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ENGLISH DIRECTIONAL PARTICLES *UP*, *DOWN*, *BACK* AND *FORWARD* AS ASPECT MARKERS

MA thesis

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ABSTRACT

The aim of this thesis is to characterize the aspectual functions that the English directional particles *up*, *down*, *back* and *forward* can have in verb-particle combinations in order to see, whether these aspectual meanings the aforementioned particles have attained through grammaticalization could be explained with a systematic correlation between our embodied experience of motion in space and the linguistic means we use to express the way we perceive the inherent (temporal) structure of events, actions and situations. To this end a corpus study using the newspaper texts of the *British National Corpus* is conducted. Although numerous authors have explored the topic of particles as aspect markers in English, few of them have corroborated their claims with corpus data and only Veismann and Tragel (2008) and Tragel and Veismann (submitted) writing about Estonian appear to have used the embodiment theory to explain how directional particles take on aspectual functions.

The thesis consists of an introduction, three chapters, conclusion and five appendices. Chapter 1 gives an overview of the general theoretical background of the thesis and defines and discusses some of the significant linguistic notions referred to in the empirical part. Chapter 2 explains the data collection procedure and method of analysis of the corpus analysis, as well as presents and discusses the results of it.

Chapter 3 provides a cross-linguistic analysis between English and Estonian for which the results of the corpus analysis presented in the present thesis are compared and contrasted with the results of the corpus analysis carried out by Tragel and Veismann (submitted) about Estonian directional particles in the aspectual function. The comparison provides an opportunity to see whether the claim made originally by Veismann and Tragel (2008) that there is a correlation between the direction the particle expresses in its spatial meaning and the aspectual function it can attain through grammaticalization could be supported by the data concerning English.

The main findings of the thesis are summarized in the conclusion.

TABLE OF CONTENTS

INTRODUCTION

Adpositions and spatial prepositions in particular have been a major field of interest to cognitive linguists for a few decades now. However, most of the studies on the topic carried out so far have concentrated on describing the semantics of adpositions from the perspective of their spatial or figurative senses (Boers 1996: 23-24). In the present thesis, directional prepositions and adverbs (henceforth *particles* to avoid a discussion on the distinction between adverb and preposition; see section 1.3.3 of this thesis for further discussion on the use of *particle*) in verb-particle combinations as markers of aspectual function are at the centre of attention.

The objective of the present thesis is to characterize the aspectual functions the English directional particles *up*, *down, back* and *forward* can contribute to the verbs with which they co-occur in phrases commonly referred to as phrasal verbs or verb-particle combinations. For this, a corpus analysis was carried out. Although many authors (Traugott 1978, Lindner 1981, Brinton 1988, Hampe 1997, Rice 1999, Talmy 2000, Dirven 2002, Rice and Newman 2004, among others) have studied the aspectuality of certain English particles, Rice and Newman (2004) are the only ones available to the author of the present thesis at the time of writing this thesis who have supported their claims with results from a corpus analysis. Furthermore, the present thesis also aims to explore whether the aspectual functions prompted by the aforementioned particles can be explained with the correlation between the embodied experience of motion in space and the type of aspectual functions the particles may have (see Veismann and Tragel 2008 about Estonian). Although different authors have proposed various explanations for how directional particles have grammaticalized into aspect markers, none of them (with the exception of

Veismann and Tragel 2008) appear to have suggested embodiment-based metaphorical extensions as a possible account.

The present thesis is modeled on research done by Ilona Tragel and Ann Veismann (Veismann and Tragel 2008; Tragel and Veismann, submitted) on the aspectual meanings of the Estonian directional verbal particles *edasi* 'forward', *tagasi* 'back', *ette* 'ahead', *üles* 'up' and *maha* 'down'. Tragel and Veismann (Veismann and Tragel 2008; Tragel and Veismann submitted) were looking for a correlation between the direction the particles express in either the vertical or horizontal dimension and the (aspectual) meaning directional particles can motivate in verb-particle combinations. Their aim was to show that the embodiment theory could be used to explain which aspectual function directional particles attain when they grammaticalize into aspect markers. The research by Tragel and Veismann (Veismann and Tragel 2008; Tragel and Veismann submitted) was chosen as the basis for the present thesis because the embodiment theory has been insufficiently used by other authors to explain how directional particles can grammaticalize into aspect markers. In addition, as Veismann and Tragel (2008) have also pointed out, to be able to say whether the systematic correlation between the embodied experience and the types of aspectuality is a "universal" tendency, further research and evidence is needed.

The thesis has two hypotheses. The first of them is that if our embodied experience of motion in space could be a cross-linguistic basis for directional particles grammaticalizing to potential aspect markers in verb-particle combinations, the corpus study of the English particles *up*, *down*, *back* and *forward* ought to provide similar results to those of the corpus analysis of Estonian directional particles (Tragel and Veismann, submitted) in terms of which aspectual distinctions the particles are able to make in the respective languages. The second hypothesis is that since the English directional particle *forward* has not been described as a potential aspect marking particle by any author

available at the time of writing this thesis and since English already has a morphosyntactically distinct progressive aspect marking system, it is assumed that the corpus analysis of *forward* will provide examples of it marking only spatial function and some kind of metaphorical function.

The thesis consists of three chapters. Chapter 1 gives an overview of the theoretical framework the thesis proceeds from, explains some key concepts as well as outlines relevant background and previous research on the topic. Chapter 2 is devoted to presenting the results of the corpus analysis of the English directional particles *up*, *down, back* and *forward.* It contains a description of the data used and the methodology applied, an overview of the results of the corpus analysis particle by particle and a comparison of the particles. Chapter 3 compares the results of the corpus analysis of this thesis to that of Tragel and Veismann (submitted). The thesis ends with a conclusion where the most important results are outlined.

CHAPTER 1. THEORETICAL FRAMEWORK AND BACKGROUND

The following sections set the scene for the empirical part of this thesis, presented in Chapter 2. Section 1.1 provides a brief overview of the theoretical framework of this thesis, which is cognitive linguistics and one of its basic assumptions, the embodiment hypothesis. Section 1.2 defines the notion of grammaticalization, which is the process behind directional particles taking on aspect marking functions, and explains the roles of metaphorical extension and embodiment in the grammaticalization process of aspect marking particles. Section 1.3 discusses how *aspect* is defined for the purpose of this thesis, outlines and defines the aspectual distinctions referred to in Chapter 2 and gives an overview of previous research on the topic of aspect marking particles in English. The last section in this Chapter, section 1.4 summarizes research by Tragel and Veismann (Veismann and Tragel, 2008; Tragel and Veismann, submitted), which the present thesis has been modeled on.

1.1 Cognitive linguistics and one of its basic assumptions: the embodiment hypothesis

The theoretical framework applied in this thesis is cognitive linguistics, a functionally oriented branch of linguistic theory, which was first developed in the works of George Lakoff, Ronald Langacker and Leonard Talmy in the 1970s–1980s primarily as a reaction against formalist approaches to language. One of the fundamental characteristics of Cognitive Linguistics is the view that language should be considered a part of general human cognition as opposed to the formalist view of a separate faculty of language (Saeed

1997: 342–343). For cognitive linguists linguistic knowledge not only reflects knowledge of the language but also knowledge of the world as mediated through language. Some of the key conceptual phenomena that cognitive linguists apply to investigate the way knowledge of the world is mediated through language are: prototypicality, metaphor, metonymy, embodiment, perspectivization, mental spaces and image schemas (Geeraerts and Cuyckens 2010: 3–6). In the context of this thesis, conceptual metaphors and the embodiment hypothesis are of particular interest.

Cognitive linguistics is not a single unified framework but rather a set of common basic assumptions. One of the basic assumptions, which is especially significant for this thesis, emphasizes that the fact that humans have bodies through which they experience the world (the embodied experience) has a major effect on people´s abstract thinking and language (Johnson 1987; Gibbs 2006). The essential idea behind the embodiment hypothesis is that because of our physical experience of being and acting in the world, we form basic conceptual structures which we then use to organize our thinking across a range of more abstract domains. Already in 1980 Lakoff and Johnson argued that a considerable part of the everyday language that we use to characterize a wide variety of experiences and the world around us is systematically shaped by a relatively small number of metaphors. According to them (Lakoff and Johnson 1980), these metaphors draw primarily on domains stemming from our bodily experience and the bodily source domains do the vast majority of the work of structuring more abstract human concepts.

From the point of view of this thesis, the vertical experience that arises, for example, from us having to exert effort or use external help to be able to move up and down, and the horizontal experience that arises from the fact that in the back-forward dimension we are free to move however we wish, are especially important. As semantic change is often driven by embodied experience (Gibbs 2006: 160–161), human experience

of motion in space could be seen here as the source domain for embodiment-based metaphorical mapping onto the target domain of the way we perceive of the inherent temporal structure of actions, events and situations. On the language level, metaphorical extension functions as the foundation for directional particles grammaticalizing into aspect markers (see section 1.2, pages 10–11 for a more detailed discussion).

1.2 The roles of metaphor and embodiment in the grammaticalization of aspect

Grammaticalization, which has been defined by Heine and Narrog (2010: 401) as "the development from lexical to grammatical forms, and from grammatical forms to even more grammatical forms," is a natural process that characterizes world´s languages. The functional approach to grammaticalization began in the 1990s (Heine, Claudi and Hünnemeyer 1991) and the abovementioned definition has been used since then. In the present thesis, the theory of grammaticalization forms the background for the study of aspect marking particles that have attained aspectual function through grammaticalization.

An important assumption about grammaticalization is that the changes characteristic to it follow certain paths and are in no way random. These paths can be said to be unidirectional in that there are few examples that contradict the lexical to grammatical to more grammatical model. (Heine and Narrog 2010: 402–403) Research done in the field indicates that the direction of grammaticalization is from more concrete meaning to more abstract meaning. This ties in with the lexical to grammatical nature of the phenomenon as lexical or less grammaticalized linguistic expressions can be seen as more concrete (expressing, for example, things, actions, qualities) and thus more easily accessible, which, over time, may become to be used to express less easily accessible and more abstract meaning and thus eventually grammaticalize. (Heine and Narrog 2010: 402)

The grammaticalization as aspect marking particles follows the more concrete to more abstract nature of the model: particles that in their literal, more concrete meaning express direction grammaticalize into markers of aspect, which can be seen as the more abstract meaning of how we comprehend the way actions, events and situations are inherently temporally structured.

According to Bybee et al. (1994: 23–24), the study of the mechanisms and the pathways of grammaticalization can provide important information concerning why human language has grammar at all and why it has the specific form and meaning that it has. For a few decades now, linguists have been working on revealing those mechanisms and pathways that are present in our everyday language use and that can ultimately bring about changes in grammatical categories (Bybee et al. 1994: 24). To be more precise, linguists are interested in what kinds of meaning change are involved in grammaticalization and the cognitive processes that drive them (Hopper and Traugott 2003: 75). Hopper and Traugott (2003) name reanalysis (rule change) and analogy (rule generalization) as two of the most important mechanisms behind grammaticalization and they see metaphorical processes as one of the pragmatic factors driving these mechanisms.

According to Hopper and Traugott (2003: 84), changes brought about by metaphorical processes are widely acknowledged in meaning change. This view is supported by Bybee et al. (1994: 281–282) who identify metaphorical extension as one of the mechanisms behind semantic change. What is more, there are also authors like Heine, Claudi and Hünnemeyer (1991) who argue that metaphorical mapping can be seen as the major mechanism behind grammaticalization. As stated by them (Heine, Claudi and Hünnemeyer 1991), metaphorical processes are processes of inference across conceptual boundaries, which are typically referred to in terms of 'mapping' or 'associative leaps' from one domain to another. The mapping, as metaphorical processes in general, is not

random, but based on comparison and analogy. Heine et al. (1991) go on to suggest that metaphorical mapping is a submechanism of abstraction which in turn is one of the main means of grammaticalization and that conceptual metaphors (in the sense of Lakoff and Johnson 1980) is a tool of the mapping from one stage to the other in the grammaticalization chain. (Heine et al. 1991) Heine and Claudi (1986) have even referred to the stages of the grammaticalization chain as categorial metaphors.

Deriving from the role of metaphorical processes in meaning change and grammaticalization, it can be said that the phenomenon of metaphorical mapping is of significance for interpreting, explaining and understanding grammaticalization and thus also for understanding, explaining and interpreting how and why verbal particles attain aspectual meaning. Figure 1 illustrates a simplified view of the role of metaphor and embodiment in the process of grammaticalization of aspect.

Metaphorical extension (based
on embodiment)

Human (embodied) experience   ⟶   The way we perceive the
of motion in space   inherent (temporal) structure
                                                                                   of events and situations

MIND

⬇

LANGUAGE

Grammaticalization

Language units that express   ⟶   Language units that express
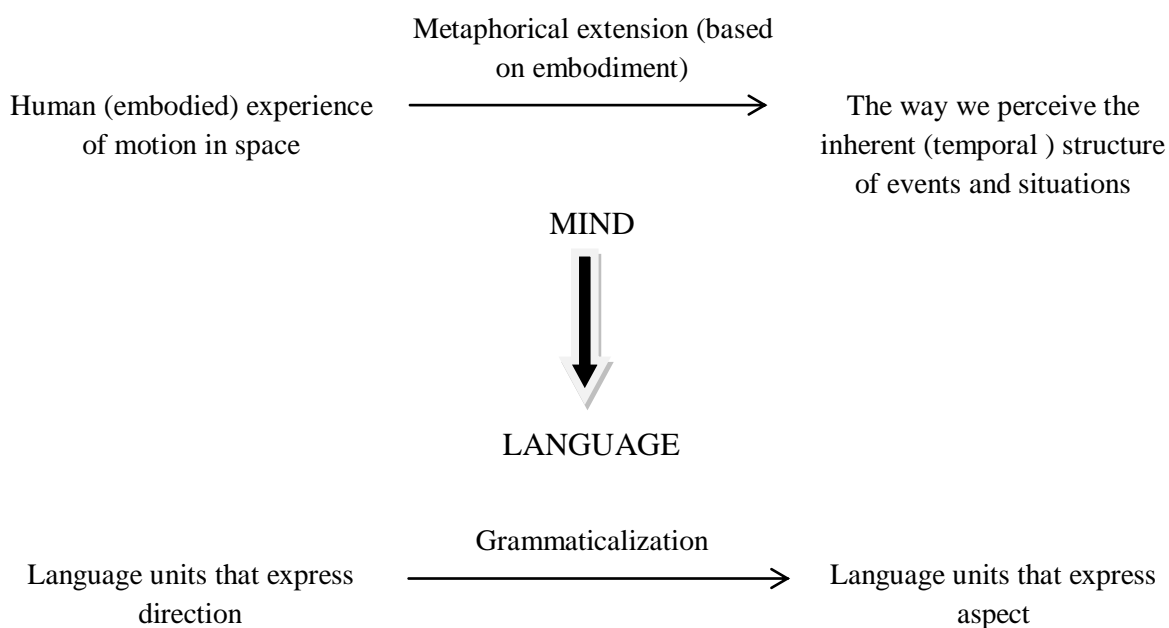direction   aspect

Figure 1. The roles of metaphor and embodiment in the grammaticalization of aspect

The upper part represents what goes on in the mind while the lower part stands for the related changes that take place in the language. On the level of the mind we can refer to human experience of motion in space as the more concrete source domain and the way we

perceive the inherent structure of events and situations as the more abstract target domain of metaphorical extension based on embodiment. On the language level this process is reflected by linguistic means that grammaticalize to express aspectual distinctions. Particles that express direction in their spatial meaning grammaticalizing into particles that can also carry aspectual meaning in combination with certain verbs are the focus of analysis in the present thesis as it is argued that the specific aspectual functions that certain particle can take on correlate with the type of direction they express in their spatial meaning and that this metaphorical mapping from the spatial meaning to the aspectual meaning is based on our embodied experience.

1.3 Aspect

Hans Jürgen-Sasse (2001: 2) begins his overview of "recent activity in the theory of aspect" with the idea that "it has become commonplace to introduce works on aspect with the remark that there is hardly another field in linguistics so much plagued by terminological and notional confusion." This suggests that *aspect* is a linguistic phenomenon many have discussed and written about but the intricacies of which few agree on. Due to the "terminological and notional confusion" (Sasse 2001: 2) present in the field, the following sections are aimed at clarifying how *aspect* is defined for the purpose of the present thesis and which aspectual distinctions are applied in the empirical part of it and how they are defined.

1.3.1 Defining aspect

According to the different treatments of various authors, *aspect* can be identified as a characteristic of a verb, a phrase or even a whole sentence. What is more, some authors

define *aspect* in a wider sense, including all phenomena that in some way characterize the "internal temporal constituency of a situation" (Traugott 1978: 387), while others use the notion of *aspect* in a narrower sense, to refer to 'viewpoint aspect' or 'aspect proper', which in their opinion should be kept apart from 'lexical aspect', most widely known as *Aktionsart* or 'situation types' (Sasse 2001). In this thesis, I have chosen to define aspect as Rice (1999: 245) who wants her use of *aspect* to "be interpreted neutrally to mean the way in which an event is construed as distributed through time /…/ rather than [in] the more narrow sense of inflectional aspect marked on the verb."

Although it is not the purpose of this thesis to discuss the different definitions of *aspect* or to provide any new definitions and although no distinction between 'aspect proper' and *Aktionsart* is made in this study, a brief outline of both the nature of 'aspect proper' and *Aktionsart* is in place here to help provide an overview of the essence of the phenomenon of aspectuality. In explaining the differences between *aspect* and *Aktionsart*, Dahl (1999: 30) argues that the term *Aktionsart* is mainly used to refer to the inherent objective characteristics of a situation, while the term *aspect* would be used to refer to the different viewpoints one can have in relation to a situation (being thus more subjective compared to *Aktionsart*). To put it even more plainly, *Aktionsart* can be thought of as an inherent categorization of verbs that cannot be changed as opposed to 'aspect proper', which offers different viewpoints that can shift according to the situation. Another possibility of distinguishing *Aktionsart* and 'viewpoint aspect' is to refer to the different levels of language they interact with. *Aktionsart* is first and foremost related to the lexical level, while 'aspect proper' to the grammatical level. (Dahl 1999: 30)

According to Sasse (2001: 4), there are authors who make a clear distinction between *aspect* and *Aktionsart* as well as authors who just use the general term *aspect*, although having different things in mind. In the context of this thesis, the more general

approach to *aspect* has been adopted and I believe that evading the discussion on the exact nature of the term and avoiding labeling the phenomenon investigated here as either 'aspect proper' or *Aktionsart* does not take away from the results of this study. However, it is important to keep in mind the semantic definition of *aspect* rather than the morphological one because *aspect* may appear overtly in very different ways in different languages or even in the same language. *Aspect* may be expressed inflectionally or by using derivative affixes, particles, auxiliary verbs or fully lexicalized adverbs. In addition, *aspect* may also appear covertly, which means that it is a part of the lexical meaning of a verb and has no independent morphological realization (Traugott 1978: 372–373), which is the case for example in Estonian. It is also important to keep in mind that setting off from the embodiment hypothesis, in cognitively oriented linguistics and in the present thesis *aspect* has been seen as a "mental system" the representation of which is rooted in "mental and bodily experience" (Hewson 1997: 2).

1.3.2 Aspectual distinctions

Traugott (1978: 387–388) has claimed that it is unclear whether languages of the world present only one basic aspectual opposition or whether there are more. What is clear, though, is that there is no exhaustive list of aspectual distinctions and their meanings, which all authors who have studied aspect would agree on. Still, Traugott (1978: 388) argues that progressive and perfective are the two aspectual distinctions that authors have discussed most widely and least ambiguously. Comrie (1976: 3–4), however, suggests that the differentiation between perfective and imperfective aspect is the aspectual distinction most commonly made.[1] What adds to the confusion is that in addition to the question of what kind of aspectual variations exist and how different aspectual meanings should be

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[1] Comrie (1976: 25) categorizes progressive aspect as one of the subdivisions of imperfective aspect, via continuous aspect.

named and defined, there is the issue of whether to distinguish between aspect and *Aktionsart*, which was briefly discussed in the previous section. In this thesis, a neutral standpoint, according to which the potential discrepancies between aspect and *Aktionsart* are of little importance, is taken. Thus, the aspectual distinctions made in this thesis are deliberately described from the perspective of their *aspectual* meaning or function, in the sense of Brinton (1988: 4), who has suggested the term *aspectual* to be used inclusively, encompassing both aspect and *Aktionsart*. In addition, it should be noted that 'meaning' (understood here in the broad sense) and 'function' are used interchangeably in this thesis when co-occurring with *aspectual* as both of them are employed to refer to the role particles have in verb-particle combinations.

As it is not my purpose to examine in detail or (re)organize the existing, although at times contradictory accounts, I have chosen to define the aspectual distinctions applied in the empirical part of this thesis based on several authors (Heine and Kuteva 2002, Rice and Newman 2004, Talmy 2000, Dressler 1968, Tragel and Veismann submitted), whose accounts of specific aspectual distinctions appeared to fit my language data the best. In the subsequent list the aspectual functions referred to in the analysis part of this thesis have been defined and illustrated with examples. It is by no means exhaustive in terms of all the aspectual distinctions present in the literature concerning aspect and only different types deemed significant for this study are presented. The aspectual distinctions made in this thesis are:

Completion is used here to draw specific attention to something being done thoroughly and to completion (Heine and Kuteva 2002: 18). This function is exemplified by verb-particle combinations like *clean up*, *sum up* and *close down*.

Disintegration is an aspectual meaning, which, according to Rice and Newman (2004: 319), denotes activities or processes which result in the complete removal or

disappearance of something. They associate the meaning of disintegration mainly with the English particle *away* (for example in verb-particle combinations like *cut away, wash away, fade away*) (Rice and Newman 2004: 319); however, it can also be seen in verb-particle combinations like *chop up* and *burn down*.

Continuous aspect is seen as the marker of events that are in progress at reference time, due to which it could be interpreted to have the meaning 'be doing' or 'keep on doing' (Heine and Kuteva 2002: 19). This is exemplified by verb-particle combinations like *carry forward*, *drive forward* and *move forward*.

Next stage aspect is an aspectual function expressing transfer or motion to the next stage within one event or state (Tragel and Veismann submitted). Examples of this kind of aspectual distinction are verb-particle combinations like "*go forward* for consideration at national level" or "*go forward* to public consultation and a public meeting".

Reciprocative aspect has been identified by Talmy (2000: 121) as "V in reciprocation for being Ved" and is exemplified by verb-particle combinations like *fight back* and *hit back*.

Reversative aspect has been taken here to mean that "motion" in abstract space is directed backwards towards its starting point or the situation from which everything set off (Dressler 1968, cited in Bertinetto and Lenci 2012). Examples of the reversative aspect can be seen in verb-particle combinations like *want back*, *claim back* and *win back*.

It should also be noted that disintegration and completion in particular are defined here to have an inherent meaning of perfectiveness. What sets them apart from each other is that while the use of the completive aspect draws attention to something being completed, disintegration emphasizes that something disappears or is completely removed.

What is more, as to the definition of the continuous aspect, for Heine and Kuteva (2002: 19), this term combines both the notion of progressive aspect and durative aspect, which have been distinctly set apart by some other authors (see, for example, Comrie 1976).

1.3.3 Aspect marking particles in English

According to Quirk et al. (1985: 1150), "the phenomenon of multi-word verbs" is "a topic of peculiar importance in English". Though Quirk et al. (1985: 1150) refer to verb-particle combinations broadly as "multi-word verbs", the term *phrasal verbs*, which are typically considered to be petrified phrases which have a fixed, to a greater or lesser extent idiomatic meaning, is used commonly to refer to the phenomenon. However, it is one of the aims of the present thesis to demonstrate that verbs combining with particles is a productive way for expressing aspect in English and that verb-particle combinations can have meanings which need not be idiomatic or fixed. What is more, although some traditional grammars of English (see, for example, Quirk et al. 1985) as well as different authors (see, for example, Brinton 1988, Lindner 1981[2]) have made a distinction between verb-particle combinations that are formed by verbs combining with adverbs and verbs combining with prepositions, here the term *particle* will be used for words that could be categorized as either adverbs or prepositions. This is done following Gries (1999, cited in Dirven 2002: 492), to evade a terminological discussion which will not contribute to the goal of the study. All in all, for the purpose of this thesis the term *verb-particle combination* will be used instead of *phrasal verb* to refer to the combinations of verbs with *up*, *down*, *back* and *forward*. The relation of each particle with specific verbs is evaluated separately for each sentence.

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[2] Still, Lindner (1981: 5) herself states that the criteria for making a distinction between prepositions and adverbs "are best thought of as characteristic tendencies of each construction rather than exceptionless defining features".

In general, the semantics of verb-particle combinations in English has been much discussed in the framework of functional linguistics (see Traugott 1978, Lindner 1981, Brinton 1988, Hampe 1997, Rice 1999, Talmy 2000, Dirven 2002, Rice and Newman 2004, among others). For instance, Dirven (2002: 483) has suggested that studying the semantics of prepositions or particles the verbs appear in combinations with is pivotal to the study of verb-particle combinations as particles make a "special 'constructional' contribution /…/ to the whole." Hampe (2000: 81) adds to this that "the particle is not an arbitrary, meaningless or redundant addition to the verb, but /…/ its presence is meaningful in the sense of 'motivated', determining both semantic and pragmatic properties of the construction". Particles *up*, *down*, *back* and *forward* that could potentially add an aspectual reading to the meaning of a verb or that could accentuate or highlight the aspectual meaning inherent in the verb are under observation in the present thesis.

Most of the previous studies (Lindner 1981, Brinton 1988, Hampe 1997, to name a few) that have specifically concentrated on the possible aspectual meanings of verbal particles discuss the potential aspectual force constituted by *up*. For example, one of the pivotal works on the (aspectual) meanings of the English verbal particles is Susan Lindner´s (1981) doctoral dissertation on the semantics of *up* and *out*. Her study is often described (see for example Dirven 2002: 488; Hampe 1997: 89) as "the first cognitive analysis of particle verbs" (Dirven 2002: 488). In addition, Lindner´s work was the earliest to suggest that the use of *up* in verb-particle combinations is a metaphorical extension based on the notion of verticality. Lindner also refers to *up* being able to motivate perfective aspect in verb-particle combinations. Relying on Lindner's study and conceptual metaphors, Hampe (1997: 91), in her analysis of the differences between *to face* and *to face up to*, suggests that the metaphor CLOSE IS UP has grammaticalized into COMPLETION IS UP, which is why *up* can provide verb-particle combinations with a sense of completion.

In her detailed overview of the development of English aspectual systems, Brinton (1988) devotes a distinct section for the verb particles as aspect markers in Modern English, also looking at their development into acquiring such non-literal meanings. Her most basic claim is that prefixes and particles with a spatial meaning grammaticalize into aspectual prefixes and particles, as over time the speaker´s attention shifts from the physical activity to the goal or completion of the event (Brinton 1988: 197–198). Brinton (1988: 196) agrees with Lindner (1981) in that *up* in phrasal verbs, despite the specific meaning it motivates, is an extension or a generalization of spatial meaning.

Rice (1999) and Rice and Newman (2004) have also studied the English aspect-marking prepositions. In her article about the aspectual meanings of the English particles *after* (retrospective aspect), *away* (continuous aspect), *on* (resumptive aspect) and *over* (semeliterative, corrective aspect), Rice (1999: 244) suggests that for example in English, a number of prepositions can at times be seen functioning as aspectual particles that indicate fine-grained aspectual distinctions which verbal inflection is not always capable of making. She emphasizes the need to study the aspectual usages of prepositions and to integrate this use type into the full set of prepositional meanings and functions. In addition, Rice argues that directional particles grammaticalizing into aspect markers is a very natural train of events where aspectual meanings are extensions of certain spatial meanings. In their corpus analysis of the aspectual force carried by *on*, *away*, *over*, *again* and *around,* Rice and Newman (2004: 315) promote corpus techniques in cognitive linguistic analysis and claim that corpus data is essential for providing support for claims founded on the researcher´s intuition. Based on their analysis they come to the conclusion that in certain combinations *away* expresses continuation and *on* the resumptive aspect.

Talmy (2000: 120) has stated that in many languages aspect can be expressed by satellites.[3] However, he adds that "frequently, these satellites do not indicate purely 'the distribution pattern of action through time' (as aspect was characterized earlier)" but that "this purer form is mixed with, or shades off into, indication of manner, quantity, intention, and other factors" (Tamly 2000: 120). Talmy´s argument that aspect marking particles do not express only well known and widely acclaimed aspectual distinctions is also proven by some of the results of the present thesis, which will be presented in sections 2.3.3 and 2.3.4. Although according to Talmy (2000: 120) English is commonly not considered a language that expresses aspect in its satellites, he claims that English does provide adequate examples of aspect satellites. He presents the potential aspectual meanings of the English aspect satellites *re-/over*, *on*, *away*, *along*, *off*, *up* and *back,* of which the two last ones are of interest for the purpose of this thesis. Talmy (2000: 121) attributes *up* and *back* with the meanings "V all the way into a different (a nonintegral/denatured) state" and "V in reciprocation for being Ved" respectively.

In addition to outlining the different aspectual meanings English verbal particles may have, many authors (Rice and Newman 2004, Dirven 2002, Rice 1999, Hampe 1997, Brinton 1988, Lindner 1981, Traugott 1978, among others) have discussed the pathways for the grammaticalization of aspect marking particles. For instance, Traugott (1978: 388–393) has claimed that markers of terminative aspect have developed from words which in the spatial domain express either the source (for example, the English *out*), the path (for example, the English *through*) or the vertical plane (for example, the English *down*, *up*), while markers of the continuative and progressive aspect have developed from words which express belonging or inclusion (for example, the English *in*, *at*, *on*). However, no author available at the time of writing this thesis appears to have come to the conclusion

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[3] According to Talmy (2000: 102), a satellite is "any constituent other than a noun-phrase or prepositional-phrase complement that is in a sister relation to the verb root"; English verb particles fit this description well.

that the type of aspect the directional particle can expresses and the way humans experience motion in the direction the particles expresses in its spatial meaning could correlate.

What is more, with the exception of Rice and Newman (2004), most authors have based their assumptions on the aspectuality of certain particles on introspective methodology. However, Rice and Newman (2004: 316–317) suggest that the use of introspective methodology alone may result in some important usages, especially those characteristic to the earlier phases of grammaticalization being overlooked. Thus, the present thesis aims verifying the claim made by Tragel and Veismann (Veismann and Tragel 2008; Tragel and Veismann submitted) that the kind of aspectual distinctions directional particles can make in verb-particle combinations is systematically related to our embodied experience.

1.4 Overview of the research by Veismann and Tragel (2008) and Tragel and Veismann (submitted) on the aspectual functions of Estonian directional particles

As a point of departure for this thesis, research done by Tragel and Veismann (Veismann and Tragel 2008; Tragel and Veismann submitted) was used. In their studies written in the framework of cognitive linguistics, Tragel and Veismann examined the Estonian directional verbal particles *edasi* 'forward', *tagasi* 'back', *ette* 'ahead', *üles* 'up', *alla* 'down' and *maha* 'down' to see what kind of additional meaning verb-particle combinations attain depending on which directional particle they are constructed with.[4] They were looking for a correlation between the direction the particle expresses (in its

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[4] Later Tragel and Veismann (submitted) excluded *alla* 'down' from the analysis because their corpus data revealed that there were no aspectual usages with this particle. For a potential explanation for this, see Kährik (2001) who discusses Estonian verb-particle constructions with *alla* 'down' and *maha* 'down'.

spatial function) in either the vertical or horizontal dimension and the meaning that it motivates in the verb-particle combination. Their hypothesis was that since people experience vertical and horizontal motion differently, this could also somehow be reflected in their language use as one of the basic assumptions in cognitive linguistics proposes that there is a systematic connection between people's bodily experience and abstract conceptualization (Lakoff and Johnson 1980; see sections 1.1 and 1.2 in the present thesis).

In order to verify their hypothesis, Tragel and Veismann carried out two studies. In the first one (2008) they used the *Database of Estonian verbal multi-word expressions*[5] to investigate the different possible aspectual and other abstract meanings the aforementioned particles could prompt in verb-particle combinations. In the second study (submitted) they searched for additional evidence for the claim made in the first study that there does appear to be a correlation between the directions the particles express and the type of aspectual function they can have. For this they conducted a corpus analysis. About 300 sentences for each particle were extracted from the sub-corpus of newspaper texts of the *Corpus of Written Estonian*[6] (865,000 words). Only sentences in which the particles occurred in verb-particle combinations were chosen for analysis. All the occurrences were manually coded for the verbs the particles occurred in combination with and spatial, aspectual and other (metaphorical, idiomatic, other abstract) meanings the particles had in the combinations. The corpus analysis of Tragel and Veismann (submitted) was used as a model for the corpus analysis conducted in this thesis, presented in Chapter 2.

Based on the results of the previously described studies, Tragel and Veismann (Veismann and Tragel 2008; Tragel and Veismann submitted) came to the conclusion that in Estonian there is a correlation between the aspectual meaning directional particles can carry in verb-particle combinations and the different experiences people have of moving in

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[5] Available at http://www.cl.ut.ee/ressursid/pysiyhendid/.
[6] Available at http://www.cl.ut.ee/korpused/.

the vertical and horizontal dimensions. Movement in the horizontal dimension usually requires no special effort and we can engage in it freely. Moving in the vertical dimension is affected by gravity and thus upward movement in particular is difficult for people and usually demands effort or some external help. In language this is reflected by the fact that the Estonian particles *üles* 'up' and *maha* 'down' that in their literal meaning denote direction in the vertical dimension (as, for example, in *üles tõmbama* 'pull up' or *maha panema* 'put down'), express completion and disintegration in the aspectual meaning (as, for example, in *üles leidma* 'find; hunt up; hunt out' or *maha pidama* 'deliver (a speech)'). At the same time, the particles *edasi* 'forward' and *tagasi* 'back' that in their literal meaning denote direction in the horizontal dimension (as, for example, in *edasi liikuma* 'move forward' or *tagasi hüppama* 'jump back'), express continuation or reversal in the aspectual function (as, for example, in *edasi mängima* 'to continue playing' or *tagasi valima* 're-elect').

CHAPTER 2. CORPUS ANALYSIS OF THE ASPECTUAL FUNCTIONS OF VERBAL PARTICLES *UP, DOWN, BACK* AND *FORWARD*

The central topic of this chapter is the aspectual meaning that particles *up*, *down*, *back* and *forward* can have when they occur in combination with different verbs. The aim of the corpus analysis, the results of which are presented in the following sections, is to characterize the different aspectual meanings the abovementioned particles can motivate in verb-particle combinations and to investigate whether there is a correlation between our embodied experience of motion in space and the type of aspect the directional particle can carry.

Of the following sections, 2.1 provides an overview of the language data used and research methodology employed. Section 2.2 with its subsections 2.2.1–2.2.4 describes the results of the corpus analysis particle by particle and further discusses some of the most interesting. Section 2.3 is devoted to the comparison of the particles to one another as well as to a discussion on the overall findings. This is followed by the summary in section 2.4 which reviews in condensed form the findings presented in the previous sections. All examples presented come from the British National Corpus if not noted otherwise. Some of the examples have been shortened or simplified to facilitate reading.

2.1 The data and method of analysis

To study the possible aspectual meanings of the directional particles *up*, *down*, *back* and *forward*, a corpus analysis was carried out. The analysis was modeled on the corpus analysis by Tragel and Veismann (submitted). A corpus analysis was deemed suitable for

this kind of study as, for example, Rice and Newman (2004: 316) have claimed in their study on English aspect-marking prepositions that "corpus techniques /…/ are methodologically neutral, empirically verifiable, and wide in scope as well as deep in examples" and that they are "more objective and less vulnerable to analytic oversight" (2004: 325) compared to introspective methodology. In addition, corpus queries provide data that can be used to measure the collocational strength of verb-particle combinations or the frequency with which certain particles and verbs combine (Rice and Newman 2004: 325) and this kind of data has been taken advantage of in the present thesis.

For the corpus analysis, queries with the particles *up*, *down*, *back* and *forward* were conducted. For the queries, the newspaper texts of the *British National Corpus*[7] (henceforth BNC) were used. The BNC is a 100-million-word collection of samples of written and spoken language from a wide range of sources from the period of the 1980s to 1993. Only newspaper texts were chosen for analysis to facilitate a later comparison of the results of the corpus studies in English and Estonian (Tragel and Veismann submitted) on an equal footing. Although it is difficult to say to what extent the results of the corpus analysis are effected by only newspaper texts having been used for the queries, it can be assumed that the use of vocabulary is to a certain extent more restrained or conservative in newspaper texts compared to a spoken corpus, which might have better represented everyday language use, or a corpus of texts of fiction, which might also have offered more varied language data.

As a result of the queries in the BNC, altogether 48,502 occurrences of *up*, *down*, *back* and *forward* were found in the newspaper texts, with *up* being by far the most frequent of the four particles. The distribution of the particles is shown in Table 1.

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[7] To access the corpus, the interface created by the Bringham Young University was used. It is available for use free of charge at http://corpus.byu.edu/bnc/; registration is needed to access the whole corpus.

Table 1. The number of occurrence of directional particles in the newspaper texts of the *British National Corpus*

Directional particle	*up*	*down*	*back*	*forward*
Number of occurrences	24,500	10,176	11,613	2,213

From the results of the queries, a random sample of 500 occurrences for each of the particles was retrieved and transferred into Excel. From the 500 sentences for each particle, the first 300 which contained the particles of interest functioning as members of verb-particle combinations were chosen for further analysis. Although 300 sentences for each particle (1200 altogether) might seem a small number for assumptions to be based on, the limited scope of a master's thesis does not enable more language data to be analyzed and in fact the language data analyzed ought to be sufficient for making general inferences based on it.

Whether a sentence was included into the analysis was based on whether the particles were in verb-particle combinations or not. Sentences that contained the particles functioning as prepositions not as parts of verb-particle combinations were omitted.[8] In addition, occurrences in case of which *up*, *down*, *back* and *forward* functioned as parts of idioms like *make up one's mind* or phrasal-prepositional verbs like *catch up with someone* were excluded from the analysis. As well as this, since the newspaper texts of the BNC contain a substantial number of entries pertaining to news related to changes of the stock market, a large number of sentences containing the verb-particle combination *close up* were also excluded from the analysis.[9] During the process of deciding which occurrences

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[8] For example: *The ticket provides scheduled rail/bus travel from the airport direct to your destination and **back** to the airport from anywhere in Switzerland.* In sentences like this, the particle was seen functioning as the head of a prepostional phrase rather than as a member of a verb-particle combination.

[9] These were sentences like *The hundred shares index **closed up** one point eight at thirty, thirty-nine point three.* The decision to omit those sentences was based on the reasoning that all of them had the same structure and the same meaning and since the number of sentences of such kind was quite high, including

were suitable for the present analysis, the chosen sentences were also manually tagged for the verbs the particles were in combination with to see how many different verbs collocated with each particle.

As the next step, the sentences were labeled based on which kind of function *up*, *down*, *back* and *forward* have in the verb-particle combinations. This was done in keeping with a three-way coding, according to which the particle could serve a spatial function, an aspectual function or a metaphorical function. Although deciding upon which meaning the particle prompts in the verb-particle combinations was to a large extent based on my personal interpretations and intuition, there were a few assumptions I followed. First of all, in sentences like (1a), where the verb in a verb-particle combination expressed movement, the particle in the combination was coded to express the direction of the movement. Uses similar to that in example (1b), where the verb and the particle formed a non-compositional unit (the meaning is not the sum of its components), were coded as "metaphorical/other". It should be noted that sentences where the particle was not expressing a spatial meaning or an aspectual meaning were always categorized as metaphorical, even if metaphorical extension based on a well-known orientational metaphor could not be easily detected.

1.   a) *A jury found that Mr McCaffrey had forced open the doors of the lift and squeezed through a narrow 11in gap in a bid to **jump down** to the third floor landing.*
        b) *Originally from Wearside, the Fosters are **doing up** a house in Woodland.*

When deciding on the aspectual function of the particles, I set off from the assumption that when I leave out the particle in a verb-particle combination like *open up* and the meaning of the single verb now replacing the verb-particle combination (*open*) would remain roughly the same as in the case of the combination (as can be seen in

them would have provided inaccurate final results in the sense that the high occurrence rate of *close up* would have been reflected in the statistical calculations but not the fact that it was used in very specific meaning and context only.

example sentences (2a) and (2b)) the particle carries an aspectual meaning. If the meaning of the whole verb-particle combination would be lost as a result of omitting the particle or the sentence would become ungrammatical, as is exemplified by example sentences (3a) and (3b), the particle would most probably motivate a metaphorical or other type of meaning different from aspectual because omitting the aspectual particle should result only in the aspectual meaning being lost.

2.   a) *It can **open up** new export markets.* (BNC)
         b) *It can open new export markets.* (Transformed example)

3.   a) *I don't put it any stronger than that because I have been **let down** before and I don't want to let myself go too far this time*. (BNC)
         b) **I don't put it any stronger than that because I have been **let** before and I don't want to let myself go too far this time.* (Transformed example)

However, the test of omitting the particle did not function with all the verbs in my random selection. Verbs that have been referred to as *light verbs* (Jespersen 1965), like *have*, *take*, *make* and *give* in particular could not be tested this way. Since light verbs "seem to neither retain their full semantic predicational content, nor are they semantically completely empty" (Butt 2010: 48), it is difficult to say which meaning component in a verb-particle combination is contributed by the verb and which by the particle or some other component of the sentence. In cases like this I had consult dictionaries for the semantics of the verbs and their combinations with particles and to rely on my intuition and interpretation.

Parallel to determining whether the function fulfilled by the particles was spatial, metaphorical or aspectual, I also had to decide upon the more specific functional meaning of the spatial, metaphorical and aspectual particles. In case of particles used in their spatial sense, their function was always marking direction; in case of metaphorical particles the usage was most commonly motivated by an orientational metaphor like MORE IS UP

(Lakoff, Johnson 1980) and in case of aspectual particles, the specific functional meaning referred to a type of aspect, for example completion, continuation or disintegration.

Once all the sentences for all the particles had been tagged for the verbs the particles occurred with, for the function of the particle as marker of either spatial, aspectual or metaphorical meaning and for the direction, aspect type or metaphor the particle motivated, data analysis techniques were used. I was interested in how many occurrences the particles had as markers of specific functions (spatial, aspectual, metaphorical) and specific meanings (which spatial meaning, type of aspect or metaphor) and also in how many different verbs the combinations for different functions and meanings had been formed with. Based on the number of different verbs the particles had combined with for specific functions (spatial, aspectual or metaphorical), I calculated the collocationality rates for each particle in each function. The collocationality rate indicates the approximate number of sentences per verb. For example, if *up* had 119 aspectual occurrences which were formed with 60 different verbs, the collocationality rate for *up* in the aspectual meaning was 119/60=1,98. The higher the rate is the more sentences were formed with a restricted number of verbs which shows that the combinations are more likely to be fixed phrases, used in specific contexts. The lower the rate, the higher the number of different verbs the combinations were formed with, which is a sign of relatively higher productivity and the autonomy of the particle to combine with verbs freely.

2.2 Verb-particle combinations with directional particles

The following sections 2.2.1 to 2.2.4 provide the results of the analysis of the corpus data particle by particle. The sections present the most important findings related to the aspectual meanings of *up*, *down*, *back* and *forward*. Where deemed necessary, explanations and clarifications in the form of a discussion are provided and supported by

examples from the corpus data. Types of meaning in which *up*, *down*, *back* and *forward* occurred sporadically (constituting not more than 1% of the total occurrences) have been excluded from the figures that present the types of meaning the particles occured in to facilitate reading. The complete lists of verbs the particles combined with in the aspectual meanings can be found in Appendices 1–4.

2.2.1 *Up*

Figure 2 gives an overview of the types of meaning *up* had in the verb-particle combinations analyzed. For all the types of meaning the number of occurrences in this meaning is given as well as their proportion of the 300 sentences in percentages. In case of instances where two functions appeared to occur concurrently, the one seen as the primary one is given first.

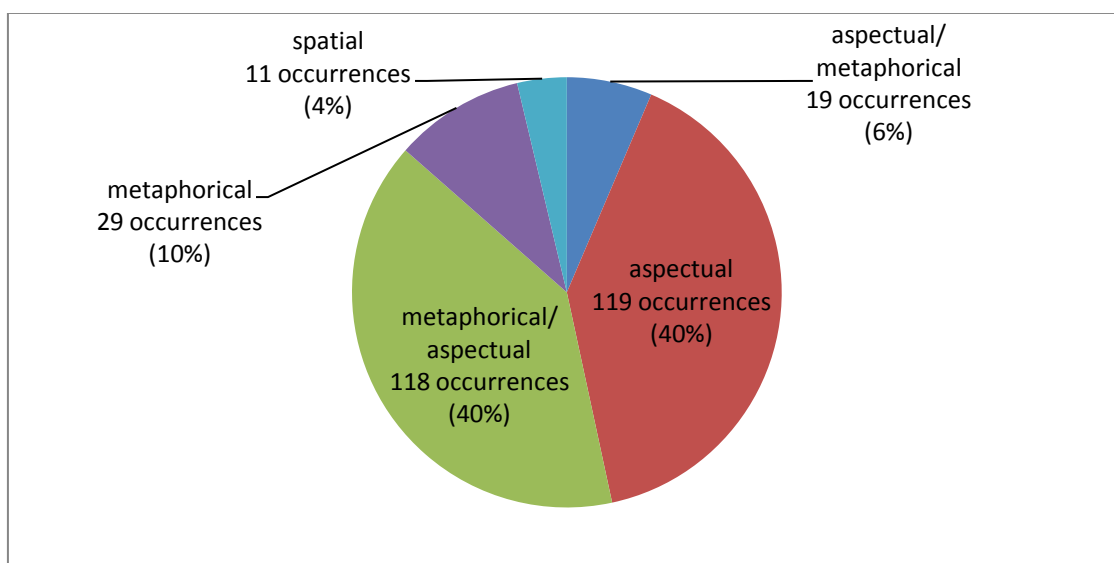**Figure 2. Types of usages with the particle *up* (number of occurrences and their proportion of all the 300 sentences in percentages)**

As can be seen in Figure 2, of the 300 sentences with the particle *up* in the corpus data, 119 indicated the use of the particle with an aspectual meaning, 29 were interpretable in terms of conceptual metaphors and 11 referred to spatial meaning. In addition, there

were altogether 137 sentences in which the particle carried a metaphorical and an aspectual meaning simultaneously, with either the aspectual meaning (19 instances) or metaphorical meaning (118 instances) seen as the primary one. For example, in the most frequent verb-particle combination with *up*, *set up*, the meaning of the particle *up* was interpreted to have a metaphorical as well as an aspectual meaning. In the aspectual meaning *up* appeared in verb-particle combinations with 60 different verbs (see Appendix 1). This results in the collocationality rate of 1.98. The most frequent verbs which combined with aspectual *up* were *open* (11 sentences), *grow* (7 sentences), *end* (6 sentences) and *beat* (5 sentences).

The 119 instances of the aspectual *up* were formed with 60 different verbs resulting in the collocationality rate of 1.98. Of the 119 sentences that had an aspectual meaning, completive aspect was identified in 114 cases and disintegrative aspect in 5 cases. *up* was analyzed to be a marker of completive aspect in sentences like (4a) and (4b) and disintegrative aspect in sentences like (5a) and (5b). Completivity and disintegration are both seen here as essentially carrying the meanings of an event´s temporal boundedness, with disintegration having the added meaning of something being completely removed or something disappearing, disintegrating[10]. The meaning of disintegration is illustrated by, for example, (5b) where as the result of being first sawed up and then chopped up, the railway sleepers as such "disappeared" and "disintegrated" into significantly smaller units useable as firewood.

4.   a) *He has no plans to **open up** his hallway for public viewing.*
      b) *The state has had to hire a private firm which imported Filipino lorry drivers to **clean up** a decade's worth of rubbish.*

5.   a) *The coroner's court heard that Private Macaulay, 20, of Mossley Hill, Liverpool, was killed along with Lance Corporal Stephen Wilson, 23, of Hull, when a mine **blew up** their Land-Rover on a deserted country road in Mayobridge.*
      b) *The able-bodied had to **saw up** old railway sleepers and then **chop up** the pieces for sale as firewood.*

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[10] As mentioned in section 1.3.2, in English, Rice and Newman (2004: 319) have previously associated this meaning of something disintegrating, disappearing or being removed, referred to as disintegration, with the particle *away*, for example in verb-particle constructions like *cut away*, *wash away*, *fade away*.

In addition to more than one third (40%) of the combinations in which the particle carried a primarily aspectual function, there was another 40% of the sentences that motivated a metaphorical/aspectual meaning, an instance of which is illustrated by example sentence (6). In example sentence (6) *set up* is used in the meaning of *establish*, in which, as already mentioned, *up* was analyzed to indicate both a metaphorical and an aspectual meaning.

6.   *I hope that when you come back, you will **set up** your own small specialist firm.*

The metaphorical meaning *up* marks in *set up* (and many other combinations with *up* in my analysis) is IN THE RANGE OF (PERCEPTUAL) ACCESS IS UP, which is based on Lindner´s (1981: 163) discussion on the meaning of *up*, where it denotes the path into the range of a viewer´s access. Lindner argues that in combinations like this, "*up* extends to code a cluster of concepts revolving around an object´s coming into some viewer´s range of perceptual or cognitive access" (1981: 163) and that it is unnecessary to make a distinction between perceptual access and cognitive access as "location in space, perceptual access, and cognitive access are closely linked in our experience" (1981: 165). Still, I would argue that in this and many other similar combinations *up* also drives a meaning of completion, which, although secondary in comparison to the metaphorical one, supplements a clearly perceivable added layer of substance.

To sum up the findings about *up* it can be said that *up* definitely presented its potential to function as an aspect marker and that based on the corpus data used here, the aspectual *up* can express completion and disintegration in verb-particle combinations.

2.2.2 *Down*

Figure 3 accounts for the types of meanings *down* motivated in combination with verbs.
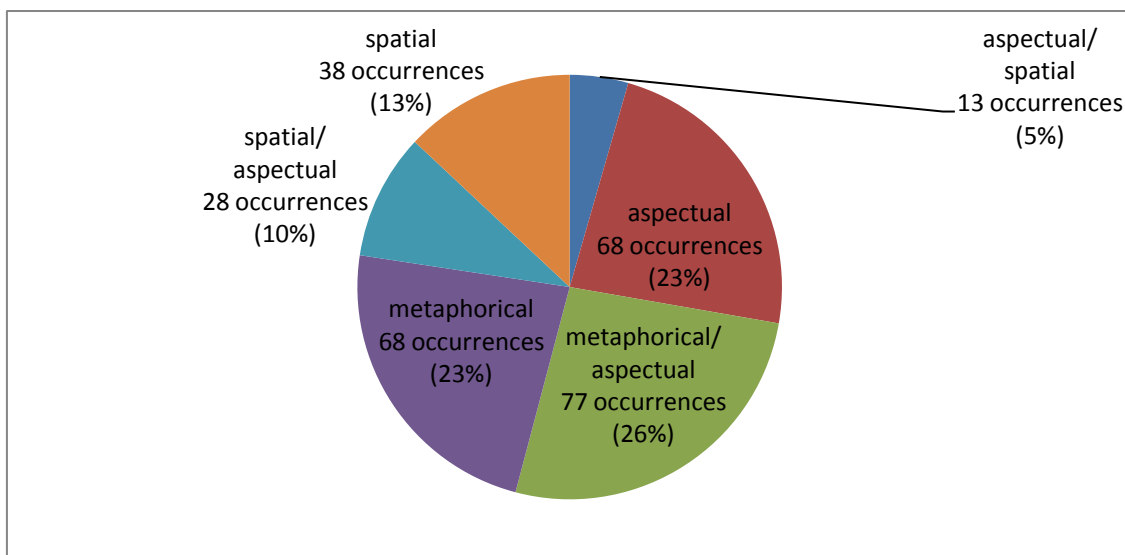

Figure 3. Types of usages with the particle *down* (number of occurrences and their proportion of all the 300 sentences in percentages)

Of the 300 occurrences of *down*, 68 were interpreted to have an aspectual meaning, another 68 to have a metaphorical meaning and 38 to have a spatial meaning. In addition, there were 28 instances of *down* with a spatial/aspectual meaning (the order of the types here being based on the primacy of one or the other) and 77 instances with a meaning that was metaphorical and aspectual at once, with the metaphorical meaning somewhat more prominent. *down* formed its 68 aspectual occurrences in combination 21 different verbs (see Appendix 2). This results in the collocationality rate of 3.24. The most frequent verbs that combined with the aspectual *down* were *break* (18 sentences), *close* (9 sentences), *settle* (6 sentences), *track* (5 sentences) and *shut* (4 sentences).

In verb-particle combinations where *down* expressed its literal, spatial meaning, the particle typically indicated the downward direction of the movement expressed by the verb

(example (7a)) or emphasized the direction of the movement inherent in the verb (example

(7b)).

7.   a) *When they got through into Lenin Square, the leadership of the republic*
__climbed down__ from their viewing podium and ran off.
b) *Both [plants] had superb, doubly dissected leaves, as elegant as the foliage of*
ferns, __hanging down__ for 2ft or so.
(compare *leaves hanging for 2ft or so*)

The 68 aspectual combinations were formed with 21 different verbs which results

in the collocationality rate of 3.24. The most frequent verbs which combined with the

aspectual *down* were *break* (18 sentences, referring to disintegration), *close* (9 sentences,

referring to completion) and *settle* (6 sentences, referring to completion). The aspectual

meanings *down* motivated were those of completion (46 instances; example (8a) and (8b))

and disintegration (22 instances; examples (9a) and (9b)), which are interpretable in the

same terms as in the case of *up*. In example sentence (8a) the addition of *down* to the single

verb *track* denotes that the local man was not only pursued but that he was also found.

down in example sentence (8b) indicates that after the soccer fans set their rivals´ stand on

fire, it disintegrated or lost its function as a stand, as a result of burning.

8.   a) *Police have also __tracked down__ a local man who gave a statement at the time.*
b) *Put your name and address on the back of a postcard (or __sealed down__ envelope)*
and send it to us.

9.   a) *In fact so much bullion was __melted down__ and dispersed after the heist that this*
Christmas many women could be given jewellery made from the haul.
b) *Soccer fans __burned down__ rivals' stand.*

In addition to the cases where *down* emphasized the direction of motion already

inherent in the verb, there were also cases where, in the aspectual use, *down* accentuated

the meaning of completion integral to the meaning of the single verb. This is exemplified

by example sentences (10a) and (10b), where the meaning of the verb *close* itself denotes

that something comes to an end and becomes even more completive with the addition of

down. The difference between the two could be that when something is *closed* (as in

(10b)), there is hope of it being opened again at one point, while when something is *closed down* (as in (10a)), it has stopped functioning permanently or at least it is not known if and when it could function again.

10. a) *The so called Sling-shot lift was **closed down** after the accident.* (BNC)
   b) *The lift was **closed** after the accident.* (Transformed example)

In conclusion to the findings concerning *down* it can be said that although less strongly than *up*, *down* can also be used with aspectual meanings of completion and disintegration. Since *up* and *down* both indicate the vertical dimension in their spatial meaning, it was expected that they would express certain types of aspectual distinctions. The following particles presented, however, *back* and *forward*, express the horizontal dimension in their spatial meaning which is why they are predicted to carry different types of aspectual meanings compared to *up* and *down*.

2.2.3 *Back*

As indicated by Figure 4, which gives an overview of the types of meaning *back* had in verb-particle combinations, *back* motivated aspectual function in 156 cases, metaphorical meaning in 53 cases and spatial meaning in 79 cases. There were very few cases where the meaning appeared to have several components. The aspectual *back* formed combinations with 54 different verbs (see Appendix 3) (collocationality rate 2.88), most frequently with *get* (17 sentences), *come* (16 sentences), *bring* (13 sentences), *fight* (11 sentences), *put* (9 sentences) and *go* (8 sentences).
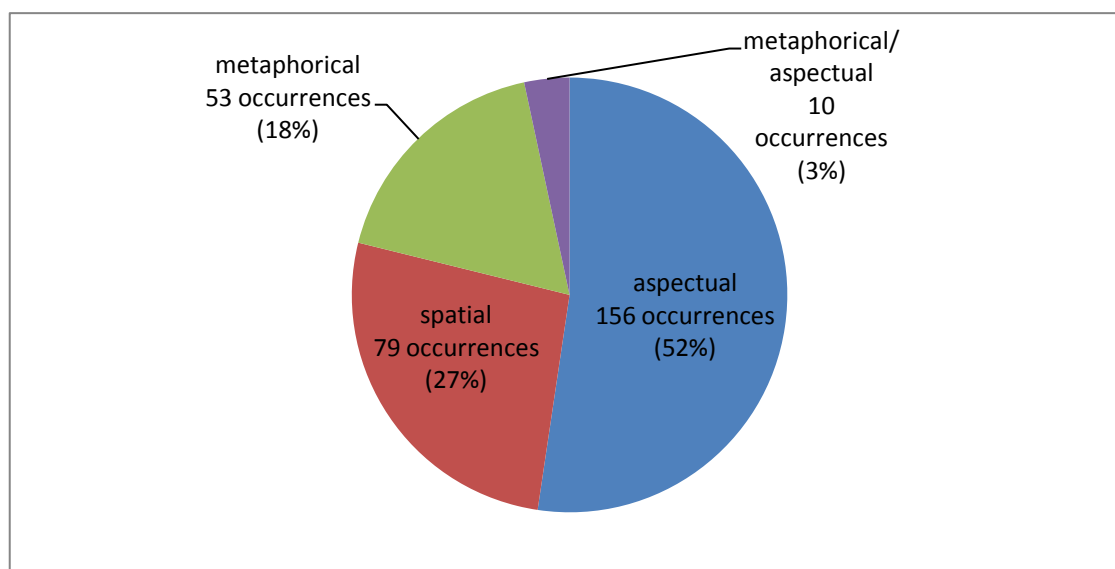
Figure 4. Types of usages with the particle *back* (number of occurrences and their proportion of all the 300 sentences in percentages)

The analysis of the corpus data indicated that when used in its spatial sense, *back* refers to motion that is directed backwards (example (11a)) or in the direction opposite to where the entity was moving previously (example (11b)).

11.   a) *He **leaned back***.
       b) *PC Hay went to investigate but **raced back** to the patrol car after receiving a call for help from Sgt Forth.*

As to the aspectual meaning that *back* can carry, Rice (1999: 244) has named *back* as one of the particles that should definitely be studied with respect to its aspectual functions. However, of the previous research relating to the aspectual usage of particles in verb-particle combinations available to the author of the present thesis, Brinton (1988) and Talmy (2000) are the only ones who have briefly commented on the aspectual meaning that *back* can motivate. Brinton (1988: 275) names *back* as one of the particles that "seldom, if ever expresses aspectual meaning". Talmy (2000: 121) does not comment on the frequency of use of the aspectual *back* but refers to the aspectual meaning of *back* as "V in reciprocation for being Ved", which he exemplifies with the example sentence *He had teased her, so she teased him back* (Talmy 2000: 121).

The corpus data under observation here also provided examples of *back* being used to express the *reciprocative* aspect. Such uses are exemplified by sentences (12a) and (12b). Consistent with Talmy´s (2000) interpretation[11] of the reciprocal *back*, in the example sentences below *back* indicates that an action has been directed at a person or a group of people who are either unable to respond with the same action as in (12a) or who do respond with the same action that was initially directed at them, as in (12b).

12.   a) *There is a lot of support for our fight because people see that the council are targeting people who can't **fight back**.*
        b) *But Darlington Tory MP Michael Fallon **hit back** saying there was no crisis and Mr Milbrun's comments were 'a slur'.*

However, in addition to Talmy´s (2000) aspectual meaning of reciprocation attributed to *back,* I would argue that *back* can motivate another aspectual meaning. This aspectual meaning of *reversal* seems to be very similar to the spatial meaning of *back* in the sense that the action is directed backwards, with the difference that there is no actual movement and "motion" backwards takes place in abstract space. This could be taken as an example of how metaphorical extension based on embodiment works. The particle that in its spatial meaning expresses the reversal of motion can also express reversal when no motion takes place because we use the mote concrete domain of motion in space to help us conceptualize the more abstract domain of how we comprehend the structure of events, actions and situations. In some cases the aspectual meaning even appears in combination with verbs that in their literal meaning express movement but not in combination with the aspectual particle. This use is exemplified by example sentences (13a) and (13b) in which *back* refers to abstract motion back to the point where the event originally set off. In (13a) it is hoped that the parties will return to a discussion or negotiation, which was left

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[11] Talmy (2000) is another one of the authors (in addition to, for example, Lindner (1981), Brinton (1988), Rice (1999)) who uses introspective methodology for his claims.

unfinished the first time and in (13b) the person wants to get back a position he once had but at one point lost.

13. a) *Sir Patrick must hope this will be enough to **bring** the parties **back** to the table, to build on the broad principles agreed last time*.
b) *Now he is intent on **winning back** that international place*.

Arguably, a clear distinction can be drawn between the reciprocative and reversative aspects that *back* can express. In case of the reciprocative aspect, the event or action includes at least two participants who either do or do not direct the same action at each other. In case of the reversative aspect the action, event or state need not have two participants (although it might) as the emphasis is on something returning to its original state or starting point. Schematically, reciprocation and reversal could be depicted as in Figure 5a and 5b.

a)   **b)**

A ⟶ B   A ⟹ (B)
  ⟵

He (A) hit me and I (B) hit him back .   I (A) want to go back there.
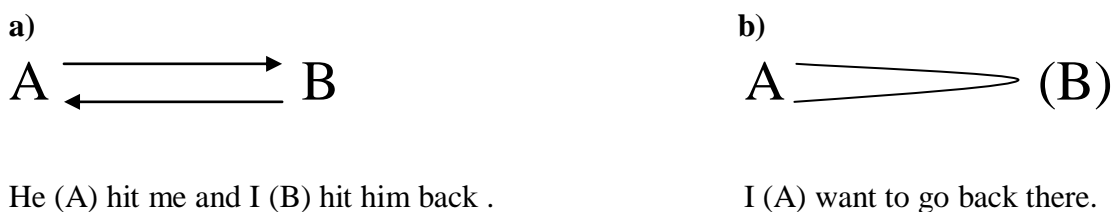
Figure 5. Schematic depiction of the reciprocal aspect (a) and reversative aspect (b)

In conclusion, findings presented in this section indicate that *back* can function as an aspect marking particle in verb-particle combinations and that it is able to express two types of aspectuality – reciprocation and reversal.

2.2.4 *Forward*

As can be seen from Figure 6, of the 300 sentence sample for *forward*, 28 instances were interpreted to have an aspectual meaning. Of these, 15 marked continuation and 13 *progression to the next stage*. In the analyzed corpus data, the particle *forward* occurred in verb-particle combinations in the aspectual meaning with 11 different verbs (see Appendix

4). This results in the collocationality rate of 2.55. The verbs that *forward* combined with most frequently in the aspectual meaning were *go* (14 sentences), *move* (3 sentences), *carry* (2 sentences), *play* (2 sentences) and *rush* (2 sentences). Besides the 28 sentences in which *forward* carried an aspectual meaning, in 201 cases the particle was interpreted to have a metaphorical meaning and in 54 cases a spatial meaning. The most frequent non-aspectual verbs that combined with *forward* were *put* and *come*, which accounted for a little more than half of all of its occurrences.
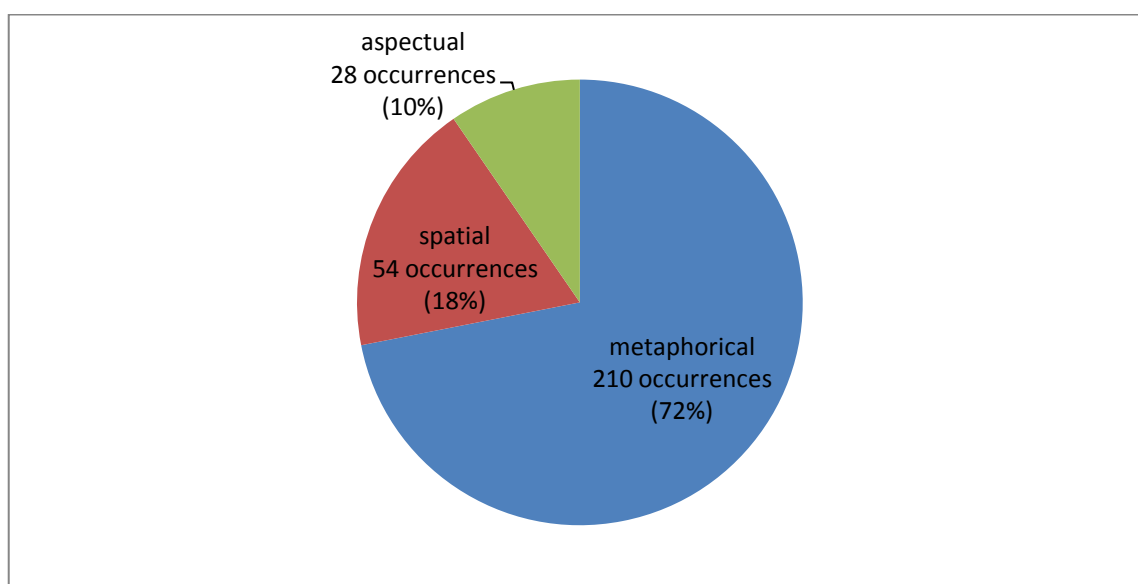
Figure 6. Types of meaning with the particle *forward* (number of occurrences and their proportion of all the 300 sentences in percentages)

Although it is not the aim of this thesis to take a closer look at the metaphorical meanings that the particles under observation can carry, it is still worth mentioning that notably, the bulk (210 sentences; 72%) of the occurrences of *forward* were interpretable in terms of conceptual metaphors (Lakoff and Johnson 1980). It is also noteworthy that 84% of those occurrences of *forward* were related to the orientational metaphor VISIBLE IS AHEAD (Lakoff and Johnson 1980) and were largely formed in combination with the verbs *put* (84 instances), *come* (70 instances) and *bring* (15 instances), the use of which is exemplified by example sentences (14a), (14b) and (14c). *Visible* is understood here to

have a meaning similar to that of "in the range of (perceptual) access", which was discussed in relation to *up*. In addition to representing things that are perceivable to us by sight, it also stands for things which we can sense with the help of our other cognitive abilities. Example sentence (14a) presents a case where having been put forward, we can "see" or access the proposal; example sentences (14b) indicates that having come forward, the witnesses are now known to us; in example sentence (14c) once the legislation is brought forward it starts existing and its implications become known to us.

14.   a) *The National Curriculum Council has **put forward** new proposals for the teaching of English in schools with an emphasis on grammar.*
b) *Two witnesses have **come forward** with information that could lead to the killer's arrest.*
c) *The Government accepted all the report recommendations and would **bring forward** legislation to strengthen the bank's powers to deal with such cases.*

However, despite the metaphorical occurrences of *forward* having accounted for 72% of all the instances of the particle, the most interesting results of the whole analysis were related to the aspectual meanings of *forward*. It was one of the hypothesis of this thesis that since no author available at the time of writing this thesis seems to have referred to the potential aspectual usage of *forward* and since English already has a morphosyntactically distinct progressive aspect marking system, *forward* would only express its literal spatial meaning or some kind of abstract metaphorical meaning and would mark no aspectual distinctions in the corpus data. However, the corpus analysis revealed that in verb-particle combinations like *move forward* and *go forward, forward* can be used to express that the action will progress (to the next stage) (example sentences (15a), (15b) and (15c)) or keep going on (example sentences (16a), (16b) and (16c)). The verbs that combined with the aspectual *forward* most frequently were motion verbs like *go, move* and *rush*.

15.   a) *A team of Essex students will soon have the chance to **go forward** to the semi-finals of a national legal debating contest.*

b) *He will also tell the island's planning committee that it [the draft] should* ***go forward*** *to public consultation and a public meeting.*
c) *The idea is that their views will* ***go forward*** *to the IRFB.*

16.　　a) *Before we* ***rush forward*** *with plans that could lay a heavy burden on societies around the globe, we must have a basic understanding of how much environmental benefit that money is buying.*
b) *We now believe it would be preferable to* ***take*** *this project* ***forward*** *as a joint venture with the private sector.*
c) *But despite all the authorities' attempts to pretend that all goes well, the birthday celebrations are* ***moving forward*** *in the shadow of a public mood of national crisis, dramatised by the tens of thousands of East Germans struggling to flee to the West in recent weeks.*

The particle omission test that was my guideline for assessing whether the particle was used as a maker of aspect or metaphorical extension did not function with *forward* (see section 2.1, pages 28–29, for a description of the particle omission test). There were very few sentences in which *forward* carried aspectual meaning that were still grammatical and meaningful after particle omission. This could be explained by the fact that *forward* is presumably still undergoing the grammaticalization process and is at a rather early stage in it where the metaphorical extension based on embodiment is still felt to some extent and the meaning of 'motion forward' and 'continuation' are still quite strongly related. The perceivable presence of the metaphor and the connection between directional meaning and aspectual meaning does not allow the particle to be left out without more meaning than the aspectual function being lost.

Since *forward* and its ability to carry aspectual meaning was one of the most interesting findings of the analysis, the aspectual meanings that *forward* can prompt deserve a closer look. The names chosen for the two types of aspectuality that *forward* appears to be able to contribute to the meaning of the whole combination are *continuation* and *progression to the next stage*. However, the precise meaning of the continuative aspect that is expressed in sentences like (16a), (16b) and (16c) seems to be more complex than the idea of "be doing" or "keep on doing" (Heine and Kuteva 2002: 19) that was suggested

in section 1.4.1. To a certain extent, the meaning of the continuative *forward* appears to be similar to that of the resumptive *on*, discussed in Rice (1999). According to Rice (1999: 236), the resumptive *on* "tends to signal a perseverance in the face of disturbance or an expectation of stopping thus conveying a more effortful or purposeful *resumptive progressivity*", meaning that continuation takes place when something is proceeded with after an interruption or halt in the course of events. Talmy (2000: 120) also discusses the meanings of the aspectual *on* and proposes as one of them "resume where one had left off in Ving", which is fully compatible with Rice´s definition.

On some occasions the continuative *forward* also seems to carry a meaning of proceeding after a pause, similar to that of the resumptive *on*, for example for the reassessment of a situation or for gathering support for something, as exemplified by example sentences (17a) and (17b). Sentence (17a) appears to suggest that before it is possible to move forward, to continue "with a positive and radical agenda," a pause should be taken for some "hard thinking". Example (17b) seems to imply that in order to be able to continue with a plan, a certain level of "verification" needs to be reached.

17. a) *We have some hard thinking to do and we must **move forward** with a positive and radical agenda.*
b) *Mr Bush accepted the Pentagon proposal even though he told the United Nations that he believed 'we can achieve the level of verification that gives us confidence to **go forward** with this ban'.*

Still, the resumptive *on* and *forward* do not always carry a similar meaning and are not interchangeable in all contexts. Although we could replace *on* with *forward* in example sentences (18a) and (18b) which are used by Rice (1999: 236) to discuss the resumptive *on*, there are other cases, like example sentence (18c), where such a substitution does not seem to work. This may come down to the kinds of verbs *on* and *forward* can combine with in the aspectual meaning. It might be that the resumptive *on* is capable of combining with more verbs and with verbs of various nature, while the aspectual *forward* did appear

in combination with a comparatively small number of different verbs that are all used to refer to motion or some other kind of physical activity (see Chapter 3, pages 59–60, in this thesis on how this is related to the level of grammaticalization of *forward*). This differentiation supports Rice´s (1999: 244) claim that particles as aspect markers in English have taken on the role of expressing "*minor* aspectual categories" which make "fine-grained aspectual distinctions", as the distinction between *on* and *forward* indeed appears to be a fine-grained one.

18.   a)   *She **drove on** looking for an exit*. (Rice 1999: 236)
             (compare *She **drove forward** looking for an exit*; transformed example)
        b)   *He´s finally **moving on***. (Rice 1999: 236)
           (compare *He´s finally **moving forward***; transformed example)[12]
        c)   He read on (despite the noise). (Rice 1999: 236)
           (compare **He read forward (despite the noise)*; transformed example)

The other aspectual meaning of *forward*, *progression to the next stage*, also deserves some consideration. Although making a distinction between the meaning of *continuation* and *progression to the next stage* when both appear to be carrying essentially the same meaning of "going on" might seem in vain, at closer study they do present an arguably subtle difference. In my opinion, this subtle difference is enough to consider *progression to the next stage* as a grammaticalized usage that could be considered aspectual. By definition, the category of aspect tells us something about the inherent (temporal) structure of an event or a situation (Comrie 1976: 3) and this is what the differentiation between *continuation* and *progression to the next stage* is about.

In general, the continuative aspect (Figure 7(a); example sentence (19)) enables us to look at an event as a single whole and usually we do not distinguish between the different stages of an event when we talk of its continuation (except in case of the meaning of the "resumptive" *forward* when there is an interruption), even when theoretically they

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[12] Here both *on* and *forward* also appear to be invoking the metaphorical meaning of PROGRESS IS FORWARD or GOOD IS FORWARD, though the aspectual meaning of continuation is indisputably primary.

could be distinguished. On Figure 7(a) the three squares stand for the stages of an event and the arrow running over them for the continuation of an event or situation without the different stages being specifically accentuated. For example, the birthday celebrations talked of in example sentence (19) probably have different stages or subevents, yet they are not foregrounded and we think of the preparations as a single whole. In case of *progression to the next stage* (Figure 7(b); example sentence (20)), however, we can as if zoom in at an event and see how the event progresses from one stage to the next. On Figure 7(b) the three squares also stand for the different stages of an event and the arced arrows for progression from one stage to the other. The arrow pointing to X signifies how the *progression to next stage* aspect expressed by *forward* allows us to highlight the phase in an event where the event progresses from one stage to the next, for example from an entry round to the final of a competition as exemplified by sentence (20).

19. *But despite all the authorities' attempts to pretend that all goes well, the birthday celebrations are **moving forward** in the shadow of a public mood of national crisis, dramatised by the tens of thousands of East Germans struggling to flee to the West in recent weeks.*

20. *From a record entry of 30 business plans, six were identified as the most promising and **went forward** to the final where they were interviewed by an experienced panel of judges.*
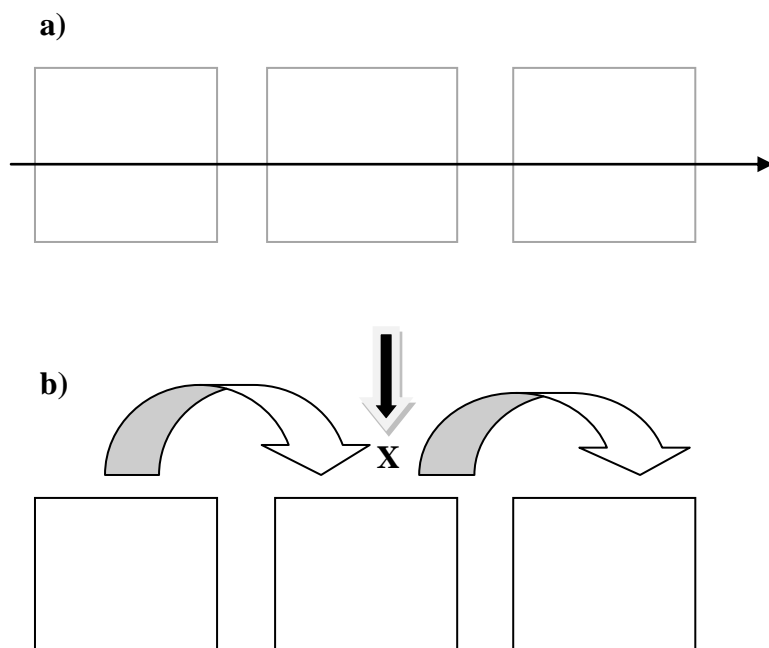
a)

b)

Figure. 7 Schematic depictions of (a) continuation and (b) progression to the next stage

To sum up the findings about *forward* it can be said that although *forward* marked aspect on only 28 occasions of the 300 sample sentences, which is significantly less compared to the other particles, discovering aspectual occurrences of *forward* in the first place is an important finding. Based on the present analysis, the aspectual distinctions that *forward* can make are continuation and progression to the next stage.

2.3 Discussion

As a continuation to the previous sections which presented the results of the corpus analysis from the perspective of the aspectuality of the particles under observation, this section provides a comparison of the particles and a further discussion on the overall findings.

Figure 8 gives an overview of how many of the 300 instances extracted from the BNC for each particle were aspectual. As can be seen from it, the particles that had the largest number of occurrences with an aspectual meaning were *back* and *up*, with 156 and

119 instances respectively. Since the aspectual meaning of *up* has been discussed by many authors (see for example Lindner 1981 as well as Brinton 1988, who in addition to her own discussion provides an extensive list of earlier works) and is thus well attested, its conspicuous occurrence in the aspectual meaning was not surprising. However, it is somewhat unexpected that *back* is the particle that motivated aspectual meaning in the largest number of cases, which is a little more than half of all the 300 sentences that contained verb-particle combinations with *back*. With the exception of brief comments by Talmy (2000) and Brinton (1988), in previous research available at the time of writing this thesis, *back* has not been discussed from the point of view of its potential aspectual meaning. Brinton (1988: 275) has even argued that *back* expresses aspectual meaning rarely, if ever. One of the reasons for this might be that the definition of aspect used in this thesis is rather broad. In addition, it might come down to the fact that Brinton (1988) did not use corpus methodology to corroborate her claims.
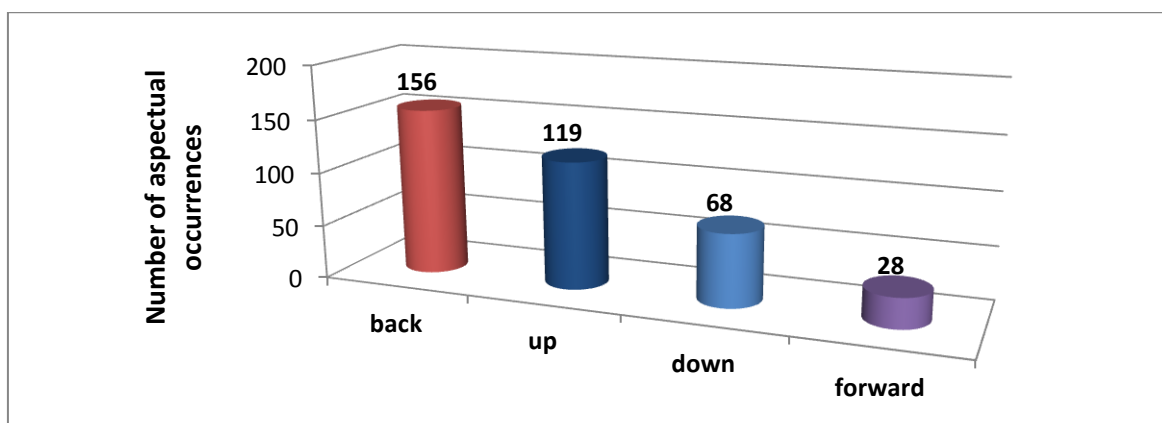
Figure 8. Number of aspectual occurrences for *up*, *down*, *back* and *forward*

Considering how many different verbs the particles formed aspectual instances with also provides interesting ground for comparison. Figure 9 shows the number of different verbs *up*, *down*, *back* and *forward* formed combinations with in the aspectual function and the collocationality rates of the particles in the aspectual function. It can be seen from Figure 9 that *up* formed its 119 aspectual occurrences with 60 different verbs, resulting in a

collocationality rate of 1.98. Although *up* did not have the highest number of aspectual instances, it did form verb-particle combinations with the highest number of different verbs as a result of which it has the smallest collocationality rate of the four particles. The smallest collocationality rate suggests that of the four, *up* is the most productive aspectual function marking particle. This means that *up* is most likely to combine with verbs freely, adding an aspectual meaning to the combination, which in turn suggests that of the four particles studied in this thesis, *up* is the most grammaticlized in the aspect marking function.
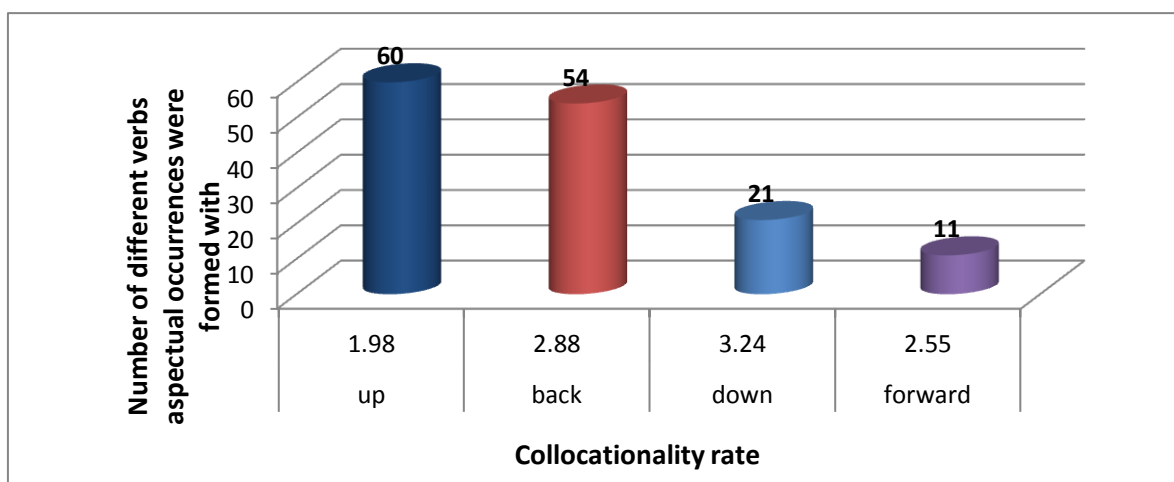
Figure 9. The number of different verbs *up*, *down*, *back* and *forward* formed combinations with in an aspectual meaning and the collocationality rates of the particles

In contrast to *up*, *forward* occurred in combination with 11 different verbs to form 28 aspectual instances. This results in a collocationality rate of 2.55, which is higher than that of *up*, yet lower than those of *down* and *back*. However, it should also be noted that while the 15 verb-particle combinations in which *forward* had the meaning of continuation were formed with 9 different verbs (collocationality rate 1.7), the 13 combinations in which *forward* had the meaning of *progression to the next stage* were formed with 2 verbs (collocationality rate 6.5). The collocationality rate of *forward* suggests that compared to *back* and *down* in particular, *forward* appears to be more productive and less prone to

appear in fixed combinations. What is more, *forward* in the continuative meaning seems to be more productive than in the *progression to the next stage* meaning.

Alongside occurrences where the particles were carrying primarily aspectual, spatial or metaphorical meanings, depending on the particular particle, there were many instances where the particles appeared to motivate more than one type of meaning at a time. Hampe (1997: 92), in her discussion on the difference between *to face* and *to face up to* comes to the conclusion that particles in verb-particle combinations are commonly characterized by more than one conceptual metaphor at a time and that the "compositional" meaning of a combination may be very complicated. Based on the results of the present thesis, this idea could be developed further. It can also be argued that not only can the meaning of a particle be motivated by various metaphors simultaneously but that it can also be characterized by a merging of metaphorical, aspectual and spatial meanings, in any number of combinations. This is exemplified by sentences (21a), (21b) and (21c).

21.   a) *As the all Blacks **touch down** at Heathrow today there is nothing but cold comfort for John Ryan, the Welsh coach, with the news of their heavy defeat of British Columbia at the Swangard Stadium here en route to their United Kingdom tour.*
b) *She **set up** the business with her husband Jeremy after receiving a 3,000 grant from the Princes Trust.*
c) *But if the Newton Cap Viaduct Protection Group had not fought so well, the elegant crossing might have been **torn down** years ago.*

In example sentence (21a), all of the three meanings distinguished in the analysis can be seen merging. *touch down* in the meaning of "land" has a clearly spatial component, which is related to the idea of an entity moving downwards from a higher location to a lower location; it has an metaphorical component in that its meaning does not equal the sum of its components and also an aspectual component of completion. Once a plane touches down, the flight has been completed. Sentence (21b) exemplifies the co-occurrence of a metaphorical meaning with an aspectual meaning. While carrying the meaning of the orientational metaphor IN THE RANGE OF (PERCEPTUAL) ACCESS IS UP (based

on Lindner 1981: 163–169), *up*, once again, also motivates the idea of completion. The co-occurrence of the metaphorical meaning and aspectual meaning functions similarly to what was explained in section 2.2.1. In the third example, (21c), *down* in *tear down* combines a spatial meaning of movement from a location on a higher ground to a location on a lower ground with the aspectual notion of disintegration as a result of which *the crossing* will disappear.

Sentences where the particle was analyzed to comprise more than one meaning component accounted for about one quarter of the 1200 sentences and although in all of these examples the aspectual meaning appears alongside other meanings, which at times can be seen as primary compared to the aspectual one, such combinations are still seen as support for the presence of aspectual meaning in verbal particles. The relatively high number of instances where the metaphorical meaning and aspectual function occurred simultaneously could be explained by the fact that even when the particles have grammaticalized into aspect markers in combination with specific verbs, these combinations can still become fixed phrases over time that may attain a meaning that is idiomatic to a certain extent. Instances where the spatial meaning and aspectual function occurred simultaneously are possibly due to the connection between the spatial meaning and the aspectual meaning, which is based on the metaphorical extension of embodiment.

2.4 Summary

The results of the corpus analysis reveal that while *back* had the highest number of aspectual occurrences, based on the collocationality rates of the particles it could be said that of the particles studied, *up* is the most productive in the aspectual meaning. Somewhat unexpectedly, *forward* also presented instances where it was used in the aspectual function, although to a noticeably lesser extent compared to the other particles.

The spatial, aspectual and metaphorical meanings of the verb-particle combinations formed with vertical dimension particles *up* and *down* and horizontal dimension particles *back* and *forward* have been summarized in Table 2. Although my aim has been to concentrate on the aspectual meanings prompted by *up*, *down*, *back* and *forward*, Table 2 also includes the spatial and metaphorical meanings related to the four particles, which, although mostly not analyzed for the purpose of this thesis, were also identified during the corpus sample coding process.

Table 3. The spatial, metaphorical and aspectual meanings of *up*, *down*, *back* and *forward*

dimension	particle	literal/spatial meaning		aspectual meaning		metaphorical meaning
VERTICAL	*up*	direction of movement for example *leap up, pull up, roll up*		**completion** for example *open up, sum up, tie up*	**disintegration** for example *chop up, blow up, break up*	MORE IS UP for example *(traffic) builds up, drive up (the price), (value) goes up*
	down	direction of movement for example *pull down, climb down, jump down*	repetition of direction inherent in the verb for example *fall down, drop down, hang down*	**completion** for example *close down, settle down, track down*	**disintegration** for example *melt down, break down, burn down*	LESS IS DOWN for example *tone down, cut down, play down*
HORIZONTAL	*back*	direction of movement for example *lean back, push back, sweep back*	reversal for example *come back, sneak back, race back*	**reversal** for example *win back, take back, allow back*	**reciprocation** for example *fight back, strike back, hit back*	PAST IS BACK for example *look back, date back, think back*
	forward	direction of movement for example *limp forward, charge forward, go forward*		**continuation** for example *move forward, carry forward, go forward*	**next stage** for example *go forward, play forward*	VISIBLE IS AHEAD for example *put forward, bring forward, come forward*

Overall it appears that the results of the corpus analysis support the claim made by Tragel and Veismann (Veismann and Tragel 2008; Tragel and Veismann submitted) that potential aspectual meanings carried by directional particles are in correlation with our embodied experience of motion in space. This is exemplified by the fact that in the aspectual meaning, particles expressing the vertical direction commonly convey completion or disintegration, which is characteristic to our motion on the up-down scale. Particles expressing the horizontal direction indicate reversal and continuation or progression to the next stage, which is distinctive to our experience moving on the forward-back scale.

CHAPTER 3. ENGLISH AND ESTONIAN DIRECTIONAL PARTICLES IN THE ASPECTUAL FUNCTION

As the corpus analysis which was presented in the previous chapter is modeled on a study by Tragel and Veismann (submitted) on the aspectual meanings of Estonian directional particles, it provides an opportunity to compare and contrast the results of the corpus analysis presented in this thesis with the results of the corpus analysis carried out by Tragel and Veismann (submitted). The comparison enables to identify any possible underlying tendencies or differences between aspectual distinctions directional particles can make in English and Estonian. While in their studies of Estonian directional particles, an overview of which was provided in section 1.2, Tragel and Veismann (Veismann and Tragel 2008; Tragel and Veismann submitted) investigated the particles *edasi* 'forward', *tagasi* 'back', *ette* 'ahead', *maha* 'down' and *üles* 'up', only *up*, *down*, *back* and *forward* are considered in the present study.

Table 4 gives an overview of the number of aspectual occurrences *up* and *üles* 'up' had, of the number of different verbs the aspectual occurrences were formed with and of the types of aspectuality the particles expressed. As can be seen from it, the Estonian corpus data included 273 sentences with *üles* 'up', of which 74 were interpreted to have an aspectual meaning. Those 74 occurrences were formed with 10 different verbs, which results in a collocationality rate of 7.4. In comparison, of the 300 sentences chosen to be analyzed for the purpose of this thesis, *up* formed verb-particle combinations in an aspectual meaning on 119 occasions (39.7% of all the occurrences with *up*) with 60 different verbs (collocationality rate 1.98).

Table 4. Comparison of *up* and *üles* 'up'

Particle	Analyzed sentences in total	Number of aspectual occurrences (and their proportion of sentences in total)	Number of different verbs aspectual occurrences were formed with; collocationality rate (r)	Type of aspectuality
up	300	119 (39.7%)	60 r= 1.98	completion, disintegration
üles 'up'	273	74 (27.1%)	10 r= 7.4	completion

The data presented in Table 4 indicates that *up* in the aspectual use was noticeably more frequent in the corpus sample of English than *üles* 'up' in Estonian. What is more, while the verb-particle combinations formed with the aspectual *üles* 'up' were formed with 10 verbs only, which resulted in the highest collocationality rate (7.4) among the aspectual uses of the Estonian particles, in English the aspectual *up* formed combinations with 60 different verbs and produced a considerably lower collocationality rate (1.98), which was in fact the lowest for the aspectual usages of the English particles. It can be concluded from this that in the aspectual use, *up* appears to be more collocational in Estonian and notably less fixed and more productive in English. Based on the two studies presented here it can be said that the relatively high collocationality rate of *üles* 'up' compared to *up* gives reason to assume that *up* as a maker of aspect in verb-particle combinations is more grammaticalized in English than *üles* 'up' in Estonian.

However, the aspectual meanings that *up* could carry in verb-particle combinations both in English and Estonian appear to be similar. According to Tragel and Veismann (submitted), in Estonian the aspectual *üles* 'up' expresses completion. This is exemplified by Estonian verb-particle combinations like *üles otsima* 'look up; find', *üles tunnistama* 'confess; admit' and *üles leidma* 'hunt up; find'. The meaning of completion was also one of the two aspectual distinctions that *up* made in the English corpus data (see examples (4a) and (4b) on page 32). However, the English *up* occasionally also expressed

disintegration (see examples (5a) and (5b) on page 32), which was not identified by Tragel and Veismann as one of the aspectual meanings carried by *üles* 'up'. The meaning of disintegration is closely related to the meaning of completion as both of them express an event´s or a situation´s temporal boundedness and as it can even be said that disintegration has an inherent meaning component of completion. For example it could be said that when a railway sleeper is *chopped up*, *up* represents the disappearance of the sleeper but also the completion of the act of chopping. Thus, the fact that both completion and disintegration portray inherent perfectiveness indicates that disintegration is very much compatible with the aspectual meanings the particles in the vertical dimensions could be expected to express, as is also evidenced by *down* and *maha* 'down'.

maha 'down' was the second particle investigated by Tragel and Veismann (Veismann and Tragel 2008; Tragel and Veismann submitted). It had an aspectual meaning in 118 sentences of the 300 total occurrences. Table 5 reveals that the aspectual *maha* 'down' formed verb-particle combinations with 24 different verbs resulting in a collocationality rate of 4.92. In the English corpus data *down* carried aspectual meaning in 68 sentences, in combination with 21 different verbs (collocationality rate 3.24). It is apparent from this that the Estonian *maha* 'down' had an aspectual meaning significantly more often than the English *down*. However, the aspectual *down* in English is arguably less collocational than the Estonian *maha* 'down' as the collocationality rate of *maha* 'down' (4.92) is higher than that of *down* (3.24). Still, both *maha* 'down' and *down* had high collocationality rates compared to the other particles in the respective languages, with the collocationality rate of *down* being the highest of all the English particles examined here.

Table 5. Comparison of *down* and *maha* 'down'

Particle	Analyzed sentences in total	Number of aspectual occurrences (and their proportion of sentences in total)	Number of different verbs aspectual occurrences were formed with; collocationality rate (r)	Types of aspectuality
down	300	68 (22.7%)	21 r= 3.24	completion, disintegration
maha 'down'	300	118 (39.3%)	24 r= 4.92	completion, disintegration

Based on the embodiment hypothesis, it would be expected that *up* and *down* and *üles* 'up' and *maha* 'down', which express vertical direction, would carry similar aspectual meanings. This view is supported by the data. In Tragel and Veismann (Veismann and Tragel 2008; Tragel and Veismann submitted) the aspectual *maha* 'down' marked completion in verb-particle combinations like *maha pidama* 'deliver (a speech)', *maha hüüdma* 'announce' and disintegration in verb-particle constructins like *maha põlema* 'burn down'. Similarly to *up* and the Estonian *maha* 'down', in the English data *down* also denoted completion (see example sentences (8a) and (8b) on page 35) and disintegration (see example sentences (9a) and (9b) on page 35). What is interesting, though, is that while Tragel and Veismann (Veismann and Tragel 2008; Tragel and Veismann submitted) summed up their findings about *üles* 'up' and *maha* 'down' by suggesting that *üles* 'up' as a maker of completion is less frequent and more restricted than the use of *maha* 'down', the exact opposite could be said about the English *up* and *down*. While *up* presented the second highest number of aspectual occurrences and the lowest collocationality rate, *down* had the second smallest number of aspectual instances and the highest collocationality rate among the English directional particles.

The next particles compared are *tagasi* 'back' and *back*. As can be seen from Table 6, in the Estonian corpus data *tagasi* 'back' carried an aspectual meaning in 133 verb-particle combinations which were formed with 32 different verbs (collocationality rate

4.16). *tagasi* 'back' was the particle that had the highest number of aspectual occurrences. In English *back* also presented the most aspectual instances compared to the other particles. *back* had an aspectual meaning in 156 sentences in which it formed verb-particle combinations with 54 verbs (collocationality rate 2.88). As was the case with *up* and *üles* 'up', the aspectual occurrences of the English *back* were more frequent than those of the Estonian *tagasi* 'back'. However, the collocationality rate of both *back* and *tagasi* 'back' was relatively high compared to the other particles, which suggests that although they occur more frequently than the other particles, *back* and *tagasi* 'back' are more prone to appear in fixed expressions even in the aspectual meaning.

Table 6. Comparison of *back* and *tagasi* 'backward'

Particle	Analyzed sentences in total	Number of aspectual occurrences (and their proportion of sentences in total)	Number of different verbs aspectual occurrences were formed with; collocationality rate (r)	Type of aspectuality
back	300	156 (52%)	54 r= 2.88	reversal, reciprocation
tagasi 'backward'	300	133 (44.3%)	32 r= 4.16	reversal

The aspectual meaning Tragel and Veismann (Veismann and Tragel 2008; Tragel and Veismann submitted) attributed to *tagasi* 'back' was reversal. This meaning can be seen in Estonian verb-particle combinations like *tagasi saama* 'get back' and *tagasi võtma* 'take back'. In the English corpus data *back* also carried the aspectual meaning of reversal (see example sentences (13a) and (13b) on page 39). However, the English corpus data also presented instances where *back* functioned as the marker of reciprocative aspect (see example sentences (12a) and (12b) on page 38), while in their discussion of *tagasi* 'back' Tragel and Veismann (Veismann and Tragel 2008; Tragel and Veismann submitted) do not refer to the reciprocative aspect. It is difficult to hypothesize why Tragel and Veismann (submitted) do not talk of the reciprocal *tagasi* 'back'. It is possible that in Estonian,

another word is used for the same function that the reciprocal *back* has in English but it is also possible that this use has been missed while analyzing the Estonian corpus data for *tagasi* 'back'. To be able to make any justifiable claims, the corpus data of Tragel and Veismann (submitted) should be re-examined.

The last particles compared are *forward* and *edasi* 'forward'. Table 7 indicates that the Estonian *edasi* 'forward' had an aspectual meaning in 109 sentences in which it combined with 55 different verbs (collocationality rate 1.98).

Table 7. Comparison of *forward* and *edasi* 'forward'

Particle	Analyzed sentences in total	Number of aspectual occurrences (and their proportion of sentences in total)	Number of different verbs aspectual occurrences were formed with; collocationality rate (r)	Type of aspectuality
forward	300	28 (9.3%)	11 r= 2.55	continuation, progression to the next stage
edasi 'forward'	300	109 (36.1%)	55 r= 1.98	continuation

In contrast, the English *forward* combined with 11 different verbs to form verb-particle combinations in which it carried an aspectual meaning in 28 sentences (collocationality rate 2.55). This indicates that the Estonian *edasi* 'forward' in aspectual meaning was almost four times more frequent than the English *forward*. Based on the collocationality rate of the Estonian *edasi* 'forward' in the corpus data, Tragel and Veismann (submitted) concluded that *edasi* 'forward' was the most productive aspect marker of the particles they considered. Although that cannot be said about the English *forward,* it is noteworthy that the collocationality rate of *forward* is not much higher than that of *edasi* 'forward' and despite providing the smallest number of aspectual occurrences among the English directional particles, it has the second smallest collocationality rate after *up*.

The comparison of *edasi* 'forward' and *forward* implies that *forward* is less grammaticalized than *edasi* 'forward' but that *forward* is likely to be still undergoing the earlier stages of the grammaticalization process. This is supported by the fact that the aspectual *forward* appeared in combination with a comparatively small number of different verbs that are all used to refer to motion or some other kind of physical activity. However, the comparatively small collocationality rate of *forward* (compared to the other English particles investigated as well as the Estonian ones) suggests that *forward* can combine with (motion) verbs relatively freely in its non-spatial use and it could be seen as indication of the capacity of *forward* to grammaticalize further and combine with new verbs in the future.

As to the types of aspectuality *edasi* 'forward' expressed, Tragel and Veismann (Veismann and Tragel 2008; Tragel and Veismann submitted) found that *edasi* 'forward' primarily referred to continuation. This meaning can be detected in Estonian verb-particle combinations like *edasi elama* 'live on; keep on living' and *edasi töötama* 'continue working'. Although much less frequently, the English *forward* also had continuative meaning (see example sentences (16a), (16b) and (16c) on page 42) as well the meaning of progression to the next stage of a situation or action (see example sentence (15a), (15b) and (15c) on pages 41). It should also be noted that while the corpus data analyzed by Tragel and Veismann (Veismann and Tragel 2008; Tragel and Veismann submitted) contained verb-particle combinations in which *edasi* 'forward' combined with many different types of verbs (compare, for example, *elama* 'live', *töötama* 'work', *minema* 'go'), in the corpus data analyzed for the purpose of this thesis, *forward* formed verb-particle combinations only with motion verbs and verbs that express explicit physical activity.

forward having not yet grammaticalized to its full potential as an aspect marker could be the reasons why its occurrences in the aspectual meaning are so few and far between and why there is a lack of literature on the aspectual *forward.* Support for this account can be found in Rice and Newman (2004: 316) who argue that corpus techniques are best for detecting "incipient grammaticalization", whereas introspective methods, which have so far been used by most authors available to the author of this thesis (among others Talmy 2000, Rice 1999, Brinton 1988) who have written on the topic, might cause some less prevailing patterns and instances to be missed.

The aspectual occurrences and related collocationality rates of *up*, *down*, *back* and *forward* and *üles* 'up'*, maha* 'down'*, tagasi* 'back' and *edasi* 'forward' have been summarized in Figure 10 (see Appendix 5 for a table that presents how the occurrences of all the particles were divided by meaning type, how many verbs they were combined with and what the collocationality rates were).
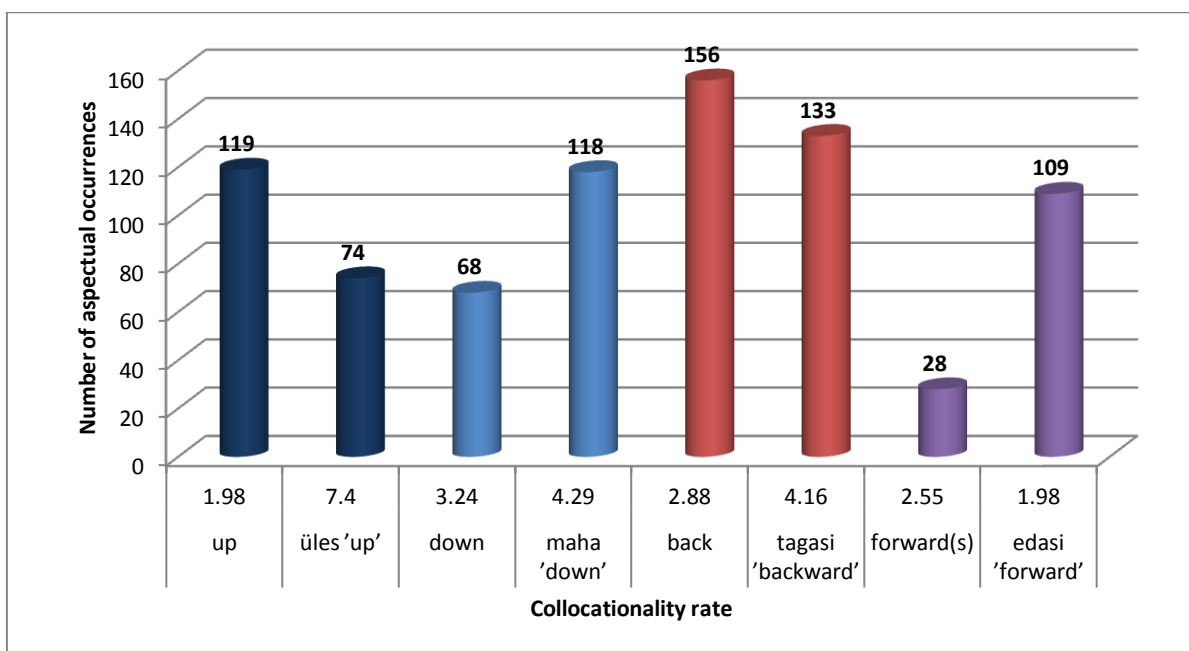
Figure 10. The number of aspectual occurrences and collocationality rates of *up* and *üles* 'up', *down* and *maha* 'down', *back* and *tagasi* 'back', *forward* and *edasi* 'forward'

It can be seen in Figure 10 that while *back* and *tagasi* 'back' have the highest number of aspectual instances, *up* in English and *edasi* 'forward' in Estonian are the most

productive particles in their aspectual meaning. All in all, it can be stated that although some of the results of the comparisons indicate variance in the number of occurrences and collocationality rates between the English and Estonian particles, it can be argued that both in English and Estonian, the aspectual distinctions that the particles make appear to follow certain tendencies deriving from our embodied experience.

CONCLUSION

In the present thesis I have analyzed the aspectual meanings that English directional particles *up*, *down*, *back* and *forward* can contribute to the meaning of verb-particle combinations, from the perspective of the embodiment theory, which constitutes one of the basic assumptions in cognitive linguistics. In addition, I have tried to verify the claim made by Tragel and Veismann (Veismann and Tragel 2008; Tragel and Veismann submitted) that there appears to be a correlation between our embodied experience of motion in space (the direction the particle expresses in its spatial meaning) and the type of aspect it may attain through grammaticalization in verb-particle combinations.

Chapter 1 introduced the theoretical framework of the thesis. It gave an overview of the research by Tragel and Veismann (Veismann and Tragel 2008; Tragel and Veismann submitted), which the present thesis is modeled on. In addition, it presented research done in the field in which, however, corpus methodologies and the embodiment theory have been insufficiently used. Chapter 1 also provided definitions of the linguistic notions like aspect, various aspectual distinctions, grammaticalization and outlined the role of metaphorical mapping and embodiment in the grammaticalization of aspect markers.

Chapter 2 was devoted to the empirical part of the thesis and it consisted mostly of the presentations of the results of the corpus analysis, which was conducted in order to study the potential aspectual meanings of *up*, *down*, *back* and *forward*. Although a corpus analysis provides relatively objective language data, in this case, the semantic coding of it was still subjective and very much based on my personal interpretations and intuition. This was also one of the biggest challenges I faced writing this thesis, not least because English is not my mother tongue, which makes an in depth analysis of functional meaning

somewhat more complicated. Although there were basic assumptions I could follow, they did not apply everywhere and language data are never black and white. However, taking up this challenge is at the same time what made studying this topic exciting and rewarding.

The findings of the corpus analysis revealed that all of the four particles can attain aspectual meaning in verb-particle combinations, although to a different extent. Somewhat unexpectedly, *back* was found to have the highest number of aspectual occurrences. Still, *up* was found to have the lowest collocationality rate which suggests that *up* is the most productive particle of the four in the aspectual meaning and that in the aspectual meaning up is able to combine with verbs more freely than the other particles studied. Although it was one of the hypothesis of this thesis that *forward* would not be found to present aspectual occurrences, the particle *forward* did occur in the aspectual meaning. Yet, it had a significantly lower number of aspectual instances compared to the other particles studied.

Based on the corpus analysis, *up* and *down* were found to mark the aspectual meanings of completion and disintegration, *back* and *forward* reversal, reciprocation and continuation or progression. The aspectual meanings that the particles carried provides support for the claim that metaphorical extension based on our embodied experience can be seen as part of the explanation for why directional particles of the vertical dimension grammaticalize to mark completion and disintegration while particles of the horizontal dimensions grammaticalize to mark continuation, reversal and reciprocation. Our experience of motion on the vertical axis is characterized by difficulty of moving upwards or downwards without any external help and the fact that it cannot last, while motion on the horizontal axis can go unhindered for as long as we wish (unless there is an external obstacle) and it can also change and turn.

In Chapter 3 the results of the corpus analysis which were presented in Chapter 2 were compared and contrasted with the results of the corpus analysis carried out by Tragel

and Veismann (submitted) about Estonian. To sum up the results of the cross-linguistic comparison it can be said that although there was variance in the number of occurrences and collocationality rates between the English and Estonian particles, the aspectual distinctions that the particles are able to make both in English and Estonian follow certain similar tendencies which appear to be in correlation with our embodied experience. The similar results of the English and Estonian corpus analyses support the view that there could be a cross-linguistic basis for directional particles grammaticalizing to potential aspect markers in verb-particle combinations, which support the fist hypothesis of this thesis, outlined in the introduction.

Albeit the findings of this thesis support the view that our embodied experience can be seen as the basis for the aspectual meanings directional particles can mark in verb-particle combinations, extensive further research and evidence is needed before this hypothesis can be named a "universal" tendency. What is more, further research on *forward* is necessary to better comprehend its nature and full scope of behavior as a potential aspect marker, especially because *forward* seems to be in the early stages of the grammaticalization process. A larger corpus study that would concentrate on *forward* alone could give a better understanding of *forward* as an aspect marker and either corroborate or confute the claims made in this thesis. In addition, corpus studies including all the particles, using different corpora could be suggested for further research on the topic. For example, a corpus consisting of new media texts, reflecting language use similar to that of spoken language in which changes manifest earlier than in written language, could yield examples of the studied particles in more varied combinations, while the *The Helsinki Corpus of English Texts*[13] could be used to look at the grammaticalization of the aspect marking particles from a diachronic perspective.

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[13] Available at http://www.helsinki.fi/varieng/CoRD/corpora/HelsinkiCorpus/.

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APPENDIX 1. Verbs in verb-particle combinations with *up* in the

aspectual function

(The verb have been presented in alphabetical order; the number behind the verb indicates the number of occurrences; the highest occurring verbs have been marked in bold)

add	1		liven	1
back	1		lock	2
beat	**5**		loosen	2
blow	3		make	1
build	**4**		meet	1
call	1		mix	1
chop	1		mop	2
clean	**4**		nestle	1
clear	1		notch	2
clock	2		**open**	**11**
clog	2		order	1
conjure	1		pay	2
cover	2		psych	1
crack	1		read	1
dig	1		ring	2
dish	1		saddle	1
divide	1		**snap**	**4**
dress	1		soften	1
dry	2		square	1
end	**6**		start	2
fill	3		sum	3
finish	1		take	1
fire	3		team	3
fold	1		tie	3
groove	1		tighten	2
gross	1		trip	1
grow	**7**		tuck	1
hush	1		use	1
hype	1		wrap	1
join	3			

APPENDIX 2. Verbs in verb-particle combinations with *down* in

the aspectual function

(The verb have been presented in alphabetical order; the number behind the verb indicates the number of occurrences; the highest occurring verbs have been marked in bold)

bear	1
bed	1
break	**18**
brush	1
burn	3
calm	2
close	**9**
damp	1
dust	1
gun	3
hunt	2
melt	1
seal	1
settle	**6**
shoot	3
shut	**4**
strike	2
tie	1
track	**5**
travel	1
wash	2

APPENDIX 3. Verbs in verb-particle combinations with *back* in the

aspectual function

(The verb have been presented in alphabetical order; the number behind the verb indicates the number of occurrences; the highest occurring verbs have been marked in bold)

allow	1		head	1
battle	2		**hit**	**7**
bring	**13**		lure	2
buy	1		offer	1
call	1		pay	3
change	2		place	1
claim	3		plunge	1
clamber	1		propel	1
claw	2		pull	2
climbe	1		push	1
clip	1		**put**	**9**
come	**16**		revert	1
cut	1		sell	1
demand	1		send	1
drift	1		sew	1
drive	1		shout	1
echo	1		slip	1
elevate	1		snatch	1
fight	**11**		strike	1
fire	1		take	2
flood	1		trim	1
get	**17**		turn	1
give	2		want	4
go	**8**		welcome	2
hand	3		**win**	**7**
haul	3		write	4
have	2			

APPENDIX 4. Verbs in verb-particle combinations with *forward* in the aspectual function

(The verb have been presented in alphabetical order; the number behind the verb indicates the number of occurrences; the highest occurring verbs have been marked in bold)

carry	2
drive	1
flow	1
forge	1
go	**14**
move	**3**
play	2
push	1
rush	2
take	1

APPENDIX 5. Comparative data summary

Particle	Sentences in total	Number of different verbs	Number of aspectual occurrences (their proportion of sentences in total)	Number of different verbs in the aspectual usage (colloc. rate)	Number of spatial occurrences	Number of different verbs in the spatial usage (colloc. rate)	Number of metaphorical and combined occurrences	Number of different verbs in the metaphorical usage
up	300	107	**119 (39.7%)**	**60 r=1.98**	11	10 r=1.1	170	60 r=2.22
üles 'up'	273	43	**74 (27.1%)**	**10 r=7.4**	43	13 r=3.3	165	23 r=7.2
down	300	87	**68 (22.7%)**	**21 r= 3.24**	38	22 r=1.73	194	85 r=2.28
maha 'down'	300	67	**118 (39.3%)**	**24 r=4.92**	42	21 r=2	140	24 r=5.8
back	300	83	**156 (52%)**	**54 r=2.88**	79	27 r=2.93	65	25 r=6.12
tagasi 'backward'	300	62	**133 (44.3%)**	**32 r= 4.16**	106	28 r=3.8	61	16 r=3.8
forward	300	46	**28 (9.3%)**	**11 r=2.55**	54	36 r=1.5	218	29 r=7.5
edasi 'forward'	300	83	**109 (36.1%)**	**55 r=1.98**	14	8 r=1.75	179	26 r=6.9

RESÜMEE

TARTU ÜLIKOOL
INGLISE FILOLOOGIA OSAKOND

Tene Viiburg
English directional particles *up*, *down*, *back* and *forward* as aspect markers [Inglise keele suunda väljendavad apartiklid *up* 'üles', *down* 'maha', *back* 'tagasi' ja *forward* 'edasi' aspekti markeritena]
Magistritöö
2014
Lehekülgede arv: 72

Annotatsioon:
Käesoleva magistritöö eesmärk on kirjeldada inglise keele suunda väljendavate partiklite *up* 'üles', *down* 'maha', *back* 'tagasi' ja *forward* 'edasi' aspektitähendusi ühendverbides, kasutades selleks korpusanalüüsi. Suunda väljendavate partiklite aspektitähenduste uurimine võimaldab otsida kinnitust väitele, et kehastatud kogemusel põhinev metafoorne ülekanne on aluseks horisontaalsuuna partiklite grammatiseerumisel teatud liiki aspekti markeriteks ja vertikaalsuuna partiklite grammatiseerumisel teist liiki aspekti markeriteks (Veismann ja Tragel 2008; Tragel ja Veismann avaldamiseks esitatud).

Magistritöös on kolm peatükki. Esimene peatükk annab lühikese ülevaate töö teoreetilisest taustast, milleks on kognitiivne lingvistika, täpsemalt üks selle haru − kehastatuse teooria. Lisaks antakse selles peatükis ülevaade varasematest uurimustest antud teemal, nii eesti- kui inglise keeles, ning mõistetest, mis antud magistritöö kontekstis olulised on, näiteks aspekt, eri aspektiliigid, grammatiseerumine ning metafoorse ülekande ja kehalisuse roll grammatiseerumisel.

Magistritöö teine osa on empiiriline. Selles kirjeldatakse andmete kogumist ja analüüsi meetodit ning esitatakse korpusanalüüsi tulemused partiklite kaupa. Viimases osas esitatakse inglise ja eesti keele vastavate partiklite võrdlus. Analüüsitud laused on pärit Briti rahvusliku korpuse (*British National Corpus*) ajalehetekstide hulgast, millest võtsin juhuslikkuse alusel välja 300 lauset iga uuritava partikli kohta. Analüüsi võtsin ainult need laused, kus partiklid esinesid ühendverbi koosseisus. Laused märgendasin selle alusel, millise verbiga partikkel esines, milline funktsioon partiklil selles ühendverbis oli (kas ruumiline, aspektiline või metafoorne) ning milline oli partikli spetsiifiline funktsioon (ruumitähendus, aspektiliik või mõistemetafoor).

Töö kolmas peatükk on pühendatud käesoleva magistritöö tarbeks läbi viidud korpusuuringu tulemuste võrdlemisele Trageli ja Veismanni (avaldamiseks esitatud) korpusuuringu tulemustega eesti keele vastavate partiklite kohta. Keeltevaheline võrdlus võimaldab teha järeldusi selle kohta, kas süstemaatiline korrelatsioon partikli ruumisuuna ja aspektiliigi vahel, mida ta ühendverbis väljendada võib, võiks kehtida ka inglise keeles ja kas tegemist võib olla universaalse tendentsiga.

Korpusanalüüsi tulemusena selgus, et kõik neli uuritud inglise keele partiklit võivad ühendverbis aspektitähendust kanda. Kõige sagedamini oli aspektilises funktsioonis kasutusel *back* 'tagasi' ja kõige harvem *forward* 'edasi'. *forward* 'edasi' esinemine aspekti markerina oli huvitav avastus, kuna varasemas teemat puudutavas kirjanduses teadaolevalt *forward* 'edasi' aspektitähendust ei kajastatud ei ole. Aspektitähenduses kõige produktiivsemaks partikliks osutus *up* 'üles', mis esines ka kõige suurema hulga eri

verbidega. Mida rohkemate eri verbidega partikkel aspektitähenduses ühendeid moodustas, seda suurema tõenäosusega võib ta tulevikus järjest uute verbidega aspektilises tähenduses kombineeruda ja niisiis edasi grammatiseeruda.

Aspektiliikidest väljendasid horisontaalsuuna partiklid ootuspäraselt kas jätkumist ja edasiminekut järgmisesse faasi (*forward* 'edasi'), tegevuse vastupidiseks muut(u)mist või retsiprooksust (*back* 'tagasi'). Vertikaalsuuna partiklid seevastu esinesid aspektitähenduses kas lõpetatuse või disintegratsiooni markeritena (*up* 'üles' ja *down* 'maha'). Need tulemused on kooskõlas sellega, et meie kehastatud kogemus ja abstraktne mõistestamine on seotud. Inimesed tajuvad horisontaalteljel ja vertikaalteljel liikumist erinevalt ja see avaldub ka keeles.

Inglise ja eesti keele võrdluse tulemusel selgus, et kuigi esines erinevusi selles, kui tihti vastavad partiklid neis keeltes aspektilises tähenduses esinesid või kui mitme eri verbiga aspektilises tähenduses ühendverbe moodustasid, väljendasid samatähenduslikud partiklid mõlemas keeles enam-vähem samu aspektiliike. Ruumilises kasutuses vertikaalsuunda väljendavad *up* 'üles', *down* 'alla', *üles* ja *maha* võivad mõlemas keeles ühendverbides väljendada lõpetatuse või disintegratsiooni aspekti. Ruumilises kasutuses horisontaalsuunda väljendavad *back* 'tagasi', *forward* 'edasi', *tagasi* ja *edasi* võivad mõlemas keeles kanda ühendverbides jätkumise aspekti või reversatiivset aspekti. Kuigi samatähenduslike partiklite aspektitähendustes oli partiklite vahel ka väikeseid erinevusi, toetasid inglise ja eesti keele võrdluse tulemused väidet, et meie kehaline kogemus on kooskõlas sellega, kuidas me sündmuste ja olukordade sisemist (ajalist) struktuuri (ehk aspekti) tajume ja seda keeles väljendame.

Märksõnad: inglise keel, kognitiivne lingvistika, aspekt, ühendverb, kehastatuse teooria, grammatiseerumine, verbipartiklid

Lihtlitsents lõputöö reprodutseerimiseks ja lõputöö üldsusele kättesaadavaks tegemiseks

Mina, Tene Viiburg, (isikukood: 48907192743)

1. annan Tartu Ülikoolile tasuta loa (lihtlitsentsi) enda loodud teose

English directional particles *up*, *down*, *back* and *forward(s)* as aspect markers

mille juhendajad on Ilona Tragel ja Reeli Torn-Leesik,

1.1. reprodutseerimiseks säilitamise ja üldsusele kättesaadavaks tegemise eesmärgil, sealhulgas digitaalarhiivi DSpace-is lisamise eesmärgil kuni autoriõiguse kehtivuse tähtaja lõppemiseni;
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3. kinnitan, et lihtlitsentsi andmisega ei rikuta teiste isikute intellektuaalomandi ega isikuandmete kaitse seadusest tulenevaid õigusi.

Tartus 16. mai 2014

Tene Viiburg