with verbs with an experiencer (agent) and theme argument,[43] where it is the theme argument that is realized as the (total) object and not the experiencer, which is the argument that undergoes an internal change and should, therefore, provide the measure for the event: *andestama* 'forgive', *unustama* 'forget'.

3) Some of the data on the aspectual particles are puzzling. They suggest, on the one hand, that the Estonian bounding particle[44] *ära*, which can combine with verbs with no measuring argument, is not the kind of particle that is clearly covered by Tenny's account of particles. This particle falls beyond the scope of her theory, as her

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[43] But if several positions of internal argument are assumed, cf. Belletti and Rizzi (1988), some of these phenomena find a solution. In those approaches, there are two internal arguments.
[44] The bounding particle *ära*, see Chapter 5.

examples of Russian verbal aspectual morphology do. On the other hand, the non-argument related expression of measuring out and delimitedness in sentences with this particle and its relation to total case marking suggests that the exact lexical nature of the concepts of delimitedness, measuring out, and their relation to arguments must be revised.

4) The total (accusative) object of non-measuring arguments of verbs such as *andma* 'give' or *lükkama* 'push', as in *andis Marile raamatu* (gen) 's/he gave a book to Mary', *lükkas käru* (gen) *poodi* 's/he pushed this cart to the store'. These data are problematic for Tenny's account of Finnish, where the distribution of accusative and partitive case should reflect the presence and absence of measuring out arguments.

5) The partitive object case that appears in sentences with a measuring argument describing a delimited event (surprise achievements in 3.2.4.1, such as *üllatama* 'surprise') is another piece of evidence of unclear relations between arguments, case, measuring out, and delimitedness.

These were some of the problematic points for applying Tenny's theory to Estonian data. Many additional problems of Tenny's account are pointed out in various sources and not reviewed here; see Jackendoff (1996) for several examples. This chapter discusses primarily intransitive verbs; thus, the first problem is addressed.

4.3.2. Sentences without a direct object, verbs without a measuring argument

One of the problematic issues is the classification of the intransitive predicates that are compatible with Tenny's tests of delimitedness and, therefore, suggest that her aspectual interface hypothesis is too strong. Several sources discuss that there is a relevant split in the classification of intransitive predicates into unaccusative and unergative. The reason for discussing the distinction between unergative and unaccusative is that many events described by intransitive verbs are aspectually delimited, they have clearly a measuring argument and they are compatible with Tenny's theory. Namely, measuring out and the expression of delimitedness that occur with *unaccusative* predicates are accounted for by Tenny's theory. The theoretical framework of Tenny's account regards some surface subjects, the unaccusative ones, as underlying objects (cf. Levin and Rappaport 1995, Perlmutter 1978, Burzio 1981, Belletti 1988). In the GB framework she accepts, for reasons of structural Case assignment, phrases that are originally in the object's configurational position are moved to the subject's configurational position. What are termed *unaccusative* are those intransitive

sentences that have such derived subjects. Predicates that occur in unaccusative sentences are, for instance, *fall, freeze, exist, disappear, roll, glow, cease,* or *survive.* Unaccusative intransitive verbs are, thus, regarded to diverge syntactically, configurationally, from what are called *unergative* intransitive verbs. The subjects of unergative intransitive sentences, on the contrary, have subject phrases that never occupy the position of an internal argument, an object, in any stage of derivation. Predicates occurring in unergative sentences are, for example, *work, speak, shout,* or *bark.* There appears to be cross-linguistic variation if one tries to classify intransitive verbs in either class. Due to the variation in the classification of verbs, there is also no consensus about the nature of the phenomenon of unaccusativity. There are, however, cross-linguistic tendencies that concern thematic roles involved in the two intransitive verb classes. Intransitive verbs that are associated with unaccusativity are typically agentless; intransitive verbs that are associated with the phenomenon of unergativity have typically agents. Levin and Rappaport (1995) show that it is not exactly agentivity that plays a crucial role in the syntactic tests that underlie the mapping to the external and internal argument, and the classification into the unergative or unaccusative type. Rather, the origin of the cause of the event denoted by the verb determines the linking to the external argument position: internal causer maps to the external position. Causer based mapping yields a typology of intransitive verbs where verbs of emission pattern together with agentive verbs as unergative and several verbs of change of state or position, as seen in that source, pattern with verbs of existence and appearance as unaccusative verbs.

International literature mentions several tests and methods of determining the unaccusative and unergative nature of verbs. Some of these tests are semantic; others are syntactic. This dissertation assumes a semantic view for diagnosing the distinction between the two types of intransitive verbs, but some examples about syntactic behavior of these two classes will be also provided. Basically, it is plausible that agentive intransitive verbs where internal causation finds expression cannot be unaccusative; therefore, they should not display aspectual delimitedness by Tenny's predictions. Those are the cases I will address in the further sections.

Not all diagnostics that are valid for testing the unaccusative or unergative nature of predicates in the well-studied English or other languages such as Italian or Dutch are applicable to Estonian. Also, perhaps the nature of the phenomena that the Estonian tests are sensitive to is different from what has been understood under unaccusativity. In any case, I wish to point out that there are diagnostics that show that the Estonian intransitive verbs are not a homogeneous class either syntactically or semantically, and there is a correlation

between those verbs' semantic and syntactic properties. One test that is suitable in many languages is the occurrence with passive participles: if a verb can have a passive participle, it is unaccusative, if not—unergative. For unclear reasons, this test does not yield a pattern that is similar to the better described languages. Also, there are no two different auxiliaries or any comparable construction to the English *his way*-construction (see Levin and Rappaport (1995) and Zaenen (1993) or Bresnan and Zaenen (1990) for a more detailed account of the tests). The following examples show that the distinction between the two classes has syntactic characteristics. The two types of intransitive verbs appear differently in resultative constructions. The test of resultative construction assumes the validity of the Direct Object Restriction (Simpson 1978). The Direct Object Restriction refers to the inability of any verb to have more than one direct object, of which the resultative phrase can be predicated. This direct object can be overt or underlying; the latter is the case in the analyses in terms of unaccusative sentences. The idea of the test is that if a sentence has one (underlying) object, then no other object can be added. For instance, passive (or impersonal) sentences have an internal argument, an underlying object, and in a test, they do not allow the addition of any more objects. As an example, compare (7) without an object and (8) with a fake object.

(7)
Leib   lõigati   viiludeks.
bread   was.cut   slices.transl
'The bread was cut into slices.'
(8)
*Leib lõigati   end/teda   viiludeks.
bread was.cut   self/it.part   slices.transl
('The bread was cut itself/it into slices.')

The unaccusative type intransitive verbs are similar to passives (impersonals) and they are predicted to behave similarly, as can be demonstrated in (9) and (10).

(9)
Raamat   kukkus   laua   alla.
book.nom   fall.3.sg.past   table.gen   under-directional
'The book fell under the table.'
(10)
*Raamat   kukkus   end   laua   alla.
book.nom   fall.3.sg.past   self   table.gen   under-directional
('The book fell itself under the table.')

The verb *kukkuma* 'fall' is considered a typical unaccusative verb; the verb *töötama* 'work', for instance, is considered a typical unergative verb, and verbs such as *köhima* 'cough' have variant behavior across languages. Unergative intransitives, on the other hand, are seen to be able to assign object case to the phrase in the object position. They can have a fake reflexive in resultative constructions. In those constructions, the resultative phrase is predicated of the

fake reflexive, as illustrated in (11). The sentence shows that this test separates verbs that pattern together with agentive verbs. Here the verb has no (volitional) agent argument; the argument is the emitter of the sound of coughing.

(11)
Tudeng   köhis   end   hingetuks.
student.nom   cough.3.sg.past   self   breathless.transl
'The student coughed himself breathless; the student coughed until he was short of breath.'

The resultative phrase cannot be predicated of the subject of unergatives (12) and (13).
(12)
*Tudeng   köhis   hingetuks.
student.nom   cough.3.sg.past   breathless.transl
('The student coughed breathless.')
(13)
*Tudeng   töötas   hingetuks.
student.nom   work.3.sg.past breathless.transl
('The student worked breathless.')

Not only fake reflexives, but also cognate objects can occur with the resultative phrase and the unergative type verbs (14).

(14)
Tudeng   köhis   oma   hääle   kähedaks.
student.nom   cough.3.sg.past   own   voice.gen   hoarse
'A student coughed his voice hoarse; the student coughed until his voice was hoarse.'

The resultative phrase is predicated of the surface subject with unaccusative verbs; this is demonstrated by example (15).

(15)
Tuhanded   inimesed   külmusid   jääpurikaks.
thousand.nompl   people.nompl freeze.3plpast icicle.transl
'Thousands of people froze (got frozen) into icicles.'

The insertion of a cognate object is not possible with unaccusatives, as in sentence (16).

(16)
*Tuhanded   inimesed   külmusid   oma käed   jääpurikaks.
thousand.nompl   people.nompl freeze.3plpast own-hand.3plnom   icicle.transl
('Thousands of people got-frozen their hands into icicles.')

A scrutiny of corpus data shows that one can find counterexamples with these predicates. The following short message (17) containing a fake object and the verb *kukkuma* 'fall' is from the daily *Postimees* (internet version, http:// www.postimees.ee, May 14, 2003).

(17)
Mees   kukkus   9. korruse   aknast   end   surnuks.
man.nom   fall.3.sg.past   9th floor.gen   window.elat   self.part_dead.transl
'A man fell out from the window of the 9th floor and died.'

Here, the sentence must be interpreted with the internal causer. With an interpretation of the sentence with an external causer (i.e., somebody else caused the man's falling), the fake

reflexive would not be grammatical. Also, it is not impossible to have examples with body part fake objects as the following in Estonian (18).

(18)
Laps   *kukkus*   *oma põlve*   *katki.*
child.nom   fall.3.sg.past   his knee.gen   wounded.
'The child fell and wounded his knee.'

Here it might be useful to examine the causers of the events that are described in the sentences with the verb *kukkuma* 'fall'. In these cases, the causers of the event, the ones "responsible" for what has happened, are the man and the child (thus, they are internal, inner causers), whereas the book can never be the causer of its falling, there needs to be another, outer causer. The intentional or volitional nature of the causers here does not influence the behavior as it does not influence the behavior in the case of the—also unergative—emission verbs. In any case, these examples show that there is a clear difference between two types of Estonian intransitive verbs with regard to their behavior in resultative constructions. Therefore, this syntactic environment will further be employed to find out whether the subjects under discussion are underlying objects in Tenny's theory.

The organization of the following argumentation thus reflects the distinction between the clearly unaccusative intransitive sentences without oblique arguments (2.2.1) and other intransitive sentences with oblique arguments (2.2.2). Whether the intransitive sentences with obliques are unergative is a contentious issue that will be put aside for the time being. While unaccusative sentences do not necessarily cause theory-internal problems for Tenny, some other intransitive, oblique-argument sentences certainly do so. This consideration has motivated the division of the presentation of the following arguments along those lines in two subsections.

4.4.2.1. Unaccusative intransitive sentences

There are unaccusative sentences, a subtype of sentences lacking an overt direct object, that are compatible with Tenny's tests of delimitedness. The verb *sulama* 'melt' is unaccusative; it can have an underlying object, since no object can be inserted into the sentence, and the resultative phrase cannot be predicated of any surface object. This fact is demonstrated by the resultative construction test in (19) and the impossibility of the fake object (20):

(19)
Jää   sulas   veeks.
ice.nom   melt.3.sg.past water.transl
'Ice melted into water.'
(20)
*Jää   sulas   oma   kihid/end   veeks.
ice.nom   melt. 3.sg.past its layer.pl.nom/itself   water.transl
('The ice melted its layers/itself into water.')

The following sentence (21) shows that the sentence is compatible with the time frame adverbial *nädalaga* 'in a week', and, therefore, it describes a delimited event:

(21)
Jää   sulas   ühe   nädalaga.
ice.nom   melt.3.sg.past one.gen   week.comit
'The ice melted in a week.'

This sentence is unaccusative; it has an underlying object in terms Tenny's approach. Its argument is a measuring argument, and the sentence describes a delimited event. Since the behavior of this sentence and predicate type correctly follows from Tenny's predictions, the given verb class will not be further studied in terms of delimitedness of events they refer to and only those verbs are studied which are agentive or which have oblique complements.

4.3.2.2. Intransitive sentences with oblique complements

According to Tenny's mapping account, sentences without any (underlying) objects cannot express delimitedness and measuring out. This section shows that they can. More specifically, there are examples of Estonian intransitive sentences that cannot be classified as unaccusative by the resultative diagnostics that are identified above. However, they can express delimitedness and measuring out, but there are difficulties in establishing the exact measuring argument. These sentences are based on verbs such as *loobuma* 'give up, decline', *tutvuma* 'become acquainted with something or someone', *süvenema* 'concentrate on something', *pühenduma* 'become devoted to something'. These verbs are special, on the one hand, since they appear only in intransitive sentences as the unaccusative verbs do. They cannot be combined syntactically with a fake or a cognate object. However, what speaks against considering these verbs as unaccusative is the fact that the resultative phrase cannot be predicated of the surface subject either. Also, their subjects are not uniformly themes, which would be typical of unaccusative subjects. Many of the verbs that appear in sentences below resemble unergatives in that their subjects are agentive and volitional.

Group 1:Verbs of mental effort (e.g., *pühenduma* 'become devoted to something, devote oneself to something', *süvenema, süüvima, keskenduma, kontsentreeruma* 'concentrate on', *veenduma* 'get convinced, make sure', *sukelduma* 'plunge into, dive into, dig oneself into, become concentarted, devoted, submerge, get immersed', (*endasse*) *sulguma* '(start to) show signs of reticence, reserve', *avanema* (maailmale) 'open up (for the world)', *spetsialiseeruma* 'become specialized, a specialist on', *kapselduma* 'incapsulate'.

These intransitive verbs of mental effort refer to delimited events; alternatively, they specify a (result) state. Sentences with these verbs are compatible with "deliberately"; they can be agentive. As an example, the sentence with the intransitive verb *pühenduma* 'become devoted to something, devote oneself to something' refers to a delimited and completed event as seen in the test with the short-duration time frame and completion adverbials in (22):

(22)
| *Mari* | *pühendus* | *paugupealt/täielikult* | *tööle.* |
| M.nom | devote.3.sg.past | immediately/completely | work.all |

'Mary devoted herself (immediately/completely) to her work.'

This shows that verbs of this type can refer to a delimited completed event. As an alternative it is possible that this verb refers to a state, and this state can be bounded externally, that is, independently of the lexical meaning of the verb (the bounded state is lasting in this example for an hour). The following piece of evidence shows that the verb is or allows to be interpreted as agentive (23) and the durative adverbial shows that the verb can refer to a non-delimited event. However, the agentive interpretation is not the prominent one, the experiencer one is. It is possible to construct the situation as a deliberate effort to direct the process:

(23)
| *Mari* | *pühendus* | *meelega* | (*tund aega*) | *tööle.* |
| M.nom | devote.3.sg.past | deliberately | one.nom hour.part | work.allat |

'Mary devoted herself to her work on purpose for an hour.'

Group 2: agentive verbs with usually comitative complements: two-participant (ritual, cooperative) changes, e.g., *tutvuma* 'get acquainted with someone or something', *abielluma* 'get married/marry', *kihluma* 'get engaged', *ühinema* 'join, unite with', *leppima* 'become reconciled, make up with someone'; without comitative, *riietuma* (this verb has an activity reading) 'get dressed', *relvastuma* 'get armed', *desarmeeruma* 'disarm, get disarmed', *koopereeruma* (this verb has a basic activity reading) 'cooperate with', *lahutama* 'get divorced', etc.

Verbs of this intransitive group refer to delimited events (24). The verb *tutvuma* 'get acquainted with someone or something', contrary to some examples of the previous verb group, cannot have the (result) state meaning. The verb can refer to delimited but not completed events as seen in (24).

(24)
Mari   tutvus   Katiga   paugupealt/# täielikult
M.nom   get acquainted.3.sg.past   Kate.comit   immediately/completely
'Mari immediately got/became acquainted with Kati in a moment/#completely.'

The verb can refer to non-delimited events if the sentence is understood agentively, as in (25) and (26), but then the sentences are infelicitous:

(25)
??Mari   tutvus   Katiga   meelega   aeglaselt.
M.nom   get acquainted.3.sg.past   Kate.comit   deliberately   slowly
'Mari was deliberately getting acquainted with, was making friends with Kati slowly.'

(26)
??Mari   tutvus   Katiga   meelega   tund aega
M.nom   get acquainted.3.sg.past   Kate.comit   deliberately   for an hour
'Mari was deliberately getting acquainted with Kati for an hour.'

Verbs of this group show variant behavior as to their aspectual content. The verb *tutvuma* 'get acquainted with someone or something' behaves differently depending on whether the comitative complement's referent is a person or inanimate. The verb can be combined with time frame (rather long than short duration) (27), completion (28), and durative adverbials (29) more felicitously if the referent of the comitative phrase is inanimate, the material, as the following examples show. Example (30) shows the property of agentivity.

(27)
Mari   tutvus   materjaliga   ??paugupealt/kahe tunniga
M.nom   get acquainted.3.sg.past   material.comit immediately/in two hours
'Mary immediately became/got acquainted with the material.'
'Mary became/got acquainted with the material immediately/in two hours.'

(28)
Mari   tutvus   materjaliga   täielikult
M.nom   get acquainted.3.sg.past   material.comit completely
'Mary got completely acquainted with the material.'

(29)
Mari   tutvus   materjaliga   tund aega
M.nom   get acquainted.3.sg.past   material.comit   for an hour
'Mary was getting acquainted with the material for an hour.'

(30)
Mari   tutvus   meelega   materjaliga
 M.nom   get acquainted.3.sg.past   deliberately   material.comit
'Mary became/got (deliberately) acquainted with the material.'

The progression through the material may reflect the progression through the event. However, the material is not a direct object, although the end of the event typically coincides with the moment when the material is totally processed by Mary. However, changes in Mary's mental states may also make up the measuring scale, but then it is unclear what provides the delimitedness in these events.

Group 3: verbs of decision (*loobuma* 'decline, give up', *kapituleeruma* 'give up', *resigneeruma* 'resign, turn inwards', consent, *nõustuma* 'agree', *soostuma* 'assent, consent, acquiesce', *keelduma* 'decline from, not accept', *leppima* 'acquiesce', *alluma, kuuletuma* 'listen to, obey, be subordinated', *piirduma* 'confine oneself to, limit oneself to', etc).

This group contains mostly those verbs that can refer to an event that may be described as 'tough achievements'. The verb *loobuma* 'decline' describes a delimited event (31).

(31)

Haigekassa nõukogu   loobus   otsustamisest ühe hetkega.
the Council of Public Health give-up.3.sg.past   deciding.elat   in a moment
'The Council of Public Health immediately declined to decide; the Council declined to make the decision.'

This agentive sentence (32) is compatible with completive adverbs. On the other hand, example (33) shows that the completion cannot extend over temporal spans, which suggests that the verb is an achievement and not an accomplishment and suggests that completion of a change and reference to temporal spans are lexically distinct.

(32)
Haigekassa   nõukogu   loobus   otsustamisest täielikult.
the Council of Public Health   give-up.3.sg.past   deciding.elat   completely
'The Council of Public Health completely declined to decide.'

(33)
#Haigekassa   nõukogu   loobus   tund aega
'The Council of Public Health   give-up.3.sg.past   for an hour

otsustamisest.
deciding.elat
('For an hour, the Council of Public Health declined to decide; the Council declined to make the decision.')

These verbs are agenitve (34).
(34)
Haigekassa   nõukogu   loobus   meelega
the Council of Public Health   give-up.3.sg.past   deliberately

otsustamisest.
deciding.elat
('The Council of Public Health declined to decide on purpose; the Council declined on purpose to make the decision.')

If any of these objectless verbs can be seen as unaccusative, then they are predicted to have a measuring out subject. If not, then there is a problem in the theory. Since the essence of the

phenomenon of unaccusativity has not been adequately studied for Estonian, this dissertation will leave this topic to be studied in the future and refer the reader to some preliminary discussions in Tamm (1998a) and (1998b). The conclusions are drawn considering that none of the analyzed verbs are included in lists of unaccusative verbs, and these verbs do not allow either an additional object in a sentence or a resultative phrase predicated of the subject. These verbs can be considered unaccusative with the stipulation that intransitive change of state verbs be unaccusative. However, then there arises a contradiction with the simultaneous agenthood of the subjects, which characterizes unergativity. This subsection has shown that there are many intransitive predicates that nevertheless refer to delimited events. Volitionality or agentivity is seen to correspond to the possible presence of durative, activity readings. Otherwise, the studied verb frames with oblique complements have achievement readings.

There is one more facet of the correlation between reference to delimited events and objects in Estonian. More specifically, reference to achievements occurs more frequently *without* objects than in the case of accomplishments; therefore, there must be assumed a difference between mapping them. Some schoolbook examples of achievement verbs, which occur with an object in English such as 'reach the top' (35), do not have object complements in Estonian, but obliques (illative, terminative, allative) instead:

(35)
Mari   jõudis   tippu/tipuni/tipule.
M.nom   reach.3.sg.past   top.illat/termin/allat
'Mary reached the top.'

Therefore, the measuring out and the ability to refer to delimited events must be related to different causes than to the existence of concrete measuring arguments and the measuring aspectual roles that the verbs assign to their arguments. The tight link between the verb's ability to refer to delimited events and the existence of an internal argument cannot be established.

4.3.3 Some verbs that express delimited events have no durative readings

Volitionality does not always license the durative reading with some verbs that in temporal adverbial tests may be seen as achievement verbs (Section 3.2), such as *loobuma* 'give up, decline', *nõustuma* 'agree'. Despite their reference to completed events, these verbs are incompatible with durative adverbials. Perhaps another phenomenon with these achievement

verbs with oblique complements involves combining them with the particle *ära*. They tend not to combine with the verbal particle *ära* in sentences, illustrated by examples (36) and (37).

(36)
#Haigekassa nõukogu loobus otsustamisest ära.
the Council of Public Health give-up.3.sg.past deciding.elat *ära*
('The Council of Public Health finished declining to decide; the Council finished its task of declining to make the decision.')

(37)
#Mees nõustus sõbraga ära.
Man.nom agree.3.sg.past friend.comit *ära*
('The man finished agreeing, did the agreeing, or agreed with his friend')

Their punctual or momentaneous nature cannot be the reason for not combining with the particle, since semelfactives such as *raksa(ta)ma* 'crack' or *vilgatama* 'flash' can. In Chapter 5 and 7, I discuss this topic in more detail. In short, from this study, there emerged two more facts.

1) Some but not other agentive achievement verbs allow for shifting to durative, *tutvuma* 'get acquainted with' can, as opposed to *nõustuma* '(non-stative) agree', *loobuma* 'give up' that cannot.

2) Both groups are compatible with completive adverbials, *tutvuma* 'get acquainted with' and *loobuma* 'give up'; but in some readings, *tutvuma* 'get acquainted with' is not.

3) Furthermore, these achievements combine differently with particles, as if depending on whether they can have a durative reading: *tutvuma* 'get acquainted with' combines with a particle as opposed to *nõustuma* '(non-stative) agree', *loobuma* 'give up', which do not. The combinations with particles will be studied further in Chapter 5.

4.4. Summary to Chapter 4

In sum, measuring out must be related to different notions than the measuring arguments and the measuring aspectual roles that the verbs assign to their arguments. Measuring out and the progress along measuring argument that provides a limit must, therefore, conceptually be separated. The tight link between the verb's ability to refer to delimited events and the existence of an internal argument cannot be established; it is a tendency. Therefore, more studies are necessary in this area. Verbs seem to allow for several types of delimitedness. One type is related to a notion of change for which temporal progress is irrelevant, and this notion typically corresponds to the appearance of objects in Estonian; whether the objects provide the scale that is related to the measuring out of the event or not (e.g., in *give the book to Mary* and *push the cart to the store*). An important insight is that intransitive verbs fall into different

aspectual groups that can be characterized by the durative, time frame, rate, and completion adverbs. The lexical boundedness of intransitive predicates is further discussed in Tamm (to appear, b) in connection with their combinations with particles. This dissertation proceeds with transitive predicates. The particle phenomena clarify some questions about measuring out and delimitedness and are the topic of the following section.

Chapter 5. Perfective particles

5.1. Introduction

This chapter discusses the Estonian aspectual particles and their relation to arguments. This chapter aims at finding out, on the one hand, what are the factors that allow some and not other verbs to combine with or to be compatible with aspectual particles. On the other hand, I present two different types of particles that are called the completive (CP) and the bounding particle (BP). I study their relation to aspectual classes of verbs and the thematic roles of the arguments of the verbs they combine with. In most cases, the particle resembles a resultative secondary predicate. In others, it has an aspectual bounding character. The latter type falls out of the scope of Tenny's theory, which is taken as a reference point here, since Tenny (1994) is mainly concerned with the VP, the verb and its arguments. This chapter shows that it is problematic to think of all Estonian verbal particles in terms of Tenny (1994:36), for whom verb particles do the following. They convert a non-measuring internal argument to a measuring argument, or they enforce a delimited, measuring out reading if the verb is ambiguous between a measuring and non-measuring interpretation.[45] I draw the reader's attention to the emergence of what is termed here the *bounding particle* (BP), which does not have such effect. I show that some uses of the particle *ära,* illustrated in example (1), are significantly different from the well-established uses of the same perfective particle (presented in Section 5.2.1) and other perfective particles, which resemble the particles discussed by Tenny.

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[45] Tenny does not give an exact account of the particle and its relation to the roles, but she states that "[p]articles must occur with the MEASURE role" (Tenny 1994:150). I list the quotations that illustrate her views on the subject here. "The resultative prepositional phrase, noun phrase or adjective describes the effect on the object, of the action described by the verb; or the endstate of the object in the event described by the verb. Like verb particles, resultatives require a MEASURE aspectual role" (Tenny 1994:151). "Resultatives, like verb particles, serve the semantic function of introducing a temporal endpoint and measuring-out to the event. Particles do this by indicating the event 'travels through' the object completely (e.g. *eat the apple up*) and resultatives by indicating the endpoint is achieved when the object is in a certain state (e.g., *paint the barn red*). Particles favor incremental themes, while resultatives favor changes of state" (Tenny 1994:152). "Verb particle constructions and resultative secondary predicates are very similar syntactic constructions. In each case there is some syntactic element that may appear before or after a direct object. This element, the secondary predicate, has the semantic function of requiring the presence of the MEASURE aspectual role" (Tenny 1994:156).

(1)
Mind   kutsuti   reklaamipäevale   klouni   mängima.
I.part   invite.pass.past   advertising_day.allat clown.part   play.mainf

*Mängisin   klouni   **ära**   ja   sain   sada krooni.*
play1.sg.past clown.gen   ptcl   and   get.1.sg.past a hundred.nom kroon.part
'I was invited to play a clown on the advertising day. So I played the clown and got 100 kroons.' (Reporting data on colloquial usage, Metslang 2001[46])

This use of the semantically bleached separable verbal particle *ära* has the following characteristics:

1. It occurs only in spoken language.

2. It occurs typically in embedded, volitional contexts describing a succession of planned or foreseen events; it occurs only in sentences where the details of the participants of the event and the identity of the event is predefined.

3. It is not a subcategorized argument of a verb.

4. The verbs with which they co-occur in sentences belong to all Vendler aspectual classes, the thematic role of their internal arguments is not restricted, and the internal argument does not measure out the event.

The Chapter starts with an introduction of a classification for particles (Section 5.2). The section on the data about the two uses of the particle is Section 5.3. The rest of Chapter 5 presents the various differences between the particles in three parts: the aspectual nature of the verb-particle combinations, including the interpretation of the result (Section 5.4), combinability with verbs (Section 5.5), syntactic differences (Section 5.6). Section 5.7 is the conclusion.

5.2. Classifications for particles

Metslang (2001) describes the grammaticalization history of the particle *ära* as evolving from a directional adverbial to a purely perfective particle.[47] Schematically, Metslang's typology of the particle *ära* according to its stage in grammaticalization has the division as in Table 5.1.

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[46] I have reglossed the examples to unify glosses throughout the paper. The glosses will sometimes be omitted, for instance, when longer contexts are presented, or the translation is unambiguous.

[47] Kont (1963: 91-97) contains information about the particles. Rätsep's dissertation and book (1978) are also a good source for some particles. Tamm (to appear, b) discusses the status of *ära* in the light of the particle-adverb distinction.

Table 5.1. Metslang's division in stages of grammaticalization: the meanings of the particle *ära*

Stage 1	Stage 2	Stage 3
Directional deictic	**Perfective+deictic**	**Purely perfective**
ära saatma 'see somebody off'	*ära tapma* 'kill', *ära kaotama* 'lose'	*ära sünnitama* 'give birth', *ära suudlema* 'kiss', *ära sooritama* 'accomplish', *ära korraldama* 'organize', *ära anastama* 'occupy'

I will show that the distinction between stage 2 and stage 3 particles can be drawn more clearly. The division in the stage 3 data on particles reflects the fact that stage 3 particle uses may house both *completive* (CP) and *not completive* uses, where completiveness is understood as the completion of the event with regard to encompassing[48] an argument totally. Metslang's stage 2 particles are all completive. Therefore, one group of instances of stage 3 particles differs from another group of instances of the same stage 3 significantly more than from the instances of stage 2 particles. My point is that although Metslang defined the classes as being combinations of lexical items with the particle, some of her examples (the type 4 ones) are *free,* not argument structurally restricted combinations—they do not require a direct internal argument. I divide the perfective uses of the particle *ära* into two different uses: *completive* and *bounding*. These are referred to further as CP, shorthand for *completive particle,* and BP, shorthand for *bounding particle.* Table 5.2 below depicts my classification of Estonian perfective particles according to their aspectual nature and their relation to the verb's arguments.

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[48] Encompassing is taken here as the total or complete traversal of the argument, as in *read a book,* creation or destruction of it, or a radical change of state in it; encompassing is a complete change involving one of the argument's properties.

Table 5.2. Estonian perfective particles

DIRECTIONAL *ära, minema, tulema,* 'away', *etc.*	COMPLETIVE (*ära* 'completed', *maha* 'down', *läbi* 'through', *välja* 'out', *üles* 'up') (see Hasselblatt 1990)	BOUNDING (*ära*)
Denotes the completion of a path, e.g., to "away".	Denotes the result or completion of the activity or process directed to an argument	Denotes the reaching of a predefined goal, situation
ära saatma 'see somebody off', *minema minema* 'go away', *tulema tulema* 'come away', *välja minema* 'go out', *ära jooksma* 'run away'.	*ära tapma* 'kill', *ära surema* 'die', *ära kaduma* 'disappear', *ära kaotama* 'lose', *läbi lugema* 'read through', *ära korraldama* 'organize, get done', *ära anastama* 'occupy', *maha müüma* 'sell out', *maha rahunema* 'calm down', *välja kannatama* 'survive, tolerate', *ära puhastama* 'clean', *valmis küpsetama* 'bake'.	*ära + mängima* 'do, finish the playing', *ära + jooksma* 'do, finish the running', *ära + tegelema* 'do, finish the activity' *ära + suudlema* 'do, finish the kissing', *ära + tutvuma* 'do, finish the getting acquainted with'

This division helps, on the one hand, to clearly distinguish uses that are close to what Metslang terms purely perfective (I call these uses bounding) from completive perfective uses. On the other hand, non-deictic and non-directional particle-verb combinations such as *(tuba) ära koristama* 'tidy, clean (up) the room', which remain somewhat vaguely placed between purely perfective and directional deictic in the division of Metslang's grammaticalization stages, are better integrated in the classification as the completive uses of the particle. There is no disappearance of the room in the course of the cleaning activity but the particle denotes the completion of the room's changes of state from dirty to clean. On the other hand, this example differs intuitively from the ones associated in Metslang with the purely perfective meaning. The following three points briefly compare the particle types.

1. *DIRECTIONAL* (deictic) *ära* denotes the completion of a path to "away".

The closest Hungarian equivalent is the verbal prefix *el-* (*elgurult a labda* 'the ball rolled away', *eltette a könyvet* 'he put the book away'). The closest English equivalent for this particle is *away.* Some examples follow: *ära veere(ta)ma* '(caused to) roll away', *ära panema* 'put away'. The terminus denoted by the particle pertains to the completion of the path to a terminus, endpoint or goal. The terminus, endpoint or goal is definable as a place different from the deictic centre. Verbs that combine with the directional *ära* have an implicit path argument that is not obligatorily realized as an overt syntactic argument. This dissertation is not concerned with the directional and deictic meanings of the particle *ära.*

2. *COMPLETIVE ära* denotes the result or completion of the activity or process directed to a theme, patient or experiencer argument (cf. É. Kiss 2004). The closest Hungarian equivalent is *meg- (meghalt a szomszéd* 'the neighbor died', *megolvasztotta a jeget* 'he melted the ice', *el-* for verbs of disappearance *elhunyt* 'passed away'). Examples are also *raiskas ära* 'misspent', *tappis ära* 'killed', *sulas ära* 'melted'. Further examples of verbs that typically

combine with CP are *lugema* 'read', *sööma* 'eat', *surema* 'die', and *armuma* 'fall in love,' *sulatama* 'cause to melt', *koristama* 'clean (up) the room'. The terminus denoted by the particle pertains to the completion of a change of state. Typically, the terminus denoted by the particle pertains to the completion of an activity or process that encompasses the whole extent of the theme, patient or experiencer argument referent in its properies. The goal is definable as a state that is an opposite, or in any case a significantly different state from the previous state. Verbs that combine with the CP *ära* must have a theme or patient argument that is obligatorily realized in overt syntax as an object or a subject. There are many subtypes of the CP, not discussed in detail here.

3.   *BOUNDING ära* denotes the achievement of the endpoint of an intended, planned, scheduled, or foreseen event. It occurs in transitive and intransitive sentences. Hungarian and English have no close equivalent, perhaps the Hungarian *meg-* (*megebédelt* 'had his dinner'*)*, some Aktionsart-related uses of *ki- (kialussza, kijátssza magát* 'sleeps, plays his share, as much as needed', cf. Kiefer (s.d.) or Kiefer and Honti (2003) on (Finno-Ugric) Aktionsarts) resemble the Estonian bounding *ära*. The *túl*-prefixation is closer to the BP *ära* in their nature of being unrelated to the progress along the object argument, as in *X túlélte Y-t* 'X survived Y'. There are common features with the Hungarian bounder *egyet* (Piñón 2000). From English, the *out*-prefixation is perhaps closest to the BP *ära*. Examples of sentences with the bounding particle are *mängis ära* ('did the intended, necessary playing, got done with the playing'), *ta suudles tüdruku ära* ('s/he did the planned kissing, was done with the kissing'). Further examples of attested verbs that, perhaps less typically, can occur with the BP are *jooksma* 'run', *tegelema* 'be busy with', *tutvuma* '(make efforts to) get acquainted with', *ehitama* 'build', and *küpsetama* 'bake'. The verbs that occur with the BP *ära* frequently have an agent argument that is realized in overt syntax or not (e.g., in the impersonal, imperative sentences).

The relevant distinction between these particle types as seen in this article is based on the lexical semantics of the base verbs, more specifically, on the involvement of argument structure of the verbs in combinations with these particles. The completive particle adds the meaning element of the completion of encompassing an argument property to the full extent, as described by the verb. The bounding particle denotes the reaching of an independent planned, scheduled or intended endpoint of the activity, not necessarily related to any completion of changes or progess related to an argument. The bounding particle occurs in sentences where the planning involves the activity itself as described by the verb as well as the referents of the arguments.

5.3. Introducing more data: bounding vs. completive particles

5.3.1. The completive particle

In this subsection I present some typical examples of one of the Estonian CPs, the CP *ära*. Typically, consumption verbs such as *sööma* 'eat' (2) combine with the particle *ära* in its completive meaning type.

(2)
Laps	*sõi*	*kukli*	***ära***.
child.nom	eat.3spast	roll.gen	*ära*

 'The/a child ate the/a roll up.'

As the result of the eating activity as described in this sentence (2), the roll has necessarily disappeared, whatever the context.

(3)
Naaber	*suri*	***ära.***
neighbor	die.3.sg.past	*ära*

'The neighbor died.'

As the result of the event as described in this sentence (3), the neighbor is dead, whatever the context.

(4)
Ta	*tappis*	*oma*	*kaaslase*	***ära***.
s/he	kill.3.sg.past	own	companion	*ära*

'S/He killed his/her companion.'

As the result of the deliberately or accidentally caused event as described in this sentence (4), the companion is dead.

(5)
Mari	*armus*	*Jürisse*	***ära.***
M.nom	fall-in-love.3.sg.past	Jüri.illat	*ära*

'Mari fell in love with Jüri.'

As the result of the event as described in this sentence (5), Mari is in love with Jüri. Data on particle-verb combinations such as described here are found in many sources, such as the Grammar of the Estonian Standard Language (1993, henceforth referred to as the *EKG II)*, Hasselblatt (1990), Kont (1963), or Rätsep (1978). The typical, earlier relatively well-described particle uses are all *completive* uses of the particle (for the most extensive study, see Hasselblatt 1990). Metslang (2001) serves as a unique source, since it contains a couple of earlier recorded cases of which I show that they cannot be analyzed as completive particle uses.

5.3.2. The bounding particle

In this subsection I present an introduction to the BP *ära*. The example sentences do not typically occur in written language.[49] The following example of the BP, presented in (6), is a combination with the activity verb of manner of motion *jooksma* 'run'.

(6)
Iga	*päev*	*käis*	*Mari*	*jooksmas,*
every	day	go.3.sg.past	M.(nom)	run.masinf

pärast	*jooksmist*	*läks*	*bussiga*	*ujuma.*
after	running.part	go.3.sg.past	bus.comit	swim.ma.inf

'Every day, Mary went running, after running she took the bus and went swimming.'

Täna	*juhtus*	*aga*	*nii.*
today	happen.3.sg.past	but	so

'But what happened today was...'

Mari	*jooksis*	***ära,***
M.nom	run.3.sg.past	ära

'Mari did the running…'

ent kuna millegipärast   busse ei käinud,
but since for some reason bus.partpl neg go.act.ptcpl
siis ei saanud ta seejärel ujuma minna.
then neg can.act.ptcpl swim.mainf go.dainf

'…but as the buses did not run/work for some reason, she could not go swimming.'

Here, the sentence (6) conveys that Mari spent (running) the span of time or distance she used to run every morning and then failed to start another intended activity that belongs to the conventional sequence of activities performed by her daily. This example resembles an example of Dowty (1979:61). Hay, Kennedy, and Levin (1999:137) discuss an observation of Dowty that "*John swam* can have a telic interpretation in a context where John is known to swim a set distance every day, as well as the more usual atelic information". The next example (7) contains an intransitive activity verb *tegelema* 'be busy with something, to deal with, to be occupied with, to work on something', a verb with no built-in endpoint or culmination. This use of the particle occurred in a dialogue (May 2003).

(7)
Kas	*lähme*	*õue?*
Q.	go.1.pl	out

'Shall we go out?'

Ei, vaata,	*laps*	*tegeleb*	*praegu nii*	*kenasti*	*voolimisega.*
no look	child.nom.	deal.3sg	now so	nicely	modeling.comit

'No, look, the child is so well busy with modeling.'

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[49] The translations that I provide are not literal since there is no exact one and single literal translation that would convey the correct bounding meaning. Instead, I offer exact glosses but several, equally suitable, free translations that interpret the relevant meaning components and contextual conditioning of this particle type. As in (1), it is necessary for the purposes of illustration to provide examples of a possible (but note, not the *only* possible) context.

*Olgu, las ta siis tegeleb **ära** ja lähme siis.*
OK let s/he then deal.3sg *ära* and go.1pl.imp then.
'That's fine, let's go then as soon as s/he's done with his/her modeling.'

The particle does not confirm or specify any natural endpoint as entailed or implicated by the verb's meaning. The meaning of the verb *tegelema* 'be busy with something, to deal with, to be occupied with, to work on something' does not contain any natural endpoint. Without the contribution of the particle, the activity as described by this verb would be described as going on endlessly. The sentence in (7) conveys that the endpoint or boundary of the activity co-occurs with the moment when the child decides s/he's done with her modeling and at a certain moment, stops the activity. Compared to the previous example (6) with running, here a set amount of being busy cannot be understood to be the basis of the special conventional measure type of telicity described by Dowty (1979) and Hay, Kennedy, and Levin (1999).

Example (8) contains a verb with a built-in endpoint, *tutvuma* 'get acquainted with'.

(8)
*Mari tutvus materjaliga/(?)Katiga **ära** ja jalutas minema.*
M.nom get-acquainted material/K.comit *ära* and walked away.
'Mari accomplished her task, her task being getting acquainted with the material/Kati and then walked away; Mari did the getting acquainted with the material/Kate and then walked away.'

This sentence describes that Mari had to or intended to be engaged in the activity of getting acquainted with the material or Kati and then walked away.[50] The activity is more likely than not scheduled in between other activities or tasks—Mari might be pressed for time. The sentence can be interpreted as having the result, the natural endpoint as described by the verb, where Mari is acquainted with Kati or the material.

Although the BP generally co-occurs with intransitive verbs, it is not impossible with transitive verbs either. Changing from intransitives to transitives, I consider first simple activity verbs such as *suudlema* 'kiss', an example discussed in Metslang (2001). Activity verbs appear with the BP as illustrated in (9).

(9)
*Ta suudles tüdruku **ära**.*
s/he kiss.3sgpst girl.gen *ära*
'S/he did the kissing of a girl.'

Metslang (2001) writes, "[t]he sentence *Ma suudlesin ta ära* (literally 'I kissed her off') could be said if one has made a bet to kiss the girl". The result, attaining what is required by the conditions of the bet, is introduced into the sentence by the particle.

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[50] The sentence with "material" is slightly more acceptable than that with "Kate", perhaps due to the polysemy of the verb.

My intuition considers the particle *ära* (as opposed to the lexically determined CP combinations *valmis* 'ready' or *läbi* 'through') as an instance of the bounding particle also when it appears with transitive, creation verbs such as *küpsetama* 'bake' (10), or with incremental theme verbs such as *lugema* 'read' (11).[51]

(10)
Ta	*küpsetas*	*koogi*	***ära***	*ja ...*
s/he	bake.3sgpst	cake.gen	*ära*	and

'S/He did the baking of the cake, s/he did bake the cake, s/he finished baking a cake and ...'

In this sentence, the agent has previously decided to bake a cake, perhaps as a task. Having accomplished the cake baking, s/he goes on with another activity, task etc. Again, what is primarily described is that the activity has reached its intended end, not a resultant state of the cake. This can be easily imagined as a part of a cooking-lesson at school, where a succession of tasks must be performed, and marks are given. The following (11) presents a similar example, with the verb *lugema* 'read'.

(11)
Ta	*luges*	*raamatu*	***ära***	*ja...*
s/he	read.3.sg.past	book.gen	*ära*	and

'S/He did the reading of the book, s/he did read the book through, s/he finished reading the book and...'

In this sentence, again, the agent has previously decided to read (some parts of) a given book, do some reading of the book. Having accomplished that, s/he can go on with another activity. As the result of what is described in sentence (11), s/he has read as much from the book as necessary, perhaps the whole book, or the necessary parts of it, or a certain necessary span of time is spent reading.

In sum, on the basis of the difference in the interpretation of the uses of the verbal particle *ära*, there is evidence that the uses of the verbal particle *ära* can be split into two types: the *completive* and *bounding* grammaticalization types. Further evidence is subdivided

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[51] However, there is variation in judgments concerning the details about the verbs and contexts where the BP can occur. Even if many Estonian language speakers intuitively feel that practically all or at least many verbs combine with *ära*, a more specific "situation bounder" is somehow "more correct" and the use of *ära* is "parasitic", especially in these examples. This uncertainty and preference for more specific situation bounders might reflect, on the one hand, the distinction between lexically restricted and not lexically restricted combinations with the particles and, on the other hand, a distinction between more prototypical situations described using these verbs as opposed to less typical ones. The combinations with "more specific situation bounders" are lexical class-based and those with the "more general" *ära* are not lexical class-based. For instance, verbs of creation form lexically restricted compositions with particles or adverbials of completion. This means that all the verbs belonging to the creation verb class and the completion adverbial *valmis* 'ready' combine in order to express the meaning of the completion of the creation. As for the distinction between more typical situations described using these verbs and less typical ones, the verbs are more typically used to express the completion of the creation and not the finishing of a scheduled task. Lexical restrictions and the typicality of situations are thus the two distinctions that may cause uncertainty in discussions of examples that follow here in (10)-(11). The data represented here reflect the acceptance of some speakers.

in three main parts: aspectual differences (Section 5.4), lexical differences (Section 5.5), and syntactic differences (Section 5.6).

5.4. The aspectual nature of the verb-particle combinations

5.4.1. Aspect of base verbs

In this subsection I show that the two different particle types tend to occur with different, but not mutually exclusive aspectual classes of verbs. While CPs combine mainly with accomplishment and achievement verbs, there are examples of BP occurring with most verbs, activity verbs being the most typical ones to appear with the BP. The following Table 5.3 presents examples of the particles' combinability with verbs.

Table 5.3. Particles and the Vendler classification

Particle/class	*Typical CP base verbs*	*Typical BP base verbs*
Achievements - durative, +dynamic, + endpoint	*surema* 'die', *tapma* 'kill'	*Some basically achievement verbs tutvuma* '(make efforts to) get acquainted with'
Accomplishments + durative, +dynamic, + endpoint	*sööma* 'eat', *looma* 'create', *sulama* 'melt'	*ehitama* 'build', *küpsetama* 'bake'
Activities + durative, +dynamic, - endpoint	*Some basically activity verbs: koristama, puhastama* 'clean', *lugema* 'read'	*mängima* 'play', *jooksma* 'run', *tegelema* 'be busy with', *suudlema* 'kiss'
States + durative, -dynamic, - endpoint	-	*Some basically statives: seisma* 'stand', *käima (kusagil)* 'go somewhere, be away'), *olema* 'be (somewhere)'

Verbs that combine with the CP are mainly verbs that have a built-in endpoint or culmination in their meaning, thus accomplishment (*looma* 'create') or achievement verbs (e.g., *surema* 'die'). The activity verbs that combine with the CP typically contain a change of state element, and the change obligatorily affects the argument in one of its properties. Such verbs are referred to in many sources as VP-telic.

In contrast to the CP, the BP primarily occurs with activity verbs such as *mängima* 'play', *jooksma* 'run', *tegelema* 'be busy with', and *suudlema* 'kiss'. The BP can appear with accomplishment verbs, such as *ehitama* 'build', and *küpsetama* 'bake'. The BP is the only particle that can occur in sentences with some achievement verbs such as *tutvuma* '(make efforts to) get acquainted with'. Occasionally, the state verb *olema* 'be (somewhere)' occurs with the BP.

The BP clearly occurs only in those transitive sentences where the object has total case marking. For instance, the verbs *mängima* 'play' and *suudlema* 'kiss' have only partitive objects if they appear without the particle. These verbs *must* have total case marking on the object if they appear with the particle. The generalization that the verbs that occur with the BP cannot express perfectivity without the particle is, however, wrong. It is challenged by verbs that combine with the BP but that are culminational, having a built-in endpoint. Verbs such as *tutvuma* '(make efforts to) get acquainted with', *ehitama* 'build', or *küpsetama* 'bake' are typical verbs that have a total object without the particle, the BP. The fact that the BP seems to have a clear effect on object case follows from the fact that the BP typically appears with activity verbs, which, in turn, typically have partitive objects. The sentences with the CP-verb combinations are frequently compatible with the completive adverbial test and durative adverbial test; the sentences with the BP are not compatible with the completive adverbial test and durative adverbial test.[52]

In conclusion, changing the base verb aspect is not a criterion for distinguishing the CP and BP. However, the two different particle types clearly appear with different but not mutually exclusive aspectual classes of verbs. While CPs typically combine with accomplishment and achievement verbs, even if the BP most typically appears in sentences that contain activity verbs, there are examples of BP in sentences with any aspectual classes of verbs.

5.4.2 Results

This subsection shows that the CP result pertains to the completely encompassed state of an argument; the BP result pertains to the achievement of a scheduled change in a situation. The phenomenon that could be called the BP result may, but need not, coincide with any change in the argument, it denotes a result that definite change in the whole situation.

5.4.2.1. CP describes a result

The CP *ära* denotes the result state of the complete encompassing of the theme, patient or experiencer argument. As the result of the activity that is described by the verb and described to be fully completed by the CP, the participants of the event are changed, created, traversed

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[52] The CP combinations with achievement verbs such as *surema* 'die' are, however, borderline cases. Particles combining with achievement verbs are most frequently referred to as "parasitic" uses of the

or destroyed totally. The resultant state of the roll from sentence (2) with the verb *eat* is that it has disappeared. The resultant state of the neighbor from the sentence (3) with the verb *die*, or the companion from the sentence (4) with the verb *kill* is that they do not exist anymore. In a way, the participants of the described events are 'away' (*ära*) in Metslang (2001)'s sense of fully not being in the area of the deictic center, being off or away. Being off or away from the deictic center is not an interpretation for the arguments of verbs such as *armuma* 'fall in love' in combination with the CP (5). Here the CP denotes the complete mental change in the attitude of the experiencer towards the referent of the illative marked NP. There are more examples where the particle *ära* adds only the completive meaning, where it means no more than "completed, done" and its role is rather discourse functional. For instance, the room is not *ära*, but *ära koristatud* 'clean, tidy' as the result described by CP-verb combinations such as in sentence (12) with the verb *koristama* 'tidy'.

(12)
Mari	*koristas*	*toa*	*ära.*
M.nom	clean.3.sg.past	room.gen	*ära.*

'Mary cleaned the room'.

Here it is the state of the room that has been changed completely.

5.4.2.2. The bounding particle denotes the reaching of a predefined goal

In contrast to CP results, the BP denotes the achievement of a separate goal. The state of the argument *kloun* 'clown' described in (1), the verb *mängima* 'play' cannot be described with what is the lexical content of *ära*. The clown is not away or completed at the end of the event. The event is not describable as Kati or Mari being away or completed (rough paraphrases of *ära*) in (8) (with the verb *tutvuma* '(make efforts to) get acquainted with'). The girl in (9) is not away or completed; also, no state or quality of her is changed completely (with the verb *suudlema* 'kiss'). Differently from the CP combinations, the change of state cannot be assumed to involve the argument, since the clown is non-referential in (1). However, the claim that there is no change that involves an argument is somewhat more difficult to support in the case of some sentences with the BP. This difficulty emerges in combinations where the meaning of the base verb contains a built-in endpoint and the arguments undergo a change. For instance, the activities of baking the cake (10) or reading the book (11) can be understood as finished and completed. But crucially, what is described as a result in the BP sentence is

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particle. These claims are illustrated in Tamm (to appear, b).

the change in the event or situation by achieving an expected, planned and scheduled goal, not a complete change in the argument referent or its properties. To illustrate this claim, I compare the verb *lugema* 'read' in combination with the CP *läbi* (13) (see more on different CPs in Section 5.5.3) and the BP *ära* (14) in the following two sentences:

(13)
*Ta   on   raamatu   **läbi**   lugenud…*
he/she is3.sg.past book.gen   through   read.act.ptcpl
'S/he has read a/the book through…'

#...pool sellest loetud raamatust   jäi   lugemata,
half   of this read book   left   unread,
selle   peab   ta   homme   lugema.
this.gen   must   he   tomorrow read.mainf
'…half of the read book remained unread, this s/he is going to read tomorrow.'

What is described in the sentence (13) entails that the whole book is read through. The following sentence (14) entails that the book reading is done, but the result of a book being read through is not an entailment but an implicature as evidenced by the cancellation.

(14)
*Ta   on   tänaseks   oma raamatu   ära   lugenud**…***
he/she is3.sg.past by-today   his/her book.gen   *ära*   read.act.ptcpl
'S/he has done her reading of the book (book-reading) for today...'

?...pool sellest loetud raamatust   jäi   lugemata,
half   of this read   book   left   unread,
selle   peab   ta   homme   lugema.
this.gen   must   he   tomorrow read.mainf
'…half of the read book remained unread, this s/he is going to read tomorrow.'

In (14) is that as for the book, the reading of it has been accomplished to some extent at least. But as for the intended goal of the activity, what is described in (14) entails that this goal is fully reached by doing the reading exactly to the extent it was done and planned.

5.5. Lexical differences between the base verbs

This subsection shows further evidence that the BP and CP must be considered as separate phenomena. Firstly, the lexical semantic characteristics of the base verbs that the BP and CP appear with are different and the way the lexical semantics of the base verbs interacts with the meaning of the particles is also different. Secondly, while the BP occurs freely in sentences, the different CPs occur in sentences with a "measure argument" in terms of Tenny (1994) and, therefore, their combinations with verbs are restricted according to the verbs' lexical semantic class.

5.5.1 Particle's selection criteria for the thematic roles involved

This section demonstrates that the occurrence of the bounding particle is not restricted according to the thematic roles of the base verb. The occurrence of the completive particle is restricted to verbs with a theme, a patient or an experiencer argument.

5.5.1.1. The CP-verb combinations have a direct internal argument

The CP combines only with verbs that have an internal argument. The verbs that combine with the CP typically have either a theme or a patient argument (*surema* 'die', *sööma* 'eat', *tapma* 'kill', *sulatama* 'melt'). A verb that combines with a CP can have an experiencer argument (e.g., *armuma* 'fall in love'). Many of these verbs have the thematic roles that are relevant for expressing aspectual oppositions that are frequently referred to as phenomena of telicity, or delimitedness (cf. Krifka 1992, Tenny 1994). These CP-verb combinations that have theme, patient or experiencer arguments typically denote the following types of changes:

a) a change of state (*ära koristama* 'clean', *ära hellitama* 'spoil by pampering', *ära jahtuma* 'cool down', *ära hirmutama* 'scare somebody to death', *ära harjuma* 'get accustomed', *ära rikkuma* 'spoil, ruin', *ära ummistuma* 'get stuck', *ära seedima* 'digest', *ära vaevama* 'tire, vex', *ära venitama* 'ruin by stretching', *ära hõõrduma* 'get scratched, suffer friction'), typically denoting gradual progress through a succession of changes of states, also mental; frequently in the sense of deterioration or harm.

b) traversal, change of state via incremental progress through or over the extent of the theme argument (*läbi lugema* 'read through', *ära sööma* 'eat up', *ära õgima* 'devour', *ära tallama* 'trample down', *ära õppima* 'learn', *läbi kuulama* 'listen to all of it', *valmis kirjutama* 'write up', *üles tähendama* 'write down', *läbi mängima* 'play through', *ette kandma* 'perform', *ära jaotama* 'divide', *ära seletama* 'explain').

c) complete mental encompassing of an incremental theme by the senses, *ära kuulma* 'hear all of it, have it heard', *ära nägema, kaema* 'see all of it', *ära proovima* 'give it a try', *ära katsuma* 'touch', *ära kannatama* 'survive or tolerate the whole extent of it'.

d) creation and destruction, coming into existence and ceasing: *ära tapma* 'kill', *valmis küpsetama* 'bake ready', *valmis ehitama* 'build so that it is ready' etc, *ära tarvitama* 'use up', *ära hävitama* 'destroy'.

The completive particle typically denotes the completion of the change or the progress through the theme or patient argument. The progress of the event described by the verb is paralleled by the progress of the change that involves the theme, patient or experiencer argument. The complete change of the argument referent (*koristama* 'clean'), or the complete traversal of it (*lugema* 'read') determines the endpoint of the event. The external argument of these verbs can have the agent thematic role as in the case of *sööma* 'eat', *tapma* 'kill', but this is not a necessary condition, e.g., *sulatama* 'melt', *armuma* 'fall in love', or *surema* 'die'.

5.5.1.2. The BP is independent of the thematic roles of the verb's internal arguments

In contrast to the CP, the occurrence of the BP is not dependent on the thematic nature of the internal arguments of the verb, and the verbs combining with it are primarily intransitive-agentive or transitive. The range of the internal arguments' thematic roles involved in combining with the bounding particle is wider and does not exclude that of a theme or a patient role. The thematic role of the internal argument of the verb, direct or indirect, displays a variety of possibilities: instrument (*mängima* 'play', *tegelema* 'be busy with'), theme or patient (*suudlema* 'kiss', and *küpsetama* 'bake'). The presence of a direct internal argument is not relevant for the BP. In case of *mängima* 'play', the argument is optional, in case of *tegelema* 'be busy with', there is none; Section 5.6.2 presents the data about the omission of objects. Whether the meaning of the verb with its arguments entails a change and whether the progress of the event needs to involve incremental traversal through the arguments is irrelevant with the BP; see the description of the data in 5.3.2 and 5.4.2.2. The progress of the event is not necessarily paralleled by progress through the theme, patient or experiencer argument. The complete change of the argument referent or its complete traversal is not connected to determining the endpoint of the event. Instead of denoting the endpoint of the progress through the argument, the BP denotes the endpoint of the progress through the measure of the whole scheduled, planned or foreseen event.

5.5.1.3. The BP and CP compared

The CP-verb combinations have patient, experiencer or theme roles. Therefore, the CPs typically combine with transitive verbs, such as the Estonian equivalents of *eat, kill* or with

intransitive but also unaccusative verbs, such as *die, melt*. The following Table 5.4 summarizes the comparison of thematic roles of the verb-particle combinations.

Table 5.4. Thematic roles of the arguments of the particle combinations

The CP	The BP
The verbs that combine with the CP have theme, patient or experiencer arguments. The CP-verb combinations can be described in terms the account of Tenny (1994).	The internal argument's thematic/aspectual role does not constrain the combinability with the BP
a) <Agent, Patient>, <Agent, Theme>, <Agent, Experiencer>, <Theme> a change of state (*ära koristama* 'clean', *ära hellitama* 'spoil by pampering', *ära jahtuma* 'cool down', *ära hirmutama* 'scare somebody to death', *ära harjuma* 'get accustomed', *ära rikkuma* 'spoil, ruin', *ära ummistuma* 'get stuck', *ära seedima* 'digest', *ära vaevama* 'tire, vex', *ära venitama* 'ruin by stretching', *ära hõõrduma* 'get scratched, suffer friction'), typically denoting gradual progress through a succession of changes of states, also mental; b) <Agent, Patient>, <Agent, Theme> traversal, change of state via incremental progress through or over the extent of the argument (*läbi lugema* 'read through', *ära sööma* 'eat up', *ära õgima* 'devour', *ära tallama* 'trample down', *ära õppima* 'learn', *läbi kuulama* 'listen to all of it', *valmis kirjutama* 'write up', *üles tähendama* 'write down', *läbi mängima* 'play through', *ette kandma* 'perform', *ära jaotama* 'divide', *ära seletama* 'explain') *maha kirjutama* 'copy'. c) <Experiencer, Theme>, (<Agent, Theme>) complete mental encompassing by senses, *ära kuulma* 'hear all of it, have it heard', *ära nägema, kaema* 'see all of it, have it seen', *ära proovima* 'give it a try', *ära katsuma* 'touch', *ära kannatama* 'survive or tolerate the whole extent of it' d) <Agent, Theme> <Agent, Patient> creation and destruction, coming into existence and ceasing: *ära tapma* 'kill', *valmis küpsetama* 'bake ready', *valmis ehitama* 'build so that it is ready' etc, *ära tarvitama* 'use up', *ära hävitama* 'destroy'.	*mängima* 'play' <Agent>, <Agent, Instr> , *jooksma* 'run' <Agent>, *tegelema* 'be busy with' <Agent, Theme>, *tutvuma* '(make efforts to) get acquainted with' <Agent, Theme>, *suudlema* 'kiss' <Agent, Theme>, *ehitama* 'build' <Agent, Theme>, *küpsetama* 'bake' <Agent, Theme>, less typically: *käima (kusagil)* 'go and be somewhere' <Agent, Loc>, *lohutama* <Agent, Experiencer> 'console' *vihastama (vihale ajama)* 'make angry' <Agent, Experiencer> *haiget tegema* 'hurt', *solvama* 'insult', *lõbustama* 'amuse'<Agent, Experiencer> *televiisorit vaatama* 'watch TV'<Agent or Experiencer, theme>, *magama* <theme> 'sleep'.

In sum, the occurrence of the CP is dependent on the nature of the direct internal argument's thematic role. Differently from the CP, the BP is more felicitous (but not restricted to) with verbs the subject of which has the agent thematic role, whereas the object's thematic role does not constrain the verb's occurrence with the BP. It is because the BP does not complete any activity related to an argument but bounds or completes the situation, the event, carrying out of it according to a plan or expectation of the right extent or measure of the activity; planning

and expectations require pragmatically that there be a planner—that cannot be non-human or at least not inanimate.

5.5.2. Combinations with the bounding particle are always transparent

While opaque verb-particle combinations are abundant with the CP, there are no instances of the BP in opaque verb-particle combinations. Both perfective particles can form transparent, compositional particle-verb combinations. Occasionally, a CP-verb complex has partitive objects, since the whole opaque lexical complex denotes a state or an activity and the completive meaning component is missing, e.g., *ära kasutama* 'take advantage of, use in one's own interests, use for one's own purposes, or *üles näitama* 'show' have a partitive object in sentences. Normally, however, the opaque CP-verb combinations have total objects. See Tamm (2004; to appear, b) for more examples. Hasselblatt (1990)'s examples that are provided with the label (ID) (meaning "idiomatic") are a further extensive source for opaque verb-CP combinations. The facts about the idiomatic combinations and also that many combinations are calques from German show that the CP is lexically more tightly connected to the base verb, forming lexical entries on their own. This is not likely of the BP.

5.5.3. Other perfective particles are CPs

The particle *ära* is the only particle with the characteristics of a BP in Estonian. It is the only means for expressing the reaching of a planned, scheduled or foreseen endpoint of an event that is not related to a measuring argument. In contrast, there are several means to express the completive endpoint. Completion can be expressed by what are called in the Estonian tradition 'perfective or perfectivizing adverbs', such as *valmis* 'ready, completed', resultative phrases, such as translative-marked phrases. The overview of resultative elements as defined by Rätsep is given in the footnotes of Subsection 2.2.5. Completion can be expressed by several other particles that are referred to as perfective particles. In addition to *ära* 'up, away, done', there are more instances of such particles: *läbi* 'up, through', *maha* 'down', *üles* 'up'. A more exhaustive list of CPs can be found in Hasselblatt (1990). If a CP in general is keyed to verbs of creation, destruction, change and traversal, then the difference between the CPs is the difference in the base verbs' meaning pertaining to the details of creation, change and traversal.

5.5.3. Summary

In sum, next to the perfective particle *ära*, of which two types are discussed here, there are other perfective particles in Estonian. Other perfective particles display the behavior of the completive perfective type only. The BP combinations are transparent, and combinations of CPs and verbs have clear restrictions on argument structure. Opaque combinations are attested only with the CP. The lexical semantic data discussed in this section provide more evidence that the BP and CP must be considered instances of separate particle uses.

5.6. Syntactic differences

The data from Section 5.5 suggest that the nature of combining the two types of particles with the verbs is different. The occurrence of the BP is less dependent on verb classification. Syntactically, however, neither of the particles emerges as a bound morpheme; they are both separable in syntax. This section presents those differences between the CP and BP that appear in syntax. The discussion starts with pointing at the relevant similarities and then turns to the differences in word order, omission of objects and particles, and deverbal adjective formation.

5.6.1. The particles are similar in combinations with the finite verb

The perfective particle *ära* is typically stressed, and typically occupying a clause-final position (see (1)-(11)).[53] Generally, it does not precede the finite verb.[54] This generalization has some exceptions. In subordinated clauses, and in case of neutral word order, the particle precedes the finite verb (15).

(15)
Ma   ei   tea,   kas   ta   õuna   ära   sõi.
I   neg   know   if   s/he   apple.gen   *ära*   eat.3.sg.past
'I do not know if he ate up the apple.'

The same distribution is also characteristic of the BP, as seen from example (16).

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[53] The study on the extraction of Estonian multi-word verbs (Kaalep and Muischnek 2003) demonstrates that the particle-verb combinations in general do not have a distinct distribution in the text corpora studied. However, the fact that the type of text influences the extractability may suggest that there are some regularities that are worth further study: precision in fiction 21%, parliamentary speeches 2%, newspaper texts 4% (Kaalep and Muischnek 2003:33). These data suggests that the more official and normative the text type, the less distributionallly telling facts we find. This in turn encourages a research more based on real spoken (instead of orally presented regulated speeches), unregulated language, work with informants, and introspection.

[54] Cf. the criteria mentioned in Kiefer and Honti (2003). See that source for more Estonian data.

(16)
*Ma   ei   tea, kas   ta   klouni   **ära   mängis.**
I   neg   know if   s/he   clown.gen   *ära*   play.3.sg.past
'I do not know if s/he managed playing the clown.'

Also, interrogative sentences can have particle-finite verb sequences as in (17) and (18).

(17)
*Kas   ta   klouni   **ära   mängis***?
Q.   s/he   clown.gen   *ära*   play.3.sg.past
'Did s/he do the playing the clown?'
(18)
*Kas   ta   õuna   **ära   sõi***?
Q.   s/he   apple.gen   *ära*   eat.3.sg.past
'Did s/he eat the apple up?'

With these data, there is no evidence of a different distributional status of these two particles in terms of occurrence in front of a finite verb. The following data concern the differences.

5.6.2. Omission of objects is impossible with CPs

The omission of the object reveals a difference between the CP and the BP in terms of the wellformedness of the sentences. The object cannot be omitted in verb-CP combinations. The omission of the object yields ungrammatical sentences as in (20):

(19)
*Päike   sulatas   jääpurika   **ära***.
Sun.nom   melt.3.sg.past icicle.gen   *ära*
'The sun melted the/an icicle.'

(20)
Päike   sulatas   ära.
Sun.nom   melt.3.sg.past *ära*

The CP requires the presence of an object. The BP co-occurs always with total objects if there is an object, as in sentence (1). In contrast to CPs, it is possible to omit an object in a sentence with the BP. In many cases, what looks like a difference between two particles may be simply a reflection of the opposition between an obligatory and optional argument. Therefore, it is necessary to study the combination of the BP with a predicate and an obligatory argument in sentence (21), which contains the verb *suudlema* 'kiss'.

(21)
*Ta   suudles   (tüdruku)   **ära***.
s/he   kiss.3sgpst   girl.gen   *ära*
'She did the kissing (of a girl).'

The combination of the BP with a predicate with an obligatory argument allows object omission. Tolerating the omission of the obligatory argument, the object, shows a difference between the two verbal particles.

4.6.3. Omission of particles

This subsection shows that the omission of the particles also has a different effect on the sentence. The omission of a CP frequently yields grammatical sentences with the total object even if the sentence becomes context-dependent; the omission of the BP can yield or fail to yield ungrammatical sentences with the total object, depending on the base verb class. In the case of many verbs without a built-in endpoint, such as the previously discussed *suudlema* 'kiss' in (21), the dropping of the particle would lead to ungrammatical sentences (22) with the total object case.[55]

(22)
Ta *suudles* *tüdruku.*
s/he   kiss.3sgpst   girl.gen
Intended meaning: 'S/he did the kissing of a girl.'

Ungrammaticality arises because the verbs that can occur with the BP and not with the CP do not contain any built-in endpoint; the event they denote cannot encompass an argument completely. If the event that the verb denotes is such that it can encompass an argument completely, the particle can be omitted as in (23). As discussed in Section 5.4.1, the CP frequently combines with such verbs.

(23)
Igaüks   *pidi*   *kolm*   *raamatut*   **läbi**   **lugema**.
everybody.nom   must.3.sg.part three.nom book.part   through   read.mainf
'Everyone had to read through three books.'

Kadri   *luges*   *kaks raamatut Aasia kohta*   *ja*   *ühe raamatu Aafrikast.*
K.nom   read   two books   about Asia   and   one book about Africa.
'Kadri read two books about Asia and one book about Africa.'

The reasons for the different effects of the omission of the particles are in the lexical semantics of the base verb in the case of CPs. On the other hand, the effect may be caused by the discourse issues of combining the different types of particle with the base verb, but discussing this issue falls out of the scope of my goal to present reasons to regard the two

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[55]The sentence is acceptable with the partitive object, which is typical of durative, atelic verbs.
Ta *suudles* *tüdrukut.*
s/he   kiss.3.sg.pst   girl.part
'S/he kissed a/the girl.'

particle uses as having different aspectual characteristics. A further discussion of those topics can be found in 5.6.4 and 7.4.2.2.

In sum, the omission of a CP may yield grammatical sentences with the total object even if the sentence becomes context-dependent; the omission of the BP, depending on the base verb class, yields ungrammatical sentences with the total object.

5.6.4. The particle and the information structure of the sentence

As described in Metslang (2001) and Rajandi and Metslang (1979), the position of the objects or obliques with regard to the CP reflects the organization of the information structure as in sentence (24), (25). The BP, being the only rhematic element in the sentence, has a fixed position and relates to only one information structural option. In sentence (24), the particle on the stressed sentence-final position follows the unstressed total case marked object NP. In this case, confirming Metslang's observation, the object refers to known referents. Metslang (2001) describes the aspect in this case as perfective, which is also correct.

(24)
Mari   koristas   toa   ära.
M.nom   clean.3.sg.past room.gen   ära
'Mary cleaned the room.'

In sentence (25), the stressed particle precedes the total case marked object NP, and this sentence is also described as perfective. Thus, the difference in word order does not result in any change in object case or aspect. Following Metslang, the object does not refer to known referents here. More specifically, this information may be considered as contrasted, specific in (25), that is, there is a choice between things to clean (up) and what Mary cleaned is a room.

(25)
Mari   koristas   ära   toa.
M.nom clean.3.sg.past   ära   room.gen
 'Mari cleaned a/the room.'

In (25), the element on the penultimate position is the particle. A particle, however, cannot refer to known referents. It has to be clarified if it retains its syntactic position, that is, strictly speaking, it does not occupy the penultimate position in (25), having an identical syntactic position with the one in sentence (24). Alternatively, it may still occupy the penultimate position, referring to the knownness of a different type of referent, such as an event. In sum, the case of the syntactic position of the CP is not closed, since it has an active role in structuring information. This, however, is not directly the topic of my dissertation and

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The verb is lexically atelic, being a typical "partitive" or "irresultative" verb in previous Estonian sources.

159

therefore, it is discussed only to allow for a comparison with the BP. In contrast, the BP does not "function as an information structurer". In the intransitive sentence (26), the playing with cars belongs to the known, old information as something scheduled, planned and foreseen.

(26)
Mari   mängis   autodega   ära.
M.nom play.3.sg.past   car.pl.comit   *ära*
'Mari finished playing with the cars.'

In sentence (27), the placement of "the cars" on the position after the particle, thus, as not known referents, yields a strange effect. This verb can occur only with the BP type, describing a scheduled, planned or foreseen event in which, also, the referents of its arguments are involved.

(27)
?Mari   mängis   ära   autodega.
M.nom   play.3.sg.past *ära*   car.pl.comit
'Mari finished playing with cars.'

And again, in a transitive sentence (28), the whole clown playing belongs to the known information as a part of the identity of the event.

(28)
Mari   mängis   klouni   ära.
M.nom   play.3.sg.past clown.gen   *ära*
'Mari finished playing the clown.'

In sentence (29), the clown appearing in the position not associated with known information yields a strange effect.

(29)
?Mari   mängis   ära   klouni.
M.nom   play.3.sg.past *ära*   clown.gen
'Mari finished playing a clown.'

In conclusion, an important ability of the CP is the participation in organizing the information structure of the sentence. On the other hand, the BP does not display this ability, since one cannot introduce the referents of the verb's arguments. They are part and parcel of a planned, scheduled or foreseen event or activity.

5.6.5. No deverbal (participial) adjective formation with the BP

Deverbal participial adjective (DPA) formation suggests that the two uses of the particles are further different. Deverbal participial adjective formation is only acceptable with CPs. The combinations of particles and verbs, including *ära*-verb combinations, behave differently in

adjectival participle formation as illustrated in the following examples. While it is possible to have sentences containing deverbal adjectives with the CP as witnessed by (31), (32), it is anomalous with the BP, as evident from (30).[56]

(30)
| #Ta | pani | ära küpsetatud | koogi | lauale. |
| s/he.nom | put.3.sg.past | BPbake.tud.prtcpl | cake.gen | table.allat |

('S/he put the baked cake on the table.')

(31)
| Ta | pani | valmis küpsetatud | koogi | lauale. |
| s/he.nom | put.3.sg.past | CPbake.tud.prtcpl | cake.gen | table.allat |

'S/he put the baked cake on the table.'

Sentence (41) serves to demonstrate that the particle *ära* as a form is an acceptable element in the DPA formation, therefore, there is again evidence for the distinction between CP and BP uses of the particle *ära*.

(32)
| Ta | pani | ära lõhutud | vaasi | lauale. |
| s/he.nom | put.3.sg.past | CPbreak.tud.prtcpl | cake.gen | table.allat |

'S/he put the broken vase on the table.'

There are several ways to understand the difference in the data about why a cake cannot be *ära küpsetatud*;[57] it must be *valmis küpsetatud*. If I try to give a rough English paraphrase to the difference between sentences (30) and (31), it reflects the difference between the results. Sentence (30) entails a result related to the measuring argument, (31) does not.

These data may also show that these two particle types may have different structural characteristics. The BP does not combine with adjectives and nouns—but the CP doesn't either. In the process of deriving deverbal participial adjectives, neither of these particles combines with an adjective. The difference is the unit that enters the derivation process. The CP as part of the verb enters the verb-based derivation and as a consequence, the CP that appears in the derivation, does not modify the adjective and the formation is acceptable. The

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[56] This sentence, however, needs embedding in the background context:
- Kuidas tal lood selle koogiga on? Kas ta sai küpsetamisega hakkama?
'How are things with this cake? Did she manage the baking?/Did she manage to bake it?'
- Jah, pärast pikka vaevanägemist küpsetas ta (selle) lõpuks siiski edukalt ära ja sai oma viie kätte.
'Yes, after a long struggle she did the baking of it successfully still and got her good mark.'
In the representation of particles and deverbal adjectives, there is also a normative issue of writing the particle separately or attaching it to the deverbal adjective, not discussed here in detail. Tauli (1972:127-128) writes that one should write the complex as one word in deverbal nominals (the forms -*v*, -*tav*, -*ja*, -*mine*, -*nu*, -*tu*) and the forms -*nud*, -*tud*, -*mata*, if they are case-marked or as Taulis's examples show, derivational bases. An earlier rule states that these forms are written as one word with the nouns if they occur as modifiers of nouns, but if the forms -*nud*, -*tud*, -*mata*-forms are modified, one should write them separately.

[57] It is possible if the baking is understood to affect an existing cake so that its crust becomes too crispy or burnt, that the *ära* pertains to changing the relevant extent of it, or some related interpretations. Evoking those interpretations, however, require extra processing as opposed to *valmis*.

BP, being not a part of the verb, does not enter the morphological verb-argument based derivation and as a consequence, in BP-adjective strings, the BP is left to modify an adjective. The outcome is not grammatical, since the BP, as any other aspectual particle, cannot modify an adjective. The following Table 5.5 presents the difference in the derivations.

Table 5.5. DPAs and the CP/BP distinction

CP	BP
ärasöödud kukkel 'the roll that has been eaten up' *ärasulatatud jääpurikas* 'the icicle that has been melt' *valmisküpsetatud kook* 'the cake that has been baked (ready)'	#*äraküpsetatud kook* (baked cake) #*ärasuudeldud tüdruk* (kissed girl) #*äramängitud kloun* (played clown)

A piece of evidence that the BP and the CP are not complements comes from the possible distribution of particles in (33), where at least two particles can co-occur. If one of them is a (resultative) complement, the other one cannot be.[58] A conclusive analysis, showing that the intuitions that the first *ära* in the sequence is a CP (33) and the second is a BP (34) are correct, has to be presented.

(33)
Ta   tappis   oma   kaaslase   ära   maha.
s/he   kill.3.sg.past own   companion.gen   *ära*   *down*
'S/He killed his/her companion. S/he did the killing of her/his companion.'
(34)
Ta   tappis   oma   kaaslase   maha   ära.
s/he   kill.3.sg.past own   companion.gen   *down*   *ära*
'S/He killed his/her companion. S/he did the killing of her/his companion.'

The BP does not "belong to the verbal center" in the terminology of Rätsep, even if one cannot ask a special question about it; but it is not a complement either.

In sum, the issue of deverbal participial adjective formation calls for further research. It is an area where the two particles display a significant difference. On the basis of the information, the BP *ära*, in contrast to the CPs, cannot be (felicitously) incorporated together with the verb and its internal arguments in the course of this operation.

5.6.6. Summary

Many syntax-related differences point to the fact that there are two uses of Estonian verbal particle that differ considerably. The BP and the CP are separable verbal particles that appear

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[58] Speakers from Southern Estonia and Tallinn accept the double particles more readily than those from the West, e.g. the islands.

transparently in sentences, but the opacity of many CP-verb combinations suggests that the CP is more tightly related to the verb than the BP.

5.7. Conclusive remarks

This chapter has provided a description of the bounding particle (BP) *ära* in contrast to a well-established use of the particle with the same form (*ära*) and also contrasting it to other perfective particles that are referred to here as completive particles (CP). The BP use of particle *ära* has the following characteristics:

1) it occurs only in spoken language;
2) it occurs typically in embedded, volitional contexts describing a succession of planned or foreseen events;
3) it occurs only in sentences where the details about the participants of the event and the identity of the event is predefined;
4) it is not a subcategorized argument of a verb;
5) its base verbs belong to all Vendler aspectual classes, the thematic role of their internal arguments is not restricted, and it does not measure out the event.

There is evidence that these two particle types have different structural characteristics. Deverbal participial adjective formation is ungrammatical with the BP and acceptable with CPs. The issues of the two types of particles are discussed further in Chapter 7.