

Doktori (PhD) értekezés

**CONTRIBUTIONS TO A SEMANTICO-CONTRASTIVE ANALYSIS  
OF VERB PARTICLE CONSTRUCTIONS IN ENGLISH AND VERBS  
WITH COVERBS IN HUNGARIAN**

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# **Contributions to a Semantico-Contrastive Analysis of Verb Particle Constructions in English and Verbs with Coverbs in Hungarian**

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## CONTENTS

<b>ACKNOWLEDGEMENTS.....</b>	<b>vi</b>
<b>ABSTRACT .....</b>	<b>vii</b>
<b>1. INTRODUCTION .....</b>	<b>1</b>
<b>2. OVERVIEW OF PHRASAL VERBS .....</b>	<b>6</b>
2.1 Problems with the traditional approach.....	6
2.2 Defining phrasal verbs in the linguistic literature .....	9
2.3 The treatment of phrasal verbs by Modern English dictionaries and grammar books.....	19
2.4 The various stages of the development of phrasal verbs.....	24
2.4.1 <i>Some notes about phrasal verbs in Old English</i> .....	24
2.4.2 <i>The introduction of phrasal verbs in Middle English as a productive form</i>	25
2.4.3 <i>Phrasal verbs in Present-Day English</i> .....	26
2.5 Some syntactic tests for phrasal verbs.....	27
<b>3. THE SEMANTICS OF VERB PARTICLE COMBINATIONS AS REFLECTED IN SYNTAX .....</b>	<b>34</b>
3.1 Some notes on terminology.....	34
3.2 Transparent vs. idiomatic verb particle constructions.....	37
3.3 Classifications of verb particle constructions.....	40
3.4 Cross-linguistic studies of verb-particle constructions with special reference to Hungarian .....	44
<b>4. MORPHOLOGICAL PRODUCTIVITY IN WORD FORMATION.....</b>	<b>49</b>
4.1 Defining “productivity” .....	49
4.2 A working definition of productivity .....	56
4.3 Degrees of productivity .....	57
4.4 Constraints on productivity .....	59
4.4.1 <i>Syntactic restrictions</i> .....	60
4.4.2 <i>Semantic restrictions</i> .....	60
4.4.3 <i>Phonological restrictions</i> .....	61
4.4.4 <i>Morphological restrictions</i> .....	62
4.4.5 <i>Pragmatic constraints</i> .....	63

4.4.6 <i>Blocking</i> .....	64
4.4.7 <i>Restrictions on the output of word formation rules</i> .....	64
4.5 The criteria of morphological productivity .....	66
4.5.1 <i>Semantic compositionality or morphosemantic transparency</i> .....	66
4.5.2 <i>Morphotactic transparency</i> .....	68
4.5.3 <i>A rule scope requirement</i> .....	69
4.5.4 <i>Class-openness</i> .....	70
<b>5. MORPHOLOGICAL PRODUCTIVITY OF THE ENGLISH</b>	
<b>VERB PARTICLE CONSTRUCTIONS</b> .....	<b>74</b>
5.1 Selection of relevant data and methods .....	74
5.2 Analysis and discussion .....	77
5.2.1 <i>The relationship of prefixed verbs to particle verbs and the interpretation of prefixed verbs in terms of productivity</i> .....	77
5.2.2. <i>Morphological productivity of the verb particle constructions in the dictionaries</i> .....	84
5.2.2.1 <i>Productivity of the particle OUT in verb particle constructions</i> .....	84
5.2.2.2 <i>Productivity of the particle UP in verb particle constructions</i> .....	91
5.2.2.3 <i>Productivity of the particle DOWN in verb particle constructions</i> .....	97
5.2.2.4 <i>Productivity of the particle IN in verb particle constructions</i> .....	100
5.3 Summary of the morphological productivity of verb particle constructions.....	103
5.4 Productivity of verb particle constructions with Levin's verb classes .....	105
<b>6. ASPECT, AKTIONSART, EVENT STRUCTURE AND PARTICLES .</b>	<b>113</b>
6.1 Defining Aspect and Aktionsart .....	113
6.2 The notion of Event Structure .....	120
6.3 A classic example of particles as /+telic/ markers .....	130
6.4 Directional particles and their aspectual impact on verbs .....	132
6.5 The meaning of “perfectivity” and the role of particles in its expression.....	135
6.6 The expressivity of particles.....	138
<b>7. THE IMPACT OF PARTICLES AND COVERBS ON VERBAL</b>	
<b>EVENT STRUCTURE - A CONTRASTIVE ANALYSIS</b> .....	<b>140</b>
7.1 The stative verb in English and Hungarian .....	140
7.1.1 <i>The semantics of stative verbs</i> .....	144

7.1.2 <i>Perfectivization</i> .....	151
7.2 Activity verbs and telicity .....	155
7.2.1 <i>Activity verbs, telicity and particles in English</i> .....	155
7.2.2 <i>Telicity marking in Hungarian. Comparison of Hungarian and English</i> ..	164
7.3 Achievement verbs and telicity in English and Hungarian .....	170
7.4 Semelfactive verbs and telicity in English and Hungarian .....	177
7.5 Summary of event structure, particles and coverbs .....	185
<b>8. A CONTRASTIVE ANALYSIS OF MORPHOLOGICAL</b>	
<b>AKTIONSARTEN IN HUNGARIAN AND ENGLISH .....</b>	<b>187</b>
8.1 The notion of morphological Aktionsart .....	188
8.2 Criteria of determining a morphological Aktionsart .....	190
8.2.1 <i>Productivity</i> .....	190
8.2.2 <i>Aktionsart is an additional feature of verbs with coverbs</i> .....	190
8.2.3 <i>The role of an Aktionsart-forming coverb</i> .....	190
8.3 The analysis of Hungarian-English Aktionsarten .....	191
8.3.1 <i>Frequentative Aktionsart</i> .....	191
8.3.2 <i>Saturative Aktionsart</i> .....	192
8.3.3 <i>Iterative Aktionsart</i> .....	192
8.3.4 <i>Resultative Aktionsart</i> .....	193
8.3.5 <i>Semelfactive Aktionsart</i> .....	194
8.3.6 <i>Diminutive Aktionsart</i> .....	194
8.3.7 <i>Inchoative Aktionsart</i> .....	195
8.3.8 <i>Delimitative Aktionsart</i> .....	196
8.3.9 <i>Total Aktionsart</i> .....	197
8.3.10 <i>Intensive Aktionsart</i> .....	198
8.3.11 <i>Exhaustive Aktionsart</i> .....	198
8.4 Summary of Hungarian-English Aktionsarten .....	199
8.5 Verb particle combinations and word-formation .....	200
<b>9. CONCLUSION.....</b>	<b>203</b>
<b>10. REFERENCES .....</b>	<b>207</b>

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## ABSTRACT

The main aim of this dissertation is to examine certain properties of verb particle constructions, such as productivity, aspect and Aktionsart. The productivity of verb particle constructions is one of the central issues of this dissertation since, unlike the majority of views in the literature, we will show that verb particle constructions can be highly productive in their literal, i.e. directional sense as well as aspectual sense and as such should be treated separately from the idiomatic phrasal verbs. The study presents a detailed analysis of verb particle combinations with the four particles *out*, *in*, *up* and *down* all having clear directional meanings. The author of the dissertation puts forward a suggestion used as a guideline for the present analysis according to which verb particle combinations are morphologically productive formations if they are morphotactically productive (the particle attaches to verbs in a productive way) and morphosemantically transparent (the meaning of the verb particle combinations can be derived from the meaning of their parts). It has turned out from the study that this latter criterion should be waived in the case of those combinations where the particle conveys aspectual meanings. In order to obtain the productive patterns of verb particle constructions two different sources of information have been used: paper and online learners' dictionaries as well as Levin's (1993) verb classes. It has been shown that many semantic classes of verb particle constructions can be set up in which a particle productively attaches to a verb stem; besides, a number of lexical rules can be formulated that generate the productive word formation pattern for a verb particle construction.

Another goal of the thesis is the analysis of aspectual and Aktionsart meanings of verb particle combinations. The dissertation argues for separating the notions of aspect and Aktionsart and examines the verbal particle's and coverb's impact on the event-structural make-up of the event and Aktionsart-formation. The analysis has revealed that verbal particles in English and coverbs in Hungarian may alter the telicity value of the verb or verbal predicate in different event classes in both languages. It has turned out from the analysis that the telicity marking in Hungarian by different coverbs is more systematic and consistent than that in English by different verbal particles.

Aktionsart as defined in the present work is a morphologically determined lexico-grammatical category. Following the generally accepted view, morphological rules operate in the lexicon. This part of the thesis is meant to be a contrastive study, i.e. the aspectual and Aktionsart meanings of verb particle combinations can be investigated within the English-Hungarian contrastive framework and it is an attempt in the present thesis to carry out such an



investigation. The analysis has shown that English has only one Aktionsart, the resultative Aktionsart expressed by means of different verbal particles in contrast with eleven Aktionsarten in Hungarian, which are expressed by at least ten coverbs and the suffixes *-gat/-get*. The author has provided arguments to support the observation that the verb particle constructions in English are not morphological constructs and concluded that the notion of morphologically expressed Aktionsart does not exist in English.

The present dissertation does not aspire for a detailed investigation of phraseological units with idiomatic meanings, the focus is on the transparent verb particle combinations with only a superficial note of idiomatic meanings.

## ÖSSZEFOGLALÓ

A disszertáció fő célja az ige + partikula (=IP) szerkezetek produktivitás/termékenység, aspektus és akcióminőség szempontú vizsgálata. A termékenységgel kapcsolatban megmutatjuk, hogy az IP-szerkezetek szószerinti irányjelentésükben és aspektuális jelentésükben nagyon termékenyek lehetnek, a nyelvészeti irodalomban képviselt vélemények többségétől eltérően. Ez azt is jelenti, hogy az IP-szerkezeteket és az idiomatikus frazális igéket külön kell kezelni. A szerző az ige + négy irányjelentésű angol partikula *out*, *in*, *up* és *down* szerkezetek részletes elemzésére vállalkozik. Az elemzést olyan morfológiai modellben végzi, amelyben az IP-szerkezet akkor tekinthető morfológiailag termékenynek, ha morfotaktikailag termékeny (az igéhez termékeny módon járulhat hozzá a partikula) és morfoszemantikailag transzparens (az IP-szerkezet jelentése levezethető az ige és a partikula jelentéséből). A vizsgálatból megmutatta, hogy a morfoszemantikai transzparencia elve nem érvényesül a kizárólag aspektuális jelentést hordozó partikulák esetében. A szerző az IP-szerkezetek produktív mintáinak a megállapításához kétféle forrásanyagot használ: hagyományos és online tanulói szótárakat és Levin (1993) igeosztályozását. A vizsgálatból megmutatta, hogy az ige + partikula szerkezeteknek több szemantikai osztálya állítható fel, amelyekben a partikula produktívan kapcsolódik az igetőhöz; megfogalmazható egy sor lexikai szabály, melyek segítségével képezhető az IP-szerkezet.

A disszertáció egy másik célja az IP-szerkezetek aspektuális és akcióminőségbeli jelentéseinek vizsgálata. A szerző az aspektus és az akcióminőség fogalmainak a kettéválasztása mellett érvel, majd megvizsgálja az igei partikula és az igekötő hatását az ige eseményszerkezetére és az akcióminőség-képzésre. A vizsgálatból megmutatta, hogy az angol igei partikulák illetve a magyar igekötők mindkét nyelvben megváltoztathatják az ige vagy igei predikátum telikusságát a különböző osztályokban. Az elemzésből kiderült, hogy a különböző igekötők a magyarban szisztematikusabban és következetesebben jelölik a telikusságot, mint az igei partikulák az angolban.

A jelen munkában az akcióminőségfogalmat morfológiailag meghatározott lexiko-grammatikai kategóriának tekintjük. Általánosan elfogadott felfogás szerint a morfológiai szabályok a lexikonban működnek. A szerkezetes igék aspektuális és akcióminőségbeli jelentései angol-magyar kontrasztív vizsgálat tárgyát is képezhetik és a jelen dolgozatban egy ilyen vizsgálatra teszünk kísérletet. A vizsgálatból kiderült, hogy az angolban csak egy akcióminőség található – a rezultatív akcióminőség –, melyet különféle partikulák fejeznek ki

szemben a tizenegy akcióminőséggel a magyarban, melyek különböző igekötőkkel és a *-gat/-get* képző segítségével jönnek létre. Megmutattuk, hogy az angolban az ige + partikula szerkezetek nem morfológiai alakzatok, ezért a morfológiailag kifejezhető akcióminőség fogalma nem használható az angolban.

Az idiomatikus jelentésű frazeológiai egységek részletes vizsgálata nem tartozik a dolgozat feladatai közé, a fő hangsúlyt a transzparens IP-szerkezetekre helyezzük, az idiomatikus jelentéseket csak érintőlegesen említjük.

## 1. INTRODUCTION

Phrasal verbs have always tended to play a rather marginal role in English linguistics which does not do justice to the facts. Although having been thoroughly defined by researchers as to their special models of expression, semantic and syntactic features, phrasal verbs create problems for language learners, partly because there are so many of them, but also because the combination of verb and particle so often seems totally arbitrary. These difficulties are sometimes further increased by the way in which phrasal verbs are presented in course books or by teachers telling students that they will just have to learn them by heart, thereby implying that there is no system. However, if one looks closely at the combination of verb and particle, patterns start to emerge which suggest that the combinations are not so arbitrary after all.

Research into English phrasal verbs is important and relevant for a number of reasons. First, phrasal verbs bear a strong resemblance to combinations of verb + prepositional object (e.g. *believe in God*, *look after the dog*, *wait for Mary*) as well as verb + adverb (e.g. *He walked across the square*, *She opened the shutters and looked outside*) or prepositional phrase (e.g. a boat *with the blue sail*, the dog *on the bathroom floor*). But what can be called a ‘true’ phrasal verb is widely debated.

Phrasal verbs, such as *take off*, *make out*, *look up*, *bring out* are often referred to as multi-word words or verb particle constructions which consist of a lexical verb and a particle, where the term “particle” includes at minimum things like *up* and *over* as in *John looked the information up* and *The wind knocked the tree over*, but individual scholars (cf. Zeller 2001) enlarge the set of particles to feature things like *awry* in *it went awry* and *part* in *we took part in an event*. Consequently, this view suggests that the set of particles includes not just prepositional particles but also nominal and adjectival elements (like *awry* and *part*). Though most discussions of particles in the literature confine the reference of the term “particle” to prepositional elements (cf. Emonds 1972, 1976; Den Dikken 1995), still in Fraser (1976), Stiebels and Wunderlich (1994), and Sawyer (1999) the term “particle” (for elements like *up*) is confined to “non-predicative particle” (Vinka’s (1999) term) while words such as *over* in *knock the tree over* are not identified as particles but rather as adverbs.

Thus it seems that the literature on particles lacks consensus on an explicit definition and the proper delineation of the set of particles and these problems are worth dealing with.

Secondly, Kovács (2007) mentions that students' mistakes in the usage of phrasal verbs are related to syntactic, semantic and stylistic properties of these combinations. Among these, semantics causes the biggest concern for learners. At the outset we might easily recognise a particle with almost any verb of motion (*go out, run down, jump in*), which is important but by no means sufficient to understand the meaning of the combination. Sinclair (1991: 67-68) emphasizes that sometimes even the verbs constituting phrasal verbs are difficult to isolate semantically. For instance, we have the verb *make*, which can be combined with the particle *out* in *make out*. One of the problems with such verbs is that the meaning of the combination of the verb with the particle cannot always be inferred from the meaning of the verb and the particle, independently. Thus the verb *make* means 'produce', 'cause', 'perform', 'force', 'be or become', 'calculate', etc.; and *out* means 'used to show movement to a place or position that is not inside', among other things. But when combined together in *make out* they can mean 'see, hear or understand (something or someone) with difficulty', as in *What I couldn't make out was your motive* (*Cambridge International Dictionary of Phrasal Verbs* 1997: 213). It can also mean 'write all the necessary information on (an official form, document, etc.)', as in *Did you make out a receipt?* (*Cambridge International Dictionary of Phrasal Verbs* 1997: 214). Apart from the fact that these meanings are not related to the meanings of the individual words used in the combinations, the possibility of a number of alternative meanings for each combination further adds to their complexity. Particles basically denote directions. However, in the majority of cases as shown above they contribute special other meanings to the meaning of the combination, which is not easy to recognise.

Third, traditional lexico-semantic analyses do not explain fully why verbs combine or not with certain particles. While analysing the meanings of verb particle constructions, grammarians, such as Live (1965), Bolinger (1971), Lipka (1972), Fraser (1976) generally assume that phrasal verbs being an arbitrary combination of a verb and one or more particles have to be learnt and they instead emphasize the importance of the syntactic aspects of verb-particle combinations. However, they also claim that the particle can contribute some meaning to the meaning of the whole combination. Brinton (1988), for example, emphasizes not only the spatial but aspectual /Aktionsart meanings of particles and Bolinger (1971: 97) likewise states that "the bulk of phrasal verbs whose meanings have deviated from the more or less literal sum of its parts" can be explained in terms of "perfectivity". The particle in phrasal verbs in many cases loses its concrete meaning and instead assumes an aspectual meaning. However, the exact nature of this aspectual meaning is frequently unclear.

Traditional semantic analyses seem to be rather unsystematic and often fail to account for the semantics of the particles of this type.

Another point worth mentioning is that many phrasal verbs have metaphorical meanings. According to Rudzka-Ostyn (2003: 2), in numerous cases the main problem with phrasal verbs is gaining insight into the meaning(s) of their particles and understanding why one particle is used and another is not. While it seems relatively easy to recognise the literal meaning of the particle, the number of its metaphorical extensions may be hard to perceive.

The primary aim of this dissertation is to examine certain properties of phrasal verbs or verb particle constructions (as they will be called in this paper) such as productivity, aspect and Aktionsart. Productivity of verb particle combinations receives a special emphasis in this thesis since, unlike the majority views in the literature, we intend to show that verb particle combinations can be highly productive in their literal /directional sense and as such should be treated separately from the idiomatic phrasal verbs. The productive classes of verb particle constructions are still arbitrarily numbered in the literature and there is no widely accepted classification of the numerous productive combinations and only a superficial note of unproductive combinations.

The analysis of aspectual and Aktionsart meanings of verb particle combinations is another goal in the present paper. Many linguists highlight the aspectual role of the verbal particle (cf. Bolinger 1971, Brinton 1988). In the traditional linguistic literature the notions of aspect and Aktionsart are often conflated. In this thesis we will first argue for the separating of the notions of aspect and Aktionsart and then examine the verbal particle's impact (and that of the Hungarian coverb) on the event-structural make-up of the event and Aktionsart-formation. And although the whole dissertation is not meant to be a contrastive study, the aspectual and Aktionsart meanings of verb particle combinations will be investigated within the English-Hungarian contrastive framework. Such an analysis will help to reveal the relationship of the English verb particle combinations and verbs with coverbs in Hungarian as well as to show the specific usage of particles in English and coverbs in Hungarian.

It is important to remark that the traditional linguistic approaches treat phrasal verbs in most cases as idioms. The present paper does not aspire for a detailed investigation of phraseological units with idiomatic meanings, the focus will be on the transparent verb particle combinations with only the superficial mentioning of the idiomatic meanings.

In order to avoid terminological confusion, phrasal verbs will be used in the broad sense including compositional verb particle combinations or also called "verb particle constructions" and "particle verbs" in this paper. As for Hungarian, the term "verbs with

coverbs” will be used to refer to the complex verbs consisting of a coverb (a preverbal element) and a verbal base.

The examples of verb particle combinations are taken from various printed and online dictionaries (e.g. *Collins Cobuild Dictionary of Phrasal Verbs*, <http://www.onelookdictionary.com>, etc.), the majority of the example sentences in English are compiled by the author of this dissertation which were subject to native speakers’ judgements on acceptability to avoid mistakes since the native language of the author is not English. Some examples are adopted from different linguists. In rare cases corpus examples (e.g. <http://www.americancorpus.org/>) are also used to support the proposed views.

For the present purpose the investigation will be confined to the analysis of the semantic characteristics of verbs and four particles *out*, *in*, *up* and *down* all having clear directional/ spatial meanings. The choice to examine primarily spatial senses of verbal particles is fuelled by the lack of meaning explanations of these ‘directional markers’ offered in the linguistic literature. Spatial and non-spatial meanings often co-exist, and in such a context it is difficult to guess whether metaphorical shift has occurred in the verbal root or the particle still retains its spatial meaning, or, finally, the particle begins to occur in contexts where its spatial meaning is not discernible any longer.

The dissertation is organised as follows. After this introductory chapter, Chapter 2 sets the scene by presenting an overview of previous studies on phrasal verbs in the linguistic literature, various dictionaries and recent grammar books. This chapter also provides a short insight into the history of phrasal verbs as well as a discussion of some syntactic tests that make the delineation of phrasal verbs easier.

Chapter 3 deals with the semantico-syntactic features of verb particle combinations. It is an attempt to clarify transparent and idiomatic verb particle combinations based on their semantico-syntactic features as well as to give a detailed classification of verb particle constructions which will be used as a guideline throughout this study.

Chapters 4 and 5 address one of the central issues of this dissertation – morphological productivity of the English verb particle constructions and non-productivity of prefixed combinations in English. Chapter 4 introduces the main concept of morphological productivity in word formation and elaborates the definition used for the present research. Chapter 5 reports on the details of the research. In the presented analysis of verb particle constructions with the four particles *out*, *in*, *up* and *down*, we argue that verb particle constructions are highly productive formations in their literal, i.e. directional sense as well as

their aspectual sense. The possibility to extend the productive classes of verb particle constructions is shown via the use of Levin's (1993) verb classes.

Chapters 6 and 7 address another central issue of this dissertation – the impact of verbal particles and coverbs on the event structure of a verb. Chapter 6 provides the background to aspect and Aktionsart studies in the literature and introduces the notion of event structure. Chapter 7 takes a closer look at the various ways in which the four English particles *out*, *in*, *up* and *down* and the corresponding coverbs in Hungarian may or may not alter the event-structural make-up of the event. The whole chapter is meant to be a contrastive study.

Finally, Chapter 8 provides a contrastive analysis of morphological Aktionsarten in Hungarian and English. We will argue that Aktionsart is a morphologically determined lexico-grammatical category. Following the generally accepted view, morphological rules operate in the lexicon. Hungarian being an agglutinative language, it can introduce Aktionsarten via derivational affixes in contrast with English, a language with a poor inflectional morphology, where morphologically expressed Aktionsarten do not exist.



## 2. OVERVIEW OF PHRASAL VERBS

### 2.1 Problems with the traditional approach

The traditional treatment of phrasal verbs in course books is exemplified among others in Sue O'Connells's *Focus on First Certificate* (1987: 27), where a list of phrasal verbs using *put* is given, together with a definition and an example for each one. *Macmillan Phrasal Verbs Plus* dictionary (2005: 271) gives nine meanings of the common phrasal verb *make up* and *Webster's Third New International Dictionary* (1986) ascribes thirty-five meanings to this phrasal verb. Analysing these combinations, grammarians such as Live (1965), Bolinger (1971), Lipka (1972), Fraser (1976) recommend learning these combinations by heart, implying that there is no system and phrasal verbs must be considered random patterns of a verb and one or more particles. Bolinger, for example, is not even concerned with providing a set of clear-cut conditions for identification of phrasal verbs. In fact, he remarks that he does not "believe that a linguistic entity such as phrasal verb can be confined within clear bounds. Rather, there are analogical extensions in all directions" (Bolinger 1971: 6). But can language learners master all the existing combinations and constantly invent new phrasal verbs? This approach seems to be inappropriate for the following reasons:

1. There are an increasingly growing number of combinations of verb and particle – *make up, take up, take out, make out, put away, put up, put out, take away, make away*, etc.
2. Many phrasal verbs have more than one meaning. Consider the meanings of the above-mentioned *make up* (*Collins Cobuild Dictionary of Phrasal Verbs* 1991: 214):

1. invent an explanation for something

*They made up an excuse for being late*

2. put on cosmetics

*She went to the bathroom to make her face up*

3. stop being angry with someone

*They are always arguing, but they make up very quickly*

4. making it complete what was missed

*Fortunately, my professor let me make up the exam I missed yesterday*

5. make an amount or a number complete

*I am paying £ 500 and Dave is making up the difference*

6. to compensate for a mistake, offense or omission

*Allen made up for being late by getting me flowers*

In respect of these combinations, Live (1965: 430) mentions that “homonymy is a significant concomitant of this pairing of verb and particle” that creates most confusion and this confusion around these combinations is “further compounded by obscuring of the original metaphor; therefore non-native speakers may find these verbs troublesome” and, she further remarks, it would be absolutely desirable to reduce the vocabulary load and substitute a phrasal verb with a single-word synonym where possible. However, with the above remark Live (1965) is not only laying down a prescriptive statement, but also mirrors the lack of knowledge of the processes which occur in a language.

3. The meaning of idiomatic phrasal verbs does not appear to be the sum of the two (or three) parts. In *We have run out (of petrol)* nobody is doing any running and nobody is going out. However, to complicate the issue further, some phrasal verbs with objects look identical to verbs followed by a prepositional phrase. In *They ran over the bridge* ‘crossed the bridge by running’, *ran over* functions as verb + preposition, in which the preposition *over* and *the bridge* cannot be reversed. Whereas, in *They ran over the cat* ‘knocked down and passed over’ *ran over* is a phrasal verb. However, as Quirk et al. (1985: 1157) point out, it is not unusual for the same sequence of verb + particle to function as a phrasal verb or as a prepositional verb as in *He turned on his supporters* ( phrasal verb: ‘He excited them’) and *He turned on his supporters* (prepositional verb: ‘He attacked them’). A reduced version of the former sentence would be *He turned them on*, while the correspondingly reduced version of the latter would be *He turned on them*. A special case of the above homonymy occurs where the phrasal and prepositional verbs are not only identical in form, but similar in meaning. Examples are *run through*, *run over*, and *look over*. Thus, *The car ran him over* and *the car ran over him* have virtually the same meaning, but the former (the phrasal verb) is reserved for the description of driving accidents, in which the object refers to a casualty. Therefore, the sentence *The car ran over a bump* has no corresponding phrasal verb construction \**The car ran a bump over*.

4. Side (1990: 145) notices that since teachers and course books usually give definitions of phrasal verbs, students are more likely to use the latinate definition rather than Anglo-Saxon phrasal verb, especially if it is a one-word definition (*pick up* ‘receive’). The latinate word is easier to learn, particularly if it is related to a word in the students’ own language, and seems to make more sense.

5. Particle seems random. A teacher reviewing recently learned vocabulary with the students is quite likely to ask ‘Can anyone give me a phrasal verb meaning *arrive* starting with *turn*?’

Students then may shout the first particle which comes into their heads and this will continue until one of them finally gives the right *up*.

In addition, the following problems may also arise:

6. There is often some confusion, despite the examples given in exercises, as to whether the verb is intransitive (*die away*) or transitive (*take up*). With transitive phrasal verbs it is necessary to make clear whether the particle can be separated from the verb or not. For example, some particles have a fixed position in relation to the verb, such as in *They did away with the monarchy*, where the particle occurs immediately after the verb, thus the ungrammatical *\*They did with the monarchy away*. Others have a more flexible order in relation to the verb, and can equally well occur immediately after the verb, or after another complement, such as *eat up* in *If you eat up all your cereal, I'll give you a piece of chocolate* and in *She sat on my bed and made me eat all my cereal up* (from *Collins Cobuild Dictionary of Phrasal Verbs* 2001: 95). However, the same flexibility does not apply if the noun phrase object is a pronoun. Then *She likes chocolate, so she ate it up* is grammatical, but *\*She likes chocolate, so she ate up it* is not.

7. Register/appropriacy problem. With reference to point 4 above, it should be mentioned that phrasal verbs are sometimes thought of as more informal and not as appropriate for written English, where some consider it better to replace them with a single word equivalent. However, as Side (1990) argues, it may be the case that the single word equivalent has a different range of use, meaning or connotation and cannot be easily used to replace the phrasal verb, or it may sound too formal or pompous when used. For example, *I'm **done in*** would be used in a different social context from *I'm exhausted*. Consider also *The British Government recently **distributed** leaflets on AIDS to houses throughout the country*. It is unlikely to have been reported as “gave out leaflets”. Similarly, *My radio **picks up** America* has connotations of difficulty which the equivalent *receive* lacks (all examples are adopted from Side 1990: 145). These examples confirm the fact that direct equivalents of phrasal verbs do not always exist, phrasal verbs tend to be thought of as informal and inappropriate in formal writing.

To sum up the discussion about the disadvantage of the traditional approach, a few words should be mentioned. Although listed phrasal verbs can be learnt by heart, their number is potentially infinite as it is constantly growing with new combinations appearing. Although learners often see phrasal verbs as comprising a verb and a randomly interchangeable particle this is not how language functions. If someone examines phrasal verbs more closely they start to realise that new combinations form a productive pattern that can be captured, with the

particles having a particular meaning to contribute to the meaning of a number of combinations. This is the case with the particle *up*, indicating movement or position, and the phrasal verbs *rollerskate up*, *telemark up*, *skateboard up* (cf. Villavicencio 2003). When this is the case, it is often the verb which is new while the particle remains unchanged.

Even though some verbs permit flexible orders and/ or optional constituents, there is usually a preference for a particular form. This kind of information is useful and dictionaries like *Collins Cobuild Dictionary of Phrasal Verbs* contain the possible variations for each sense of a phrasal verb.

Finally, though the distinction between verb-preposition and similar transitive verb-particle combinations sometimes causes problems, certain syntactic tests enable us to make a difference between directional particles and their prepositional counterparts and it follows that we should consider all particles as a class distinct from prepositions. All these factors make phrasal verbs an interesting phenomenon to investigate while at the same time it is challenging to capture them appropriately.

The following chapters will shed some light on the treatment of phrasal verbs given by dictionaries and coursebooks as well as show the tests and criteria proposed by researchers to identify phrasal verbs appropriately.

## 2.2 Defining phrasal verbs in the linguistic literature

The term “phrasal verb” is problematic for two reasons: on the one hand, this category has not always been called that but, for example, verb-adverb compound (Kennedy 1920), compound verb (Kruisinga 1932), discontinuous verb (Live 1965), two-word verb (Taha 1960, Meyer 1975), verb-particle combination (Fraser 1976), multiword verb (Sag et al. 2002) and on the other hand, “phrasal verb” has sometimes served as a cover term including also prepositional verbs (Sroka 1972) and maybe even other categories (Dixon 1982). Bolinger (1971) chooses the term “phrasal verb” just for convenience and Lipka’s term is “collocations” in which “a simplex verb collocates with a particle ” (Lipka 1972: 74). The more recent approaches do not regard phrasal verbs as multi-word verbs. Most of them are found in the generative camp and attempt a study of phrasal verbs in terms of a small clause interpretation trying to solve some theoretical syntactic problems but seem to disregard important semantic and communicative implications regarding phrasal verbs (Bas Aarts 1989, den Dikken 1995, Kayne 1985, Dehé 2002). Some of them deal with only one particular

aspect of phrasal-verb syntax such as particle placement (Capelle 2002, Gries 2003, Zeller 2001). Diverse though these approaches may be, since the present study is concerned with the semantic aspects of phrasal verbs, syntactic considerations will be addressed just to the extent necessary for the aims of the study.

In this dissertation the most common approach will be followed, namely, phrasal verbs are relatively unitary combinations of a verb and a particle, which is best of all regarded as an adverb, but not as a preposition. This paper will use the term “verb particle construction” or “particle verb” throughout the analysis in the forthcoming chapters because it seems to be the most explicitly descriptive and straightforward term available.

Deciding what exactly constitutes a phrasal verb is not easy. Obviously not all phrases containing verbs are phrasal verbs. According to Bolinger (1971: 3), phrasal verbs are combinations “about which generalisations can be made... which display shared regularities or irregularities and show some special degree of cohesion that sets them apart from the more free composable constructions such as *to live at home*, *to leave tomorrow*”. At the core of Bolinger’s notion of phrasal verb is a verb proper and a following adverbial particle (e.g. *up*, *over*, *on*, *in*, *down*), though not all such combinations are analysed as phrasal verbs. To limit the scope of his study, Bolinger excludes from consideration verb compounds such as *rely on*, *deal with*, *confide in*, and *put up with*, which exhibit little verb-adverbial generalisation and have a high degree of cohesion – which are, in short, relatively frozen idioms of the general form verb-preposition.

Similarly, he rejects combinations such as *to fall ill*, *to ring true*, *to turn turtle*, and *to cut a figure*, which consist of a verb and a non-adverbial complement. There remain verb-adverbial combinations showing generalisations which must meet a general test of verb-particle discontinuity, as in *He looked up the number* vs. *He looked the number up*. But in contrast to many linguists working within a generative framework, Bolinger does not attempt to provide a set of precise conditions for the identification of phrasal verbs. He remarks that “being or not being a phrasal verb is a matter of degree” (Bolinger 1973: 6).

While emphasizing the similarity between adverbial particles and derivational affixes Bolinger defines the place occupied by phrasal verbs in language structure as “at the border of syntax and morphology”. This status he explains by the morphological-syntactic peculiarities of the phrasal verbs:

... phrasal verbs are special in that they represent a kind of double layer of compounding. The particles are, to begin with, more or less affixal in nature

[...]. The first compositional layer is the simple association of a verb and a particle. The second layer is a differentiation within the phrasal verb, related to the varying position of the particle and other factors. (Bolinger 1971: 111)

This second layer is of utmost importance for any discussion of phrasal verbs as it shows conditions under which particles in phrasal verbs may occur, linguistic factors which influence the position of the verbal particle, and – most important – enables one to make a distinction between particles and non-particle elements. A separate chapter will discuss these conditions in brief.

It is apparent from Bolinger's study that his examination of phrasal verbs does not establish binary-like, discrete criteria for analysis. It rather concentrates on examining the degree to which certain verbal compounds appear to fit his notion of a phrasal verb.

In the linguistic literature the two major problems of definition concern the **nature and grammatical status** of the adverbial element and the importance of **idiomaticity**, i.e. opacity, of phrasal verbs (Palmer 1974, Quirk et al. 1982, Courtney 1983).

The meaning of phrasal verbs is in many cases non-compositional, i.e. idiomatic and therefore “there is no choice but to list them in the lexicon as complete units” (Jackendoff 2002: 73). In Jackendoff's opinion phrasal verbs have to be stored and learnt as a whole precisely because phrasal verbs with idiomatic senses cannot be deduced from the individual items they consist of. As far as the non-verbal element of a phrasal verb is concerned, most linguists agree that it is a particle which has an adverbial status (Lipka 1972, Palmer 1974, Quirk et al. 1985, Cowie 1993, Greenbaum 1996a, Biber et al. 1999).

Huddleston and Pullum (2002) take a different approach, calling this element an intransitive preposition. They even refrain from using the expression “phrasal verb” at all, on the basis that verb plus particle combinations of the type *put in (an application)* do not form one syntactic constituent any more than verb plus unspecified preposition combinations such as *carry in (the chairs)*, where *in* could be replaced by *out* or *over*.<sup>1</sup>

Fraser (1976) regards a verb-particle construction (VPC) as a “two-word verbal idiom”, where an idiom is “a single constituent or a series of constituents whose semantic

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<sup>1</sup> Hence they choose to use the phrase “prepositional verb” instead, this notion referring exclusively to the verb itself when it selects a preposition as a complement (Huddleston 2002: 273). Compare: *Kim referred to your book* vs. *Kim flew to Boston*, where *refer* is a prepositional verb since it selects a specified preposition (*refer* combines with *to* exclusively to express the object of the reference). The second *to* is an unspecified preposition: *flew* could have been followed by another preposition as in *Kim flew from Boston*.

interpretation is independent of the formatives which compose it” (Fraser 1976, the preface, v). This approach seems to exclude all non-idiomatic verb-particle combinations and thus combinations with directional particles which we include in the category of phrasal verbs. Fraser claims that the VPC can be “identified in terms of its syntactic properties rather than its semantic non-compositionality” (Fraser 1976, vi).

Some grammarians, such as Palmer (1974) use the term “phrasal verb” for both idiomatic and non-idiomatic combinations, e.g. *The enemy gave in* vs. *The guests came in*. Palmer also distinguishes prepositional verbs from simple sequences of verb and prepositional phrase, e.g. *The sparrow **flew** in the plane* vs. *The passenger **flew in** the plane*. He further makes a distinction between intransitive and transitive prepositional verbs, the former being semantically transparent and fairly free syntactically, the latter being semantically and syntactically more restricted, e.g. *He came across the road* vs. *He came across the missing papers*. *He deprived the children of their rights*. Another parameter specified by Palmer relates the distinction in word order to a literal/figurative meaning of a given verb particle combination. He claims that the pre-nominal position of the particle is typical of idiomatic phrasal constructions and vice versa:

With transitive phrasal verbs there is a greater likelihood of the particle preceding the noun phrase if idiomatic, and of following it, if not (Palmer 1974: 227):

- (1) a. They **covered up** the crime.
- b. They **covered** the body **up**.

This opinion is shared by Tenny (1994: 179) who claims that the separability of the verb and the particle can also be influenced by the degree of idiomatization of a verb-particle combination:

Highly idiomatized combinations are less likely to be separable from the verb: (a) may be interpreted in the literal or the figurative sense, but for many speakers, (b) may only be interpreted in the literal sense:

- (2) a. *Don't throw up your lunch.*
- b. *Don't throw your lunch up.*

We claim that the word order in phrasal constructions does not show any regular dependence on their idiomaticity, the verb and the particle may appear adjacently or separately in both idiomatic and non-idiomatic constructions, e.g.

- (3) a. *She made up her face./ She made her face up.* (idiomatic)
- b. *Bill carried away the rubbish./ Bill carried the rubbish away.* (literal)

Consider, however, the following sentences which clearly display that the particle cannot be moved in idiomatic constructions, e.g.

- (4) a. *He put down his daughter. /He put his daughter down.* (literal)  
b. *He put down his daughter. /\*He put his daughter down.* (idiomatic)

Thus, it seems we have to deal with tendencies rather than rules alone and a detailed empirical analysis of the matter would be needed to get a clearer picture.

Relying on idiomaticity as a criterion makes the delimitation of phrasal verbs vague and complicated because idiomaticity itself is “a highly gradable phenomenon” (Hampe 1997). Hampe gives a broader syntactic-semantic definition of phrasal verbs: “... the phrasal verb is a fuzzy category, a continuum ranging from syntactically unrestricted to syntactically frozen and from non-idiomatic to idiomatic constructions, with both dimensions not always coinciding, but with semantic characteristics motivating syntactic behavior to a large extent” (Hampe 1997: 239-240). Let us now consider some earlier writings on phrasal verbs.

L. P. Smith (1923: 172) was the first to introduce the term “phrasal verb” into the linguistic literature. In his book *Words and Idioms* he mentions that this term was suggested to him by OED Editor Henry Bradley, who was not quite satisfied with the term. Smith remarks that phrasal verbs are “idiomatic anomalies – phrases with meanings not implied by the meanings of the words which compose them. These phrasal verbs correspond to the compound verbs in synthetic languages”. He also mentions that in English there exist both compound and phrasal verbs, often composed of the same elements like *upgather* and *gather up*, *uproot* and *root up*. The meaning can be the same as in these instances, but can be exactly opposite as in *upset* and *set up*. It is obvious from Smith’s phrasal verb definition that the verb and the particle constitute a semantic unit.

In Curme’s (1925: 259) classification the particles *at*, *in*, *to*, *from*, *with*, *to* and *for* belong to prepositions which are added to intransitive verbs to form transitive verbs, e.g. *to arrive at a point*, *to depart from the field*, *to associate with friends*, etc. He also distinguishes prepositional adverbs from prepositions by means of stress. For example, *We soon reached the park and strolled **through*** (a stressed adverb) vs. *This is the park we **strolled through*** (a stressed preposition). Prepositional adverbs usually have the same form as the prepositions that stand before a noun, but in older English, they often had a different form except in relative clauses, they are sometimes still distinguished in the case of *out*, *in*, and *on* in connection with verbs denoting motion from or toward: *He **came out of** the house* (preposition) and *He is now in the house but will soon **come out*** (prepositional adverb). In



short, in Curme's opinion the particles attached to other verbs are all classified under the category of preposition.

Poutsma (1926: Part II, ii, 88) makes a distinction between a "group verb" and "verb plus preposition", but he is not sure about their distinctive features. "There is some hesitation whether in the following quotations we have to understand *to see through* (his intentions, his manouevres) as a kind of group verb governing an object, or to apprehend *to see* as an intransitive verb and *through* as a preposition. Considered in the light of the Dutch translation, which would have 'dozen' as the equivalent of *to see through*, the first view would seem to be more plausible than the second".

Kruisinga (1932: II/3,72) defines phrasal verb as a "compound", which according to him is "a combination of two or more words forming a semantic unit which is not identical with the combined meanings of its elements". From this point of view *dirty work* with the figurative meaning of 'dishonorable proceedings' is a compound, while *clean work* or *dry work* are free phrases (Cf. *fusspot*, *slow-coach*). He strongly advocates the semantic criterion while defining a compound as a combination forming a unit expressing a single idea. "Semi-compounds" is another of his terms, used for combinations like *laugh at*, *think fit*, *take care of* that are on one hand "closely connected in meaning", but on the other hand "not completely isolated". Kruisinga's usage of the word "compound" clearly shows that he is willing to give word status to such combinations, for example *She has **made a choice** not only of person, but of class* and his main reason for doing so is their semantic cohesion.

The degree of 'freedom' in the word order of phrasal verb constituents is discussed in Marchand (1969: 1). He distinguishes between genuine free morphemes with sign character, i.e. words and so-called 'free forms'. According to Marchand, the constituents of phrasal verbs behave like words in their distribution, but cannot be regarded as independent signs. They rather form parts of a discontinuous sign, such as *make... out*, having no sign status of their own.

The distinction between adverbial particles and prepositions made by Eckersley (1960: 277) in his *Comprehensive English Grammar* seems to be clearer. He distinguishes prepositions from adverbial particles by giving a clear definition of preposition. "Prepositions are words used with nouns (or noun equivalents) to show the relation in which these nouns stand to some other word in the sentence" and saying that "the part of speech of any word can be decided only by an examination of the work a word is doing". Consider the following Eckersley's (1960: 279) examples:

- (5) a. The boy came *down* the tree. (preposition)  
 b. The tree blew *down* in the wind. (adverb)

Eckersley (1960: 280) also uses the term “phrasal verb” to refer to the verbs which are attached to these particles (prepositions and adverbial particles) and have special meanings, e.g.

- (6) a. I will *put out* the light. (‘extinguish’)  
 b. Can you *put me up* for the night. (‘accommodate’)

Eckersley (1960: 281) concludes that phrasal verbs composed of a verb plus a preposition or an adverbial particle are used as single units and can be easily replaced by a single verb of practically similar meaning. In his opinion the phrasal verb is not two or three words but one single grammatical unit which behaves just like a single word.

This approach again emphasizes the strongly idiomatic character of phrasal verbs and thus excludes adverbial particles with literal meaning.

A similar view about phrasal verbs as “cohesive semantic units” is shared by W. P. Jowett (1950/51: 152) and Live (1965: 443). In the opinion of both linguists, phrasal verbs represent the cohesion of a verb and a following particle of the adverb-preposition category. Live mentions that there exists in English a considerable group of basic verbs, each of which is, in certain of its occurrences, closely linked with a particle – adverbial or prepositional – in such a manner as to justify considering the two elements as constituting one discontinuous verb (e.g. *look up*, *-into*, *-for*; *make up*, *-out*; *carry on*, *-out*, *-through*; *pass off*, *-in*, *-over*, *-up*). This observation is supported by the retention of the particle along with the verb-component in the passive and by its substitutability by a single – usually a more learned – synonym. For example, *take in* ‘absorb’ or ‘deceive’, *look into* ‘investigate’, *bring about* ‘cause’, *talk over* ‘discuss’, etc.

Dixon (2005: 293) uses the term “phrasal verb” for any combination of a verb and preposition(s) where the meaning of the combination cannot be fully inferred from the meanings of the component words, so that it must be regarded as an independent lexical item, and accorded a dictionary entry of its own. Dixon distinguishes six varieties of phrasal verb. Their structures can be abbreviated, using ‘p’ for prepositions and ‘N’ for noun phrase or a functionally equivalent constituent:

- (i) verb-plus-p, e.g. *set in*, *come to*, *pass out*  
 (ii) verb-plus-pN, e.g. *set about X*, *come by X*, *pick on X*

- (iii) verb-plus-Np, e.g. *put X off, take X on, bring X down*
- (iv) verb-plus-NpN, e.g. *see X through Y, hold X against Y*
- (v) verb-plus-ppN, e.g. *take up with X, go in for X, scrape by on X*
- (vi) verb-plus -NppN, e.g. *put X down to Y, let X in for Y, take X up on Y*

Analysing these structures, Dixon emphasises that the difference between (ii) and (iii) is particularly important. A 'p' can move to the left over a noun (but not over an unstressed personal pronoun) in (iii), e.g. *put the meeting off, put off the meeting* and *put it off* but not *\*put off it*. The 'p' cannot move in (ii), e.g. *pick on Mary*, not *\*pick Mary on*. Some verbs of set (vi) may also move the first 'p' to the left over a preceding noun (but not over a pronoun), e.g. *He played John off against Mary, He played off John against Mary*. Dixon also analyses phrasal verbs in terms of their type. Thus he mentions that the vast majority of phrasal verbs are based on monosyllabic roots of Germanic origin, almost all belonging to the types MOTION (e.g., *bring, carry*), REST (*sit, stand*), AFFECT (*cut, kick, scrape*), GIVE (*give, get, have*), MAKING (*make, let*), or the grammatical verbs *be* and *do*. The resulting phrasal verbs are distinguished over a wide range of types; some of them have quite abstract and specialised meanings, for which there is no monomorphemic synonym, e.g. *let X in for X, see X through Y, take up with X*.

The strength of Dixon's study is that it gives a detailed analysis of semantic types of verbs which in combination with certain prepositions produce quite traceable senses. In fact, he mentions that there is no strict cut-off point, but rather a continuum from fully literal through semi-literal to strongly figurative phrasal verbs but even using different syntactic tests, analysing their transitivity and intransitivity it is impossible to draw a strict borderline between them.

It seems apparent from the discussion above that phrasal verbs are rather problematic for linguists because of the abundance of views and definitions. Some identify phrasal verbs as combinations of a lexical verb and a particle, others as a verb and a preposition and some debate whether it is an adverbial particle or a preposition that combines with the verb. Most linguists narrow down their studies and identify phrasal verbs only as idiomatic combinations which can be replaced with one single word.

In the present study, we wish to follow the definitions of phrasal verbs given by Hampe (1997) and Dixon (2005), according to which phrasal verbs involve both idiomatic and non-idiomatic combinations (in fact, a great amount of phrasal verbs are literal and display transparency), and claim that the possibility of substitution with a single lexical verb should not be considered as a reliable criterion for the idiomaticity of phrasal verbs. Not only

can literal, transparent (unidiomatic) phrasal verbs be replaced by single verbs (e.g. *come back* – *return*, *go in* – *enter*), there are also idiomatic phrasal verbs which do not have one-word paraphrases (e.g. *run out of something*). Although Quirk et al. (1985: 1162) draw attention to the fact that substitution by a single verb may not be entirely reliable, they nevertheless view it as a test to discern the idiomatic status of phrasal verbs. So does Cowie (1993: 38), who, however, merely claims that if the whole combination can be replaced by one word it is an idiom. The table below summarizes the above studies on phrasal verbs.

**Table1. Definitions of phrasal verbs in the linguistic literature**

<b>Authors</b>	<b>Grammatical status of a particle or phrasal verb</b>	<b>Main idea</b>
Curme (1925)	“preposition”	particles functioning as prepositions are added to intransitive verbs to form transitive verbs, which are considered as phrasal verbs.
Kruisinga (1925)	“compound”	compound is a combination of two or more words forming a semantic unit which is not identical with the combined meanings of its elements.
Poutsma (1926)	“group verb”	the term “group verb” is used for a phrasal verb, in which the verb governs an object.
Jowett (1950) and Live (1965)	“a verb and a particle of the adverb-preposition category”	phrasal verbs represent the cohesion of a verb and a following particle of the adverb-preposition category, i.e. cohesive semantic units.
Eckersley (1960)	“preposition and adverbial particle”	phrasal verb is used to refer to the verbs which are attached to the particles (prepositions and adverbial particles) with which they form single units.
Marchand (1969)	“words with a discontinuous sign”	the constituents of phrasal verbs behave like words in their distribution which form parts of a discontinuous sign.
Bolinger (1971)	“a verb proper and an adverbial particle”	phrasal verbs represent a double layer of compounding. The particles are more or less affixal in nature. The first

Huddleston and Pullum (2002)	“intransitive preposition”	compositional layer is the simple association of a verb and a particle. The second layer is a differentiation within the phrasal verb, related to the varying position of the particle.
Dixon (2005)	“preposition”	prepositional verb refers to the verb itself when it selects a preposition as a complement.  phrasal verb refers to any combination of a verb and preposition(s) where the meaning of the combination cannot be fully inferred from the meanings of the component words, it is an independent lexical item.
<b><u>Authors</u></b>	<b><u>Idiomaticity</u></b>	<b><u>Main idea</u></b>
Smith (1923)	“idiomatic phrases”	the meanings of phrases are not implied by the meanings of the words which compose them.
Palmer (1974)	“idiomatic and non-idiomatic combinations”	non-idiomatic combinations are semantically transparent and syntactically free, idiomatic combinations are both semantically and syntactically restricted.
Fraser (1976)	“a two-word verbal idiom”	an idiom is a single constituent whose interpretation is independent of the formatives composing it.
Tenny (1994)	“highly idiomaticized combinations”	the separability of the verb and the particle is influenced by the degree of idiomatization of a verb-particle combination.
Hampe (1997)	“non-idiomatic and idiomatic constructions”	there is a continuum ranging from non-idiomatic to idiomatic constructions with semantic characteristics motivating syntactic behaviour of combinations.
Jackendoff (2002)	“idiomatic particle verbs”	idiomatic particle verbs have non-compositional meanings and are listed in the lexicon as complete units.

Before elaborating our own approach needed for the present study, the following section will look at the definitions of phrasal verbs in modern English dictionaries and grammar books.

### 2.3 The treatment of phrasal verbs by Modern English dictionaries and grammar books

A phrasal verb is a type of verb in English that functions more like a phrase than a word. McArthur (1992: 772) in the *Oxford Companion to the English Language* notes that these verbs are also referred to by many other names (already mentioned in the previous chapter) such as verb phrase, discontinuous verb, compound verb and in American English two-part word/verb and three-part word/verb. While he himself identifies the phrasal verb as a verb followed “by an adverbial and/or prepositional particle” (McArthur 1992: 1123), Crystal (1995: 118) in the *Cambridge Encyclopedia of the English Language* calls this linguistic phenomenon a “multi-word verb” that is best described as a lexeme, a unit of meaning that may be greater than a single word.

Some grammarians, such as Kolln and Funk (1998) in *Understanding English Grammar*, take the view that phrasal verbs define only those combinations that form an idiom, a phrase whose meaning cannot be predicted from the meanings of its parts. This is a semantic view, which focuses mainly on the meaning of the combination. For example, Kolln and Funk say that *go up* in *The balloon **went up** into the sky* is not an example of a phrasal verb because the sentence can be rephrased as ***Up** the ballon **went** into the sky*. She designates *up* as an adverb modifying *went*. Kolln and Funk (1998: 35) also apply the test of meaning to phrasal verbs as in these examples: *give in* can be replaced by *surrender*, *pull through* by *recover*, *come by* by *acquire* and *break up* by *end*. Each phrasal verb could be replaced by a single verb with the same general meaning.

While Kolln and Funk (1998) as well as Cowie & Mackin (1993: 427- 428) in *Oxford Dictionary of Phrasal Verbs* exclude non-idiomatic phrasal verbs, most other phrasal verb dictionaries include both literal and idiomatic phrasal verbs (Courtney 1983, McArthur 1992, Sinclair and Moon 1991, v). Grammarians who take this latter approach, i.e. include both literal and idiomatic phrasal verbs, classify phrasal verbs based on their use in sentence patterns (syntactic properties) and as new word formations (morphological properties), as well

as by the overall meaning of these verb combinations (semantic properties). The examples below (from *Collins Cobuild Dictionary of Phrasal Verbs* 1991: 278) illustrate the same phrasal verb having both a literal and a figurative meaning.

- (7) a. She **put down** a book. (literal)  
b. The army **put down** a rebellion. (figurative/idiomatic)

In addition to a single literal and/or figurative meaning, some phrasal verbs can have a multitude of different meanings depending on the context. For example, here are some of the many ways in which the phrasal verb *pick up* is used (the examples below are from *Collins Cobuild Dictionary of Phrasal Verbs* 1991: 246):

**pick up** that book (take up by hand)  
**pick up** your room (tidy up)  
the airport van **picked up** its passengers (take on)  
I **picked up** this ring on sale (acquire casually)  
he **picks up** foreign languages fairly easily (acquire knowledge or learning)  
he **picked up** some milk on his way home (buy)  
his home team **picked up** eight yards on the play (gain)  
retail sales often **pick up** around the holidays (improve)  
the police **picked up** the bank robber (take into custody)  
she just **picked up** and left town (pack one's belongings)

The sentences above illustrate the polysemous nature of phrasal verbs. In such cases it is difficult to pinpoint objectively at which point the meaning of the polysemous phrasal verb is still transparent, and at which it becomes idiomatic.

Finally the question arises: among the host of definitions of phrasal verbs which seem to be the most appropriate to serve with a profound explanation for this phenomenon? Randall (1988: 330) in *Webster's New World Guide to Current American Usage* defines phrasal verbs or "verb sets" as verbs that "take on new meaning when combined with adverbs" and "because these units add up to more than the sum of the separate meanings of their elements, they are idioms". For example, in "*Washing down pillows takes a strong stomach*, when *wash* is combined with *down*, it often has to do with eating something and then following it with a

drink” (Randall 1988: 329-330). But as has been mentioned above, the idiomatic approach alone would not suffice to explain every possible meaning of such combinations.

Most phrasal-verb dictionaries, e.g. the above-mentioned Sinclair and Moon (1991), Cowie and Mackin (1993), *Cambridge International Dictionary of Phrasal Verbs* (1997) include in their definitions not only phrasal verbs “proper”<sup>2</sup> (as defined by Quirk et al. 1985: 1152), but also prepositional verbs, i.e. verbs with a specified preposition such as *rely on* and phrasal -prepositional verbs such as *put up with*.

The 1993 new edition of *Oxford Dictionary of Phrasal Verbs* provides the following definition:

“When a verb+particle (or a verb+preposition) is a unit of meaning [like *Cholera broke out in the north of the country* (‘start suddenly or violently’)] it is a phrasal verb.” (Cowie and Mackin 1993, xi)

*Collins Cobuild Dictionary of Phrasal Verbs* (1991, v) regards combinations of verbs with adverbial and prepositional particles as phrasal verbs. It points to four main types of combinations of verbs with particles:

1. Combinations where the meaning of the whole cannot be understood by knowing the meanings of the individual verbs and particles. Examples are *go off* (explode), *put off* (postpone), *turn down* (reject).
2. Combinations where the verb is always used with a particular preposition or adverb, and is not normally found without it. Examples are *refer to* and *rely on*.
3. Combinations where the particle does not change the meaning of the verb, but is used to suggest that the action described by the verb is performed thoroughly, completely, or continuously. For example, in *spread out*, the verb *spread* has its basic meaning, and the adverb *out* adds the ideas of direction and thoroughness. In *link up*, the particle *up* adds an idea of completeness to the idea of connection. In *slave away*, the particle *away* adds an idea of continuousness to the idea of hard work. These combinations are sometimes called ‘completive- intensives’.

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<sup>2</sup> Quirk, Greenbaum, Leech, and Svartvik (1985) offer syntactic and lexical definitions of the phrasal verb. From the syntactic point of view, a phrasal verb is a verb “followed by a morphologically invariable particle, which functions with the verb as a single grammatical unit like *drink up*, *dispose of* and *get away with*” (Quirk et al. 1985: 1150). The lexical definition of the phrasal verb is that “the meaning of the combination manifestly cannot be predicted from the meaning of the verb [proper] and particle in isolation like in *give in* ‘surrender’, *catch on* ‘understand’, *blow up* ‘explode’ ” (Quirk et al. 1985: 1152).



4. Combinations where the verb and particle both have meanings which may be found in other combinations and uses, but where there is overwhelming evidence that they occur together. For example, in the combination *fight back*, the verb *fight* has the same meaning that it normally does in isolation and *back* is used in a similar way in other combinations such as *phone back* and *strike back*. Such combinations are sometimes called ‘literal phrasal verbs’.

The great advantage of Sinclair and Moon’s treatment of phrasal verbs is that they distinguish between idiomatic and literal phrasal verbs in a clear way, emphasizing that in the literal combination the words have their own meanings and can be combined according to the rules of grammar and selectional restrictions. The idiom principle (advocated by Sinclair himself) assumes that the majority of words acquire a specific meaning only in more or less fixed combinations. In the present dissertation we wish to follow Sinclair’s definition and description of particle verbs as the guidelines for particle verb extraction and analysis.

To sum up the treatment of phrasal verbs by dictionaries the following needs to be said. Although, as Kovács (2007: 49- 50) mentions, modern dictionaries possess a great number of advantages like a clear, user-friendly layout, broad explanation and grouping of the multitude of the particle meanings, extensive list of not only synonyms but antonyms as well (cf. *Oxford Phrasal Verbs Dictionary* 2001), explanation of the syntactic properties of phrasal verbs, the greatest disadvantage of dictionaries of phrasal verbs is that they are word-oriented; traditional dictionaries take into account particular word combinations but rarely cover a variety of options possible in a given language.

Let us now look at the interpretation of phrasal verbs by grammarians like Quirk et al. (1985: 1150-1161) who have been more comprehensive with respect to this phenomenon. In their *Comprehensive Grammar of the English Language* they use the term “multi-word verb” and define it as a “unit which behaves to some extent either lexically or syntactically as a single verb” (Quirk et al. 1985: 1150). Basically there is a verb and one or two additional elements, generally called an adverbial component. Quirk et al. (1985: 1150) divide multi-word verbs into “phrasal verbs”, “prepositional verbs” and “phrasal-prepositional verbs”. Quirk’s (1985: 1167- 1168) major division is made into principal types and “other multi-word verb constructions”. Within the principal types a further division is between idiomatic types as multi-word verbs proper and the non-idiomatic, i.e. literal, types (e.g. *come in*, *run away with*), which are treated as “free combinations”.

Thus the term “phrasal verb” is used only for idiomatic combinations. The principal types, which are based on the formula ‘verb±direct object±adverb±preposition’, consist of the six combinations:

- Type I (intransitive) Phrasal verb (verb+ adverb), e.g. *come in, crop up*
- Type II (transitive) Phrasal verb (verb+ adverb), e.g. *send N away, turn N down*
- Type I Prepositional verb (verb+ preposition), e.g. *come with N, come across N*, e.g. *a problem*
- Type II Prepositional verb (verb+ preposition), e.g. *take N for N (a fool)*
- Type I Phrasal- prepositional verb (verb+ adverb+ preposition), e.g. *come up with N*
- Type II Phrasal-prepositional verb (verb+ adverb+ preposition), e.g. *put N up for N* (an election)

Type II in each case above is the one containing a direct object. Further three types are listed under “others”, namely verb-adjective combinations (e.g. *lie low*), verb-verb combinations (e.g. *make do with, put paid to*) and verbs governing two prepositions (e.g. *develop from... into*).

Although the attempt to classify multi-word verbs by Quirk et al. (1985) seems to be rather comprehensive in a theoretical way, it cannot be totally approved of. There are several problems arising here. As Claridge (2000: 28) remarks, first, there are no clear-cut boundaries in terms of the definition itself. Multi-word verbs in Quirk et al. (1985: 1150) are found between syntax and semantics, cf. “either lexically or syntactically”. Does that mean that some multi-word verbs will fulfil lexical/semantic criteria, others syntactic criteria, while a third group will satisfy criteria in both areas? Fulfilment of all possible criteria cannot be expected. Secondly, the principal types are allocated to the class of multi-word verbs on semantic grounds (idiomaticity), whereas this does not seem to apply to the last three types. Thirdly, the idiomatic approach can lead to interesting exclusions. Combinations such as *come in*, and *send N away*, which syntactically behave identically to *crop up, turn N down* are not treated as multi-word verbs. Cases such as *depend on, consist of* with an obligatory preposition also seem to find no place here. Fourthly, idiomaticity is not a clear-cut thing either but is sometimes seen as a feature yielding not very successful classificatory results. For instance, Quirk et al.’s excluded example *run away with* can be easily paraphrased by the simple word ‘steal’ and thus being idiomatic, while the literal meaning would also be present in the mind of the speaker/hearer.

In the present study we will not follow Quirk et al.’s (1985) approach for the simple reason that it excludes ‘free combinations’, i.e. literal combinations in which the verb and the adverb have distinct meanings, from phrasal verbs and, as has been mentioned earlier, the idiomatic approach alone would lead to incomplete results as regards the analysis of different senses of verb-particle constructions.

The following chapter will look at different stages of the development of phrasal verbs and their relation to prefixed verbs. The significance of this chapter is that it will show how the verbal prefixes came to be replaced by post-verbal particles and that the non-spatial, aspectual meanings of phrasal verbs developed from their concrete, spatial meanings.

## 2.4 The various stages of the development of phrasal verbs

### 2.4.1 *Some notes about phrasal verbs in Old English*

The appearance of phrasal verbs in Old English was quite rare. Much more common was the inseparable prefix+ verb, a form in which the particle was attached to the beginning of the verb. These Old English prefixed forms are directly comparable to current phrasal forms. For example, in Present-Day English, there is a monotransitive verb *to burn* and then the phrasal monotransitive *to burn up*. Old English had *bærnan* (to burn) and *forbærnan* (to burn up). The prefix *for-* remained affixed to the verb and could not move as modern particles can. Such Old English compound verbs were also highly idiomatic, in that the meaning of the compound form did not necessarily reflect the meaning of the root. Denison (1993: 36) provides *berædan* as an example which meant ‘to dispossess’, while its root verb, *rædan*, meant ‘to advise’. Akimoto (1999, cited in the electronic paper of Lamont 2005) suggests that Old English prefixes often remained before the verb because Old English had strong object-before-verb (OV) tendencies, whereas Present-Day English is largely a VO language, which has made it possible for particles to move to post-verbal positions. Denison (1993) notes that the meaning of post-verbal particles in Old English was very often directional. For instance, the particle *forð* had a spatial sense of ‘forwards, forth’, but it could also express combined directional and telic meaning ‘away, to the end’, e.g. *Abraham eode forð* meaning ‘Abraham went forth’ (this example is cited by Brinton 1988: 217). Similarly, the particle *up* in Old English conveyed a sense of direction upward, as in *to grow up (ward)*, rather than the completive sense, as in *to break up (completely)*, that would become more common in Middle English and beyond (Denison 1985: 39, 41, 43). He argues that not until the Peterborough Chronicle did the completive sense appear.

In conclusion, phrasal verbs were present in Old English and the particles predominantly expressed directional meanings but the syntactic development still lagged behind the semantic development.

#### 2.4.2 *The introduction of phrasal verbs in Middle English as a productive form*

Prefixed verbs in Old English were no longer productive in Middle English, and the loss of productivity was already evident in Old English, in which certain authors added a post-verbal particle to prefixed verbs, possibly because the prefix was losing meaning (Denison 1985: 47). Stress patterns also likely account for a shift, as prefixes in Old English compound verbs were unstressed, while post-verbal particles carried stress, making them stronger and thus preserving their lexical value. According to Fisher (1992: 386) the rapid borrowing of French verbs into Middle English slowed the development of phrasal verbs because of competition in semantic fields, as French brought in Romance verbs that could fill the semantic fields of the Old English prefixed verbs. During this period the coexistence of directional and telic meanings of the verbal particles increase, and later the telic meaning of the particle seems to be foregrounded. Moreover, there are more figurative uses of phrasal verbs and more pure particles. Finally, idiomatic senses of phrasal verbs begin to appear. Middle English underwent a shift in syntax from SOV to SVO as it lost many synthetic inflections (and consequently possible word orders) of Old English, becoming a much more analytic (or word-order based) language. The new VO word order, in the opinion of Akimoto (1999, cited in Lamont 2005), likely enabled the prefixes of Old English to become post-positioned adverbial particles. In other words, Old English *forbrecean* became ‘to break up’. By late Middle English, phrasal verbs could be divided into 3 categories: (a) Old English-style inseparable prefix+verb (*understand, overtake*); (b) phrasal verbs including verb+ separable particle (*take up, write up*); and (c) nominal compounds derived from the first two (*outcry, write-off*) (Fisher 1992: 386).

### 2.4.3 Phrasal verbs in Present-Day English

By the Modern English period verbal prefixes were no longer productive and the phrasal verb was fully established in the language. For example, prefixal combinations with *out* have a high degree of restriction in Modern English. According to Marchand (1969a: 96) “With a locative meaning, the particle has never had any verb-forming force. Verbs of the type **outbreak** ‘break out’ occur only in poetry and are equivalent to prose combinations of the phrasal type **break out**”. The original use is now very rare and archaic. Live (1965: 442) mentions that the prefix *out* is still productive and is “semantically consistent and transparent in the newer compounds”, while it is “often metaphorically obscured in the older ones”. Prefixal combinations are few in number and must be considered to be remains of an older system which have been subjected to lexicalisation to a large extent. There are a number of reasons proposed for a structural shift from prefixes to post-verbal particles. Curme (1913/14) explains the movement of particles to post-verbal position by a tendency to give particles more stress. Marchand (1969a) notices that English prefixes lost a power to express the idea of intensity, perfectivity with verbs. This function is now performed by postpositive particles, chiefly *up* and *out*, e.g. *finish up*, *use up*, *burn out*. De la Cruz (1972a: 79) emphasises an adverbial function in the particles, while Konishi (1958: 118), Traugott (1982: 250) explain the weakening of prefixed forms by the change in word order from OV to VO.

Modern English is the period marked by the appearance of a more complex form, the three-part phrasal-prepositional verb, which includes a verb, a post-positioned particle, and a complementary prepositional phrase. Examples of the first type include *put up with* and *do away with*, which qualify as phrasal verbs because they can be translated by the single Latinate verb ‘tolerate’ and ‘abolish’, although their particles are not movable: *I put up with the traffic every day*, but not *\*I put with traffic up every day*. A second variation of phrasal-prepositional verbs in Present-Day English takes a moveable particle around a noun-phrase direct object as well as a complementary prepositional phrase, as in *She fixed her friend up with her cousin/ She fixed up her friend with her cousin*. Thus, particle movement is a useful tool to analyse transitive phrasal verbs.

To sum up the discussion of the history of phrasal verbs the following can be said. Phrasal verbs developed because Old English prefixes were deteriorating and this deterioration came about due to the fact that it became impossible to establish clear-cut meanings for them. Post-verbal particles started to increase in Middle English as the “heavy functional load” (Hiltunen 1983a: 97) and caused the decline of verbal prefixes. The shift was

triggered by “the semantic weakening and grammaticalisation of the prefixes and the availability of phrasal forms of greater expressiveness” (Hiltunen 1983a: 98- 9). Semantically, the particles started to undergo semantic extensions, i.e. shift from concrete directional meaning to less concrete. The expansion of phrasal verbs occurred with the adoption of the Subject Verb Object (SVO) word-order. Finally, Present-Day English phrasal verbs became identifiable primarily by particle movement (when transitive) and stress (although there is a number of other syntactic tests which will be shown below).

The following section will show some syntactic considerations and criteria to identify phrasal verbs without aiming at completeness. The chapter below does not strive for discussing the advantages and disadvantages of different views found in the syntactic literature, but rather lists the tests in the form of summary to make the notion of phrasal verbs clearer and be able to distinguish a phrasal verb from a prepositional one.

## 2.5 Some syntactic tests for phrasal verbs

A number of tests have been suggested by grammarians to identify transitive phrasal verbs (verb+adverb combinations) and to distinguish them from prepositional verbs (Mitchell 1958, Bolinger 1971, Sroka 1972, Fraser 1976, Quirk et al. 1985, Palmer 1988 and more recent contributions by Sawyer 1999, Ishikawa 1999, Wurmbrand 2000, Zeller 2001, Dehé 2002 and others). The starting point will be the traditional grammatical approach as found in Quirk et al. (1985: 1163) supplemented by some other tests as shown in Radford (1988: 90-101). Let us now examine the tests one by one. All the examples below are adopted from Capelle (2004: 29- 31).

**1. Particle movement:** particles from transitive phrasal verbs can move either before or after the direct object, and this will determine whether the word in question is a particle or a preposition. For example, *Jill **ran up** a big bill/ Jill **ran** a big bill **up***. The word *up* is a particle because it can move. If it were a preposition, *up* could not move, e.g. *Jill ran up a big hill* but not *\*Jill **ran** a big hill **up***. Particle movement, and within it ‘particle adjacency’ to the verb, perhaps is the most striking property of transitive particle verbs (the term used by Dehé 2002, synonymous to the verb particle construction) in English which is referred to by Dehé (2002: 3) as the *continuous order* or *construction*. The continuous order is a criterion for the distinction between elements that can function as particles and elements that cannot. In general, particles in English are homomorph with prepositions (e.g. *up, out, in, off*) or simple

adverbs (e.g. *away, back, together*) (cf. Jackendoff 1973: 346, Emonds 1985: 253, Olsen 2000: 152). Therefore, it has been argued that the true test of a particle verb in English is the ability of the particle to appear adjacent to the verb stem in a position preceding the direct object, i.e. its appearance in the continuous order (Olsen 2000:152). Pure adverbs or prepositions cannot appear in this position.

**2. Adverb insertion:** adverbs such as *right, quickly, slowly, completely* cannot be placed within the verb phrase, including verb, particle, and object, but must be placed before the verb or at the end, e.g. *Jill quickly ran up a big bill / Jill slowly ran up a big bill*, but not *\*Jill ran [right up a big bill] / \*Jill ran quickly [up a big bill]*. Adverbs can, however, be placed between verbs and prepositional phrases, e.g. *Jill ran quickly [up a big hill] / Jill ran [right up a big hill]*. Neither manner adverbs nor any other adverbial can be inserted between the verb and the particle, but adverbs can be inserted between the verb and the preposition. Adverbial *right* cannot precede the particle, but it can precede the preposition.

**3. Spoken stress:** particles are stressed in phrasal verbs, but prepositions are unstressed (unless stressed emphatically in speech). Therefore, one can say, e.g. *Jill ran UP a big bill* (*up* is stressed- particle, transitive phrasal verb) or *The plane touched DOWN* (*down* is stressed- particle, intransitive phrasal verb). A true preposition is unstressed, e.g. *Jill ran up the hill* (unstressed-preposition, prepositional verb). Mitchell (1958:104) observes that “the particle component of the phrasal verb can and usually does bear a full stress, and when final and not in post-nominal position, it is pronounced on a kinetic tone”.

**4. Single-word synonym:** A normal preposition is frequently used in its basic, literal meaning, whereas the particle in a phrasal verb generally has a metaphorical or idiomatic meaning. For example, a sentence *John ran up a big bill* does not mean either John or the bill were literally moving up to a higher location, or that John was literally running. The meaning of the phrasal verb is often quite unpredictable.

Phrasal verbs can be expressed with a single-unit verb of the same illocutionary force. Thus *run up* in the example above can be paraphrased as the clearly transitive ‘incur’, while *touch down* can be paraphrased as the clearly intransitive ‘land’. The sequence *[up a hill]* is a prepositional phrase, as it can be replaced by other PPs with a related meaning, i.e. by *[down a hill]*, however, the sequence *[up a bill]* has no counterpart such as *\*[down a bill]*. Consider the sentences:

*\*Jill ran [up a bill] and Jack ran [down a bill].*

*Jill ran [up a hill] and Jack ran [down a hill].*

The distributional facts confirm that *run up* in *run up a bill* is a phrasal verb, whereas in *run up a hill* a prepositional verb (Radford 1988: 94). Single-word synonym, however, is not always reliable as the method of syntactic testing. Quirk et al. (1985: 1155- 6) discuss the possibility of paraphrasing certain prepositional verbs with single-unit transitive verbs. For example, the sentence *She looked after her son* could be paraphrased as *She tendered her son*. Obviously, *after* is not a particle, as it lacks stress and movement, but this style of analysis confirms the fact that other tests should be used when checking for phrasal verbs. Phrasal-prepositional verbs are also difficult to identify by this means alone.

**5. Passivization:** transitive phrasal verbs can be rendered in the passive for two reasons: a) because they are transitive and have the capacity for the inversion of subjects and objects, and b) because doing so does not violate the syntactic frame of a prepositional phrase. Thus the sentence *Jill ran up a big bill* can be rendered in the passive as *A big bill was run up by Jill*. However, prepositional verbs at least prescriptively resist being rendered in the passive, e.g. *Jill ran up a big hill* would not be rendered thus in the passive as *\*A big hill was run up by Jill*. As Quirk et al. (1985: 1165) conclude the acceptability of the passive is accounted for in terms of clause participant roles, i.e. noun phrases, as well as in terms of convention or idiomatic status. Both factors play a role in making the passive select the abstract metaphorical meaning in: *They went into the tunnel* ~ *\*The tunnel was gone into* but *They went into the problem* ~ *The problem was gone into*. We may, in fact, recognize a strong association between these factors, and therefore between prepositional passives and prepositional verbs.<sup>3</sup> Since, as Quirk et al. (1985: 1156-7) point out, prepositional verbs have been rendered increasingly in the passive (cf. *The picture was looked at by many people*), passivisation cannot be considered as a stand-alone syntactic test of phrasal verbs either.

**6. Clefting:** clefting is used when we want to focus or place special emphasis on a constituent. In a cleft sentence, the focussed constituent comes first and the material that occurs in the focussed position must be a complete constituent. The sequence [P+NP] can be clefted in *It was [up a big hill] that Jill ran*, where P in the sequence is obviously a preposition, while in *\*It was [up a big bill] that Jill ran*, the bracketed sequence does not form a constituent, and hence cannot be clefted, in this case *up* is the particle.

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<sup>3</sup> Cf. also Bolinger (1971: 7), who claims that passivization is limited in combinations with pure prepositions: *They talked about you* ~ *You were talked about* but *The house stands near the lake* ~ *\*The lake is stood near by the house*. Adpreps, however, would allow in virtually all combinations with *go* but exclude virtually also those with *come*: *He went into the subject carefully* ~ *The subject was gone into carefully* vs. *He came into a fortune* ~ *\*A fortune was come into*.



**7. Preposing:** Radford (1988: 95) notes that whole sequences can be preposed for special emphasis just as in clefting. Similarly, the preposed strings of words shown in brackets occur before the subject of their clause. Since only full phrases can undergo movement, [P+NP] must be a full phrase, and it is obviously a prepositional phrase. For example, [*Up a big hill*] *Jill ran*, where the sequence [*Up a big hill*] being a prepositional phrase allows preposing and in *\*[Up a big hill] Jill ran* the bracketed sequence cannot be preposed.

**8. Coordination:** to add to the issues above coordination is also a type of syntactic test to provide evidence about constituent boundaries. A general constraint on coordinate structures is that only constituents can be conjoined. As [*up a big hill*] is a PP constituent, it can be coordinated with another PP of the same type as in the following question *Did Jill run [up a big hill] or [up a small hill]?* While the sequence [*up a big hill*] is not a constituent of any type, it cannot be coordinated with another similar sequence as in *\*Did Jill run [up a big hill] or [up a small hill]?*

**9. Sentence fragment:** with respect to the above-mentioned, sentence fragment also assumes that if the string cannot occur as a sentence fragment, it is not a constituent. The following examples show that a normal PP can be used as a sentence fragment, but this does not work when the P is part of a phrasal verb, e.g. *Did Jill run [up a big hill]?-No, [up a small hill].* vs. *Did Jill run [up a big hill]?- \*No, [up a small hill].* This contrast provides additional evidence that the combination of particle plus NP does not form a constituent.

**10. Ellipsis and Gapping:** ellipsis is a general term referring to the omission (or deletion) of some element in a sentence which can be understood from the immediate context. Thus NPs can be omitted in the case of prepositional verbs, e.g. *Jill ran [up (the hill)],* but cannot in a phrasal verb, e.g. *Jill ran [up\*(a big hill)].* Gapping can only apply in coordinate sentences in which two clauses with parallel grammatical structure are conjoined. The following examples show that verbs can be gapped in the case of prepositional verbs but not in phrasal verbs, e.g.

*Jill ran [up a big hill], and Jack [up a small hill].* (verb gapping)

*\*Jill ran [up a big hill] and Jack [up a small hill].* (no verb gapping)

But verb and particle can be gapped together, while verb and preposition cannot, e.g.

*\*Jill ran up a big hill, and Jack, a small hill.*

*Jill ran up a big hill, and Jack, a small hill.*

**11. Shared constituent:** Capelle (2004: 30) notes that P+ NP can function as a shared constituent in the case of prepositional verbs, but not in the case of phrasal verbs. Consider:

*Jill ran – and Jack merely walked– [up a hill].*

*\*Jill ran – and Jack coughed– [up a bill].*

**12. Action nominalization:** action nominalization constructions can serve to distinguish verb-particle combinations from some but not all verb-preposition combinations. Fairclough (1965: 16), Bolinger (1971: 8) and Fraser (1976: 3) give examples of sentences showing that *of* in an action nominalization can appear between a particle and a following noun, but not between a preposition and a following noun, e.g.

*He looked up the information. (His looking up of the information)*

*He looked into the information. (\*His looking into of the information)*

Bolinger (1971: 8) notes that it is a useful test for culling out pure prepositions, but with adpreps it yields contradictory results.<sup>4</sup> Thus it would appear that *to run up the hill* and *to walk across the bridge* are parallel in every respect, yet the latter does not allow nominalization:

*The running up of the hill was a matter of minutes.*

*\*The walking across of the bridge was a matter of minutes.*

Bolinger explains that whether or not a verb-particle combination or verb-preposition combination can occur in an action nominalization is determined not by syntactic factors, but by the nature of the actions expressed. If the action can be topicalised, and it is thought of as

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<sup>4</sup> Bolinger (1971: 26-7) uses the term “adverbial preposition” for particles that oscillate between preposition and adverb. The variable status of the “prepositional adverb” (this term is used interchangeably with an adverbial preposition by Bolinger, but it is the adverbial rather than the prepositional use that is more relevant to Bolinger’s study) is illustrated by triply ambiguous sentences like *He ran down the road/ She swept off the stage/We backed up the stream*. If the particle is taken as an adverb, the corresponding pronominalizations will be *He ran it down.* (disparaged it)/ *She swept it off.* (cleaned it)/ *We backed it up.* (clogged it). If it is taken as a preposition, the pronominalizations and meanings will be *He ran down it.* (did his running somewhere down the road)/ *She swept off it.* (did her sweeping somewhere not on the stage) / *We backed up it.* (did our backing at some point upstream). The latter examples are purely prepositional and prepositional verbs, according to Bolinger (1971: 27), are not constituents, therefore are not phrasal verbs.

something that ‘gets done to’ the noun object, then an action nominalization should be possible. We can topicalize the running up of hills because it is something that ‘gets done to’ the hill, while we do not think of walking across as an action that ‘gets done to’ bridges. Let’s turn back to our examples and check for the possibility of action nominalisation in a verb-particle combination. Consider the following pair:

*Jill’s running up of a big hill was a matter of minutes.*

*Jill’s running up of a big bill was a matter of minutes.*

It is obvious that action nominalisation is possible in both cases thus this test fails to distinguish verb- particle from verb-preposition combinations and cannot be considered as an absolute and successful test for our purpose.

**13. Fronting or topicalisation:** in Quirk et. al’s (1985: 1163) opinion elements of a multi-word verb can occupy positions in a clause which a simplex verb cannot occupy at all or only with difficulty. Those are primarily front and final position, i.e. the most prominent places in a clause. The norm in English is the “principle of end-focus” with the final position carrying both most stress and most information value, but a kind of front-focus is also possible, cf. the process of fronting (Quirk et al. 1985: 1357). In this case, focusing is much more a question of emphasis, not of high information value, the fronted item usually being marked theme.

Generally, prepositional verbs allow fronting, but some phrasal verbs, namely the most literal ones, also allow their particle to be pre-posed. Idiomatic particle verbs do not allow fronting, e.g.

*Up which hill did Jill run?*

*\*Up which bill did Jill run?*

Capelle (2002: 56-7) argues that particle fronting is only allowed with particles that are semantically independent. The test that he gives for semantic independence is “the possibility to use the particle with the same meaning outside verb-particle constructions (e.g. after the copula *be*)”. It follows that idiomatic particles are not independent.

The syntactic tests above provide evidence that allows us to determine whether we have to deal with a phrasal verb or prepositional verb, but these tests should not be considered absolute in any sense and in a number of cases, as shown above, it is difficult to draw a borderline between these two combinations.

Some complications arise from the nature of verb particle combinations; the tests above dealt with idiomatic phrasal verbs, but literal, compositional verb particle combinations may be syntactically unlike in a number of ways. For example, particles in compositional verb particle combinations can be replaced by other particles from the same semantic class (e.g. send *up*, *in*, *back*, *away*), or can be contrasted with other particles (e.g. send *up*, not *down/in*) whereas particles in idiomatic verb particle constructions cannot (e.g. eat *up*, but *down*?). Still, as Capelle (2004: 32) notes, the application of the tests above whether to transparent verb particle combinations or idiomatic ones and prepositional verbs either with a directional or a fixed preposition will reveal the same contrasts, overall. A few tests will give different results, namely, NP ellipsis, antonym substitution, *right* insertion, and the passivization test. Fixed prepositions, especially, behave differently from most directional prepositions: *Jill decided on* is not comprehensible without an NP complement; *Jill decided off her wedding dress* is not acceptable; nor is *Jill decided right on her wedding dress*; conversely, the passive sentence *A wedding dress hasn't been decided on yet* is perfectly fine (cf. Capelle 2004: 32). Leaving aside such complications, the majority of the tests presented above will not fail to tell particles and prepositions apart. It seems justified, therefore, to treat particles as a category of words distinct from prepositions. These tests again serve to emphasize the complicated nature of both particle and prepositional verbs.

The next chapter will deal with literal and idiomatic verb particle constructions and we will make an attempt to show at least several clear differences between them. After showing a number of verb-particle classifications disclosed in the linguistic literature, we will try to give an acceptable verb particle classification needed for the present analysis.

### 3. THE SEMANTICS OF VERB PARTICLE COMBINATIONS AS REFLECTED IN SYNTAX

#### 3.1 Some notes on terminology

The subject of phrasal verbs is complicated by the way idiomaticity is dealt with. The concept of non-literal meaning has always been difficult to define, and it is no easier with respect to phrasal verbs, especially if one considers that many phrasal verbs exhibit a number of different meanings which range from completely transparent to completely idiomatic. At this point, it is necessary to clarify the general use of the terms “literal”, “figurative”, “transparent”, “opaque” and “idiomatic”. These terms seem to be used in an undifferentiated way in the literature. “Literal” is usually equated with “transparent”, and “figurative” with “idiomatic”, “literal” and “transparent” are used in opposition to “figurative” and “idiomatic” (cf. Dagut and Laufer 1985: 74, Laufer and Eliasson 1993: 37). Another relevant term used in opposition to “transparent” is “opaque”. It seems obvious that opaque phrasal verbs are always idiomatic (if we accept the definition of the term “opaque” from the *Oxford English Dictionary Online*<sup>5</sup> and the general consensus that the meaning of an idiom cannot be derived from the combined meaning of its parts). Sag et al. (2002) refer to this problem as that of “idiosyncrasy” – multiword expressions behave in ways that cannot be generalised from or to the rest of the language and the meaning of a multiword expression is frequently not what we would get by combining its parts in the usual fashion. In Sag et al.’s (2002: 2) terms, multiword expressions are “idiosyncratic interpretations that cross word boundaries (or spaces)”. However, for Quirk et al. (1985: 1163) the reverse does not seem to hold: “Putting a verb in the third category [‘highly idiomatic’ constructions] does not necessarily mean, however, that its meaning is completely opaque”. We do not agree with this view – if a construction is highly idiomatic, its meaning cannot be derived from the individual meanings of its elements – it is opaque.

Transparent phrasal verbs need not always be literal, although literalness always implies transparency, given that “literal” means that the overall meaning consists of the combined literal (basic non-figurative) meanings of verb and particle. Both literal and

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<sup>5</sup> The *Oxford English Dictionary Online* defines “opaque” as “not obvious in meaning; (of a word) that was originally a compound or derivative but is now a simplex, and so has a meaning that cannot be deducted from its form or sound”.

figurative phrasal verbs can be transparent; in fact, a large number of phrasal verbs are not used in the directional, spatial, or locative sense, but have undergone a figurative meaning extension. Thus, for example, in ***Bring** my books **back** from James*, the phrasal verb *bring back* retains its basic, literal meaning with the literal meaning of both elements; the meaning of the phrase is transparent, thus yielding a transparent phrasal verb. In *I wish you **brought back** the light again* (lyrics), *bring* does not involve the actual, physical aspect of “to take with oneself to a place” and *back* does not literally mean “at, to, or toward the rear or back” (*Webster’s II New College Dictionary* 1995: 139). What we have is actually a continuum of literal-figurative meaning in the verb and the particle. Even though the combination in the last sentence above is used figuratively, it is transparent and easy to understand. From this discussion it follows that transparency and idiomaticity are different things. If a phrasal verb is transparent (to whichever degree) it cannot be idiomatic. Some linguists also mention “semi-idiomatic” phrasal verbs (cf. Quirk et al. 1985: 1162)<sup>6</sup>. But rather than different degrees of idiomaticity, different degrees of transparency should be assumed with regard to phrasal verbs, though deciding whether the combination is transparent or not involves certain subjectivity. The example of figurative *bring back* will be easy to understand for most speakers of English, native and non-native. In other cases, much depends on the language knowledge of the learners. For example, some learners would recognise a phrasal verb such as ***bog down*** (a similar example of ***bog off*** is mentioned in Side 1990: 146) as a true idiom, because they do not know that ***bog*** means “wetland area; area of soft, naturally waterlogged ground” and the original sense of this phrasal verb is “to cause to sink in a bog” as in *The car get bogged down in the mud*, and that it figuratively means “to impede or be impeded physically or mentally”, as in *She get bogged down many times while she wrote her dissertation* (*The Free Dictionary Online*). The main communicative function of this phrasal verb is carried by both the verb and the particle. A further problem is with the transparency of Quirk et al.’s “semi-idiomatic” and which Jackendoff (2002: 76) calls “aspectual PVs”. The verbal element of these phrasal verbs in general keeps its original meaning, while the particle specifies the verb. The particles in aspectual PVs can mark completeness, such as *up* in *drink up the milk* and *eat up the cake* or, in a more specific and restricted case, they indicate the

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<sup>6</sup> According to Quirk et al. (1985: 1162), “semi-idiomatic” phrasal verbs are “variable constructions but in a more limited way. The relation between the verb and particle is similar to that between a stem and an affix in word formation, in that the substitution of one verb for another, or one particle for another is constrained by limited productivity”. For example, in a phrasal verb such as *find out* ‘discover’, the verb word keeps its meaning, whereas the meaning of a particle is less easy to isolate.

continuation of an action such as *away* in *sleep the day away*. In these combinations, particles lose their literal, directional meanings, but the new meanings become tangible only in context. Thus, according to Jackendoff (2002: 79- 80), *through* adds an aspectual meaning that can be paraphrased by *from beginning to end* (*play the aria through/ from beginning to end*), whereas aspectual *over* means *again* (*write the paper over/again*). Although now it seems relatively easy to differentiate between literal and idiomatic phrasal verbs, a clear-cut distinction in many cases is futile. Fraser (1976: 7) even claims that “the systematic cases amount to only a small part of the total part of the total verb-particle combinations in the language”. He identifies the dominant group as “those in which we have nothing but a frozen form” (Fraser 1976: 5- 6). From this suggestion it follows that the majority of verb-particle constructions are unanalysable. While we may agree that there exists a class of unanalysable verb particle combinations, the suggestion that the majority of these constructions are unanalysable is wrong. Nevertheless, the unanalysable verb particle combinations seem to constitute a significant group. A number of writers expressed doubts about the distinction of analysable from unanalysable VP combinations. For example, Gries (2003: 16) argues that “the meaning of a verb phrase cannot always be categorised as being fully idiomatic or totally literal– rather there are many cases where the meaning is somewhere between two extremes”. Bolinger (1971:16) notes that “the literal uses lie at the core, and figurative ones surround them at varying distances”. But probably the most successful explanation of the issue is given by “space grammar” (Langacker 1991). Lindner (1983: 29), for example, points out that “every analysis posits a group of VPCs for which the particle is not viewed as bearing any meaning of its own” and criticizing Fraser she claims that “the particles invariably do code some part of the meaning of the VPC [...]. In order to recognise the meaningfulness of the particle, however, it is necessary to recognise more than just the single ‘literal’, or concrete meaning” (Lindner 1983: 54). She herself and other cognitive grammarians (Lakoff 1987, Rudzka-Ostyn 2003) recognise particles as lexical items which constitute natural categories of senses and these senses are related to the prototypical senses.

The following section will provide a short analysis of transparent vs. idiomatic verb-particle combinations within the framework of traditional grammar with the application of some syntactic tools as it seems likely at this moment that the syntactic analysis of the verb particle combinations can yield better results.

### 3.2 Transparent vs. idiomatic verb particle constructions

As has been mentioned above, English verb particle combinations contain particles (e.g. *She put the hat **on***) that are homophonous with prepositions (e.g. *It is **on** her head*). Particles are interesting because, unlike prepositions, they can appear on either side of the object, and accepting Dehé's (2002: 3- 4) terminology these are "adjacent PVs" (i.e. the verb and particle are adjacent). Particle verbs exhibiting the verb-object-particle order are termed "split PVs". Consider:

- (1) a. *She **put on** her hat.* (adjacent PV)
- b. *She **put** her hat **on**.* (split PV)

The syntactic analysis we wish to adopt at this moment for the structure of English verb particle combinations embodies the observation that they fall into two classes: transparent particle verbs and idiomatic particle verbs (also maintained by Ramchand & Svenonius 2002; Sawyer 1999; Wurmbrand 2000).

The meaning of transparent particle verbs is compositionally determined by the meaning of the verb and particle, whereas idiomatic particle verbs are non-compositional. For example, the particle verb *threw out* in *She threw the garbage out* is transparent; 'the garbage' becomes literally 'out'. However, for idiomatic verb particle combinations, the independent meaning of one or both elements is not retained and the particle verb receives an idiomatic interpretation. As an example, in the sentence *She **mixed** the butter **up***, 'the butter' is not literally 'up'. The lack of compositionality in idiomatic particle verbs like *mix up* compared to the compositionality of transparent particle verbs like *throw out* suggests that their representations may also be different. However, the differentiation between transparent and idiomatic particle verbs is not as simple as it looks at first sight. Wurmbrand (2000) notes that the semantics of verb particle constructions are gradable and that "it is not always obvious how to draw the line between transparent and idiomatic PVCs" (Wurmbrand 2000: 5). Below we will show some syntactic tests provided by Wurmbrand (2000) to shed some light on this issue.

One of her successful tests to show the difference between the combinations is the **focus** test, i.e. demonstration that transparent particles can be stranded in cleft constructions, while idiomatic particles cannot. The following sentences successfully confirm this fact (the examples below are adopted from Gilkerson 2006: 42 based on Wurmbrand 2000):



- (2) a. *Where she put her glass was down. (not away)*  
 b. *How she pulled her box was up. (not down)*  
 c. *It was down that she pulled the glass. (not away)*  
 d. *It was up that she pulled the box. (not down)*
- (3) a. *\*Where she wrote her name was down. (not up)*  
 b. *\*How she woke the dog was up. (not down)*  
 c. *\*It was down that she wrote her name. (not up)*  
 d. *\*It was up that she woke the dog. (not down)*

Wurmbrand (2000: 4) claims that the sentences like those in (3) are ungrammatical because idiomatic particles cannot receive a focus interpretation. However, transparent particles can receive a contrastive interpretation, as indicated by the grammaticality of the sentences in (2).

Further evidence for a semantic difference between transparent and idiomatic particle verbs is found in the domain of **constituent negation**. Assuming that constituent negation is a focus construction, the sentences in (4) show that transparent particle verbs can have a contrastive focus interpretation in negation contexts while the idiomatic particle verbs in (5) cannot (from Wurmbrand (2000: 5), as exemplified in Gilkerson 2006: 42- 3):

- (4) a. *Melinda pulled her socks not up, but down.*  
 b. *Frank put his cap not off, but away.*
- (5) a. *\*Francis cut the tree not down, but up.*  
 b. *\*Mike rolled the sleeping bag not up, but out.*

Again, the ungrammaticality of the sentences in (5) can be attributed to the fact that idiomatic particles are non-compositional, they cannot receive a focus interpretation because they are meaningless without the verb.

Additional differences between transparent and idiomatic particle verbs Wurmbrand sees in in **gapping** and **coordination constructions**. As (6) and (7) show, transparent particle verbs can be gapped and they can serve as constituents in coordination constructions, while idiomatic particle verbs cannot (the examples below are from Gilkerson (2006: 43) based on Wurmbrand 2000).

- (6) a. *Susan pulled her pants up and Jenny [ ] her socks up.*  
 b. *Greg took his shoes off and Dave [ ] his coat off.*  
 c. *She pulled her pants both down and off.*  
 d. *She took the cup both out and away.*
- (7) a. *\*Alex blew the ballon up and Sue [ ] the raft up.*  
 b. *\*Rob locked the bike up and Matt [ ] the motorcycle up.*  
 c. *\*She wrote her name both down and off.*  
 d. *\*She cut the tree both down and up.*

Wurmbrand (2000: 2) mentions that the grammaticality of the sentences like those in (6) and the ungrammaticality of the sentences in (7) appear to be related to **locality**. As sentences in (6a-b) indicate, transparent particles may be in a non-local relationship with an overt verb; the particle in the gapping clause is related to the overt verb in the antecedent clause. The sentences in (7a-b) are ungrammatical, because the idiomatic particle and overt verb must be in a local relationship, but they are not. Similarly, the particle in transparent particle verbs can be related to a non-local verb outside its coordinate conjunct (6c-d), while the particle in idiomatic particle verbs cannot (7c-d). Thus, these sentences again confirm the fact that the idiomatic particle and verb must be in a local relationship. All of these considerations above prove the importance of transparent and idiomatic particle verbs.

The aim of this section has been not to give a profound syntactic analysis of the above-mentioned semantic classes, but rather following Wurmbrand (2000), who gave a detailed syntactic analysis of German and Dutch particle verbs, try to show some syntactic tools which enable us to make a distinction between these problematic classes. The arguments for this distinction come from a number of syntactic properties of particle verbs like focus position, constituent negation, gapping, coordination constructions and locality. Although further examinations of verb particle constructions (e.g. interpreting verb particle constructions in terms of small clause structure for transparent particle verbs and complex V-structure for idiomatic particle verbs) may reveal additional evidence to support the existence of these classes, the present analysis has aimed at showing only a few straightforward means to confirm the fact that in English at least two classes of verb particle constructions should be distinguished – **transparent and idiomatic verb particle constructions**.

The next section will look at the different classifications of verb particle constructions found in the linguistic literature and an attempt will be made to set up the most appropriate classification applicable for the present study.

### 3.3 Classifications of verb particle constructions

In the literature the classifications of verb-particle combinations were carried out not only with respect to their semantic properties, but also with respect to their syntactic behaviour. For example, Fraser (1976) noted how semantic properties of verbs can affect their possibilities of combination with particles (e.g. *hunt/track/trail/follow down* and *bake /cook/ fry/broil up*). Semantic properties of verbs can influence the patterns of combinations that they follow (e.g. verbs of hunting and the resultative *down* as well as verbs of cooking and the aspectual *up*). By having a semantic classification of verbs we can determine how they combine with certain particles, and this can be used to extend the available combinations by productively generating verb particle combinations from classes of related verbs.

In the literature a common distinction is between three groups: (1) semantically compositional or transparent particle verb (further PV) constructions; (2) non-compositional or idiomatic PVs and (3) aspectual PVs. The meaning of the compositional PV consists of the literal meaning of the verb and the literal meaning of the particle, the particles in these combinations have directional or spatial meaning; idiomatic PVs form a semantic unit whose meaning is not fully predictable from the meaning of its members; in aspectual PVs, the particle adds an aspectual interpretation to the verb. Perhaps the most productive particle in aspectual PV constructions is *up*, which adds telic interpretation to the verb. Although we mentioned above a threefold distinction of verb particle combinations, many linguists (e.g. the above discussed Wurmbrand 2000, Ramchand & Svenonius 2002, Zeller 2001, etc.) maintain only a two-way classification of transparent and idiomatic particle verbs, excluding the aspectual class. Let us now examine the various classifications in the literature.

A threefold distinction can be found in Emonds (1985: 252). He calls particles “directional adverbs” which, in fact, correspond to the spatial, directional particles in compositional PVs. Aspectual particles are used in “completive” verb-particle combinations in Emonds’ (1985: 253) terms. Similarly, Jackendoff (2002) distinguishes idiomatic PVs, directional PVs and aspectual particle verbs. Jackendoff (2002: 73- 6) mentions that idiomatic particles in combinations like *look up* ‘search for and find’ and *throw up* ‘vomit’ lack the

appropriate directional meaning, they are meaningless without their verb. In the directional PV construction, particles occur with verbs that select a directional (Path) PP, such as *carry in/away/back*. In Jackendoff's (2002: 75) opinion, the particle in these uses satisfies one of the verb's argument positions and the meaning is fully compositional. In his third group, Jackendoff (2002: 76) gives numerous examples of aspectual particles, that can mark completeness. Thus he mentions that *up* can occur with a huge number of verbs like *eat, drink, guzzle, close, finish, clean, wash, boil, fry, bake, fill, cover, pack* and the meaning is fully predictable. He further mentions that this aspectual *up* should be listed as an independent lexical item, free to combine with verbs that meet its selectional restrictions.

Ishikawa's (1999) classification (mentioned in Dehé 2002: 7) involves verb particle combinations of three types. The criteria his suggestion is based on are the following: (1) does the particle retain its own meaning within the verb particle combination, where particle meaning can be either literal, i.e. spatial or directional, or completive, i.e. aspectual; (2) do the selectional properties of the verb change when it combines with a particle. Let us see the classification of PVs according to Ishikawa (1999). (The examples below are from Ishikawa (1999: 331)).

1. Simple combination type:

*He cut the branches off.*

2. Pure idiom type

*The store keepers took the students in.*

3. Hybrid idiom type

*I'll look the information up.*

In PV combinations of the simple combination type, particles retain their own meaning and the selectional properties of the verbs are not changed. As Dehé (2002: 8) notices, in (1), *cut* selects a Theme argument just like in the simple counterpart *He cut the branches*. The particle *off* is used in its literal meaning. Particles in PV combinations of the pure idiom type in the sense of Ishikawa (1999) lose their own meaning. Moreover, there is a change in the selectional properties of the verb. In (2), the combination *take in* is used in the meaning of *deceive*. Dehé (2002: 9) remarks that both verb and particle lose their original meaning and the selectional properties of the verb change in that *take* selects an animate object which it does not in regular cases. In combinations of the third type suggested by Ishikawa, the hybrid idiom type, particles retain their meaning, but the selectional properties of the verb change. In

(3), *look up* is idiomatic since its meaning is not a combination of the meaning of its parts. However, according to Ishikawa (1999: 332), *up* is used literally in the meaning of “completion”, “temporal end point”. The selectional properties of *look* are changed, since *look* is not normally used with a DP complement as in \**He looks the word* or \**He looks the street* (Dehé 2002: 9).

Apart from the threeway classification, a number of authors distinguish between two groups of verb particle combinations, namely semantically transparent/compositional verb particle combinations on the one hand, and idiomatic verb particle combinations on the other hand. Both Aarts (1989) for English and Wurmbrand (2000) for German distinguish the two classes on the grounds of differences in their syntactic behaviour. In Aart’s (1989) work, compositional PV’s are termed spatial-resultative PVs. The possibility to replace, contrast and topicalise particles in compositional verb particle constructions in Wurmbrand were shown in the previous chapter. However, Dehé (2002: 10) mentions that these classifications are not undisputed for various reasons. Most importantly, besides syntactic differences between compositional and idiomatic PVs there are also syntactic similarities. Both compositional and idiomatic verb particle combinations behave alike in the following syntactic surroundings: for example, they both undergo nominalisation as in:

- (1) *His tossing up of the ball.* (compositional verb particle combination) (Dehé 2002: 10)  
*His figuring out of the problem.* (idiomatic verb particle combination)

Particle preposing in question formation is disallowed for both groups, e.g.

- (2) \**Up what did he toss?* (Dehé 2002: 10)  
 \**Out what did he figure?*

Based on these similarities, Lindner (1983, mentioned in Dehé 2002: 11) rejects analyses that suggest separate syntactic structures for compositional vs. idiomatic verb particle combinations. Moreover, the semantic differences between the verb- particle classes do not seem to be clear cut, either. Gries (2000: 17) gives the following example:

- (3) *It has taken many years to **bring the town up** to the standard.*

He argues that the meaning of *bring up* is “definitely not literal since *the town* has not been moved to a spatially higher position”, but that the meaning is not fully idiomatic, either.

In the present study we wish to use the classification between three kinds of verb particle combinations in the sense of Emonds (1985), Jackendoff (2002) and Dehé (2002), namely:

1. verb particle combinations with locative or directional meanings;
2. idiomatic verb particle combinations;
3. aspectual verb particle combinations;

But, as is mentioned by Dehé (2002: 10), even a three-way classification is not without flaws. Thus we feel that the present classification should be more detailed to be able to recognise whether or not a given verb-particle is compositional and to capture the various ways in which different word forms can contribute to the meaning of constructions. On the basis of the above classification, it is reasonable to propose such a more detailed classification that can show whether a verb or particle contributes its simplex meaning to a verb particle combination. Each verb particle combination can therefore be classified as falling into one of four classes:

1. Both the verb and the particle contribute their simplex meaning (e.g. *take a mug out of a box*).
2. The verb but not the particle contributes its simplex meaning (e.g. *hand out the brochures*).
3. The particle but not the verb contributes its simplex meaning (e.g. *fish out the ring*).
4. Neither the verb nor the particle contributes its simplex meaning (e.g. *snap up a house*).

This detailed classification can be justified on two grounds. First, it would allow us to identify those items which cannot be dealt with by the usual tools of the grammar. Second, this distinction will enable us to isolate those instances which need special consideration, and would aid in observing greater systematicity of verb particle constructions. Even having this detailed classification, it is not trivial for a speaker or a learner to decide whether a given verb or particle is contributing a simplex meaning. The criteria we chose to use will essentially help to decide whether the semantics of the simplex verb or particle can be used

to decompose the construction and examine the productivity of the construction as a whole and in isolation.

The next section's aim is to show that verb particle constructions are a peculiar property of not only English, but Germanic languages as well and to confirm the existence of these combinations (although in a different form) in Hungarian with special emphasis on their semantics. In particular, we will try to show some evidence that Hungarian coverbs contribute to the aspectual properties of the verb and most significantly to the Aktionsart of the combinations.

### 3.4 Cross-linguistic studies of verb-particle constructions with special reference to Hungarian

Apart from English, verb-particle constructions have been attested in Germanic languages, e.g., Neeleman & Weerman (1993), Booij (1990), van Marle (2002), Blom (2005) for Dutch; Stiebels and Wunderlich (1994), Lüdeling (2001), Müller (2002), Olsen (1996, 1997b), Wurmbrand (2000) for German; Svenonius (1994, 1996a, b), Toivonen (2002) for Swedish and Jansen (2002) for Danish. In addition, verb particle constructions have also been identified in Italian (Simone 1997, Iacobini and Masini 2007) and in Ugro-Finnic languages such as Estonian (Ackerman & Webelhuth 1998, Ackerman 2003) and Hungarian (J. Soltész 1959, Szili 1984, 1988, É. Kiss 1998, 2006, Kiefer 1992, 2000).

Over the last decade, in Generative Grammar there has been an increasing interest in verb particle constructions in the Germanic languages, which was mainly due to their ambiguous structural status between words and phrases (cf. the introductory chapter in Dehé 2002). The issue which caused the greatest concern for the linguists has been whether they belong to morphology or syntax. To disambiguate the issue, there were a series of syntactic and semantic criteria proposed to demonstrate the word-like or phrase-like status of these constructions. A number of different syntactic solutions were put forward to account for the properties of verb particle constructions, from the Small-Clause analysis (among others, Wurmbrand 2000) to “non-projecting word” proposal for particles (Toivonen 2003). Besides syntactic aspects, psycholinguistic aspects of verb particle constructions have also been considered, such as the behaviour of particle verbs in speech production and processing

(Drews, Zwitterlood et al. 1994; Hillert 1998; Urban 2002) and language acquisition (Hyams, Johnson & Schaeffer 1993; Bennis et al. 1995 among others).

However, until today, generative grammarians have not reached a general agreement on the kind of structure to assign to verb particle constructions. Among many contributions, Wurmbrand's (2000) analysis of West-Germanic VPCs is worth mentioning again, which involves two independent, i.e. not derivationally related structures: *small clause structure* and *complex head structure*. Wurmbrand (2000: 1) argues that the choice between these two structures is predictable from the semantics of VPCs, which are either transparent or idiomatic. Wurmbrand (2000: 5) notes that the semantics of VPCs are gradable and that "it is not always obvious how to draw a line between transparent and idiomatic PVs". The test she provides to facilitate the classification involves establishing whether a particle in verb particle constructions allows for contrastive particles. Wurmbrand argues that VPCs with transparent semantics reflect a small clause structure, while VPCs with an idiomatic meaning represent a complex head structure. But, as Elenbaas (2007: 70) observes, where Wurmbrand fails is to capture the important fact that the word order alternation is available for both transparent and idiomatic VPCs.

Another perspective on the issue was introduced by Booij (2002a, b), Booij and Kemenade (2003) for Dutch. In their contribution, Booij and Kemenade (2003: 8) claim that VPCs in Dutch (i.e. so-called Separable Complex Verbs) are the case of "periphrastic word formation", i.e. lexical items that behave functionally as complex words but display a phrasal structure. These complex words are regarded as "constructional idioms" (this notion was also used by Jackendoff 1997, 2002b), i.e. semi-specified syntactic structures with a (partially) non-compositional meaning that are stored in the lexicon and display limited productivity. Booij and Kemenade (2003: 8) state that their proposal is in line with the basic principles of Construction Grammar (represented by Goldberg 1995), which is based on the idea that the primary unit of grammar is the grammatical construction rather than the atomic syntactic unit and the rule that combines atomic units, and the grammar of the language is made up of constructions. Thus we have an interaction and interdependency of morphology and syntax and trying to find a demarcation line would seem useless, but given this, VPCs are no longer an anomaly from the point of view of the structure.

The constructionist standpoint helps to deal with the semantics of VPCs, and in particular with their actional properties with respect to their verbal bases and the kind of particles used. Although, as seen above, most studies deal with the syntactic properties of VPCs, in Italian, we find clear examples of a semantic approach towards these constructions.



Iacobini and Massini (2007) proved that Italian post-verbal particles, besides specifying locative information, contribute to the Aktionsart of verbal bases by virtue of a metonymic re-interpretation of their locative meaning. Moreover, many scholars have also approached particles cognitively. Rudzka-Ostyn (1985) has discussed the metaphorical connections between the spatial and metaphorical meanings of the Dutch *uit* and the Polish *wy* prefixed verbs.

Hungarian verbs with coverbs ('coverbs' often referred to as 'preverbs' or 'particles' in the literature) have been a traditional topic for research in Hungarian linguistics, however, they have succeeded in catching the fullest attention of the scholars only recently. Numerous scholars have analyzed the syntax of Hungarian coverbs (Horvath 1986, É. Kiss 1987, Piñon 1991). It is worth mentioning the recent publications by É. Kiss (2004, 2005), in which the author has outlined a theory of the verbal particle that can predict when a Hungarian verb takes a verbal particle and when it does not. Laczkó (2010) has also contributed a great deal to the study of verb particle constructions in Hungarian. He has examined the verb particle constructions within the theoretical framework of Lexical-Functional Grammar, which is capable of handling both the lexical and syntactic properties of verb particle constructions. However, only a few studies have addressed the morphosemantic features of verbs with coverbs in Hungarian (Kiefer 1992, Ladányi 2000). Some scholars have discussed the role of coverbs in the expression of aspect in Hungarian (cf. Wacha 1983, Kiefer 2000). In fact, Wacha (1976) was the first to raise the issue of aspect, the degree of realization of an action and the necessity to distinguish the categories of 'manner of action' and 'quality' of an action in Hungarian. Other scholars have studied the meanings of the Hungarian coverbs within the framework of cognitive semantics, e.g., Szili (2003, 2005) has examined the conditions under which the Hungarian preverbs *be* 'in' and *ki* 'out' with directional meanings underwent semantic bleaching that resulted in a perfectivizing role of the preverbs and their various Aktionsart-forming functions. More recently, Imre (2010) has given a profound examination of the meanings of the Hungarian coverbs and those of the English particles from the cognitive perspective. The discussion below will try to shed some light on the semantic nature of coverbs in Hungarian.

Although traditionally placed within the class of preverbs in the Hungarian linguistic literature (Tompá 1948, Soltész 1959), these elements have also been recognised as prefixes or coverbs.<sup>7</sup> Piñon (1991: 1) mentions that the Hungarian preverb is roughly the equivalent

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<sup>7</sup> Cf. also Rounds (2001).

of the English particle, though the inventory of preverbs in Hungarian is much larger than that of particles in English. To avoid terminological confusion, in this paper we will refer to the preverbal element in Hungarian as the coverb. All Hungarian coverbs are separable (due to the fact that Hungarian is an agglutinating language unlike English); they are called coverbs because their canonical position is immediately before the verb. Thus English verb-particle constructions correspond to verbs with coverbs (the term used hereafter in the present dissertation) in Hungarian.

Both earlier and recent studies have pointed out that the most important function of coverbs in Hungarian is to derive new words (Soltész 1959) and modify the meaning of the verb (Szili 1984); more recent contributions have emphasized that coverbs express a number of aspectual meanings (perfectivizing function) and Aktionsart meanings (Kiefer 1992). The most common coverbs in Hungarian are *fel-* ‘up’, *meg-* (perfective), *le-* ‘down/off’, *be-* ‘in’, *ki-* ‘out’, *el-* ‘away’, *vissza-* ‘back’, *át-* ‘over/through’, *oda-* ‘there’, *ide-* ‘here’, *össze-* ‘together’, *szét-* ‘apart’. From the semantic point of view we distinguish **literal** meanings of verbs with coverbs but they can also have figurative, **idiomatic** meanings. For example, literal meanings of verbs with coverbs are tangible in the following cases: *leír* ‘lit. write down’, *beír* ‘lit. write in/ into’ as opposed to the idiomatic *leír* ‘declare as useless, cf. write off’, *beír* ‘give a written warning [to a schoolchild]’. Different coverbs can express subtle differences, e.g. *meghízik* ‘get fat’ vs. *elhízik* ‘get obese’ as well as independent concepts, e.g. *rúg* ‘kick’, *kirúg* ‘fire sb’, *berúg* ‘get drunk’. They often serve to change the verb into perfective. When the coverb precedes the verb without any inserted word, they are used as one word, e.g. *Leírja* ‘He writes it down’. Syntactically, the coverb may go behind the verb for various reasons: it may occur in post-verbal position due to a stressed part in the sentence which comes before the verb (the **focus**), e.g. *Ő írja le* ‘It’s HIM who writes it down’ or **negation**, e.g. *Nem írja le* ‘He doesn’t write it down’. The inverted order is also used in the imperative, e.g. *Írja le* ‘Write it down!’ Finally, post-verbal position may also denote **continuity** as in *Lement a lépcsőn* ‘He went down the stairs’ vs. *Ment le a lépcsőn* ‘He was going down the stairs’.

Thus, from the short discussion above it is obvious that verbs with coverbs in Hungarian have a complex character, and certain syntactic tests may provide somewhat plausible explanations for the phenomenon of coverb separation from the verb base. The syntactic structure of verbs with coverbs will be left out of discussion as it does not suit the purpose of the present dissertation. The subsequent chapters will highlight the morphosemantic analysis of particle verbs and will deal with the discussion of aspectual and

Aktionsart meanings of the Hungarian verbs with coverbs, as opposed to those of English verb particle constructions.

## 4. MORPHOLOGICAL PRODUCTIVITY IN WORD FORMATION

Morphological productivity<sup>8</sup> is a multi-faceted phenomenon; as Plag (2006: 547-549) shows, it is a derived notion instead of a theoretical primitive, but potentially useful in describing word formation. The aim of this chapter is to clarify the concept of morphological productivity, providing some theoretical background on the issue and to show the criteria for productive derivational processes, in particular for establishing productive verb particle classes in the present investigation, as well as to highlight the constraints which can help to identify which formations of a verb and a particle can be called productive.

### 4.1 Defining “Productivity”

In the English and Germanic linguistic literature the term “productivity” has been defined by many scholars (Jespersen 1942, Hockett 1958, Aronoff 1976, Booij 1977, Bauer 1983, 2001, van Marle 1992, Baayen and Lieber 1991, 1994, Schultink 1992 b, Dressler 1997, Plag 2004 and many others). In Jespersen (1942: 4), who was perhaps the first to explicitly mention the notion of productivity in English word formation, the term “productive” is equated to “living” formations. Bauer, examining Jespersen’s term, agrees that these formations “remained living and productive on account of their strongly-felt meaning” (Bauer 2001: 11). Hockett (1958: 575) gives the label “productivity” to the property of language which allows us to say things which have never been said before, Chomsky (1965: 6) calls this feature “creativity”. In Bauer’s earlier work (1983: 63) productivity refers to a language pattern accounted for by the rules which enables us to create new words in a free manner. Later Bauer (2001: 2) concludes that in morphology it is more or less common agreement that productivity is the creation of new lexemes and word-forms, never heard or spoken before. As Hockett (1958: 307) puts it “the productivity of any pattern – derivational, inflectional or syntactical – is the relative freedom with which speakers coin new grammatical forms by it”.

Besides an attempt to give a plausible definition of the term “productivity” there is a disagreement among scholars about what it is that is productive. For some scholars particular affixes are productive (Lulofs 1835: 157), for others it is morphological processes which are

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<sup>8</sup> When we refer to morphological productivity, it generally means the productivity of morphological processes and/ or productivity of affixes.

productive (Anderson 1982: 585, cited in Bauer 2001: 12), yet for others, it is rules which are productive (Aronoff 1976: 36), for a very few it is words which are productive (Saussure 1969: 228), for some it is groups of processes which are productive (Al and Booij 1981: 32). By and large these various descriptions can be seen as differing statements of a single phenomenon, with a greater or lesser degree of specificity. Bauer (2001: 13) mentions that in order to avoid the unwanted implication that only affixation can be productive, he prefers to assign productivity to morphological processes. The difference between saying that productivity is a feature of morphological processes and saying that it is a feature of rules seems to be just a matter of the author's conception of grammar. The rule is a precise statement of how the morphological process operates. Bauer (2001: 13) concludes "saying that the process is productive presupposes the reality of the process, saying that the rule is productive presupposes the reality of the grammar". Bauer does not see any empirical difference between these two versions. Following Bauer, in order to avoid unwanted implications we prefer not to distinguish between the productivity of rules and morphological processes in this paper. As for the productivity of derivational morphology, Bauer (2001: 14) mentions that it is productive to the extent that individual derivational processes are productive.

The concept of a productive word formation rule was elaborated in detail by Aronoff (1976, 1980), who stresses the importance of productivity first in static and later in dynamic terms. He rejects the synchronic view saying that "it can only tell us about the actual words of the language... and nothing about the possible words" (Aronoff 1980: 72) revising his earlier work cf. Aronoff 1976, Chapter 3) and claims that "within a dynamic framework, the productivity of a given rule at a given time would tell us how likely it is that a new word will be used which is formed according to that pattern rather than according to another. The more productive the rule, the more likely the word" (Aronoff 1980: 72). Thus, in Aronoff's view, productive processes build the possible complex words of a language: they may not still exist, but nevertheless conform to the morphological rules of that language. Ladányi (2001: 233), however, disagrees with this approach saying that productivity and possibility to form a word according to some pattern do not always correlate as it is possible to make new words using unproductive processes and at the same time individual words coined by productive processes may become lexicalised. Dressler (1981: 428) lists a number of neologisms made on the basis of unproductive rules, for example, *kissgranny* appeared on the analogy of words like *pickpocket*. But where we think Aronoff is right is that productivity "goes hand in hand" with semantic compositionality: any complex word whose properties are completely predictable

from the interaction of the Lexicon and the set of word formation rules is a possible word that does not need to be listed and the related word formation rule is a productive one. Different though these approaches may be, it is commonly agreed that productive processes or rules have greater significance than unproductive, because creating potential words, the productive processes enrich the vocabulary of the language (Dressler-Ladányi 1998).

Within morphology the term “productivity” is defined as the property of an affix or morphological process to give rise to new formations on a systematic basis (cf. Adams 1973: 197, Bauer 1983: 18, Spencer 1991: 49, Plag 2003: 44). For instance, the suffix *-ness* in English displays a high degree of productivity and so, it is widely used in the creation of new words. On the contrary, the suffix *-th* is regarded as unproductive (exemplified in Bauer 2001). Plag (2004: 4) argues that such a definition may suggest that productivity is an “all-or-nothing property of morphological processes” (Plag 2004: 4). Bauer (2001), however, advocates such an approach, dividing productivity into two distinct phenomena, one of them qualitative, the other quantitative in nature: availability and profitability. A morphological process is available if it can be used to produce new words. “Availability is a yes/no question: either a process is available or it is not” (Bauer 2001: 205). Profitability, on the other hand, is a quantitative notion and refers to the extent to which a morphological process gives rise to new pertinent formations. In a qualitative approach to productivity, morphological processes or affixes either can give rise to new formations or cannot (Booij 2002: 10). Some scholars (Bolinger 1948, Bauer 1992a, Aronoff 1976, Hay and Baayen 2002) view productivity as a quantitative notion, that is, productivity is a matter of degree, and certain morphological processes or affixing processes are more productive or less productive than others. In other words, morphological processes and affixes are not clearly divided into productive and unproductive ones and the concept of productivity is a gradable phenomenon (Bauer 1992).

Following Booij (2002), in the present paper we wish to claim that productivity is a qualitative notion. Booij (2002: 9) advocates an approach that all morphological patterns can and should be described in terms of rules. Kastovsky (1986: 585-86), supporting the rule-governed approach to productivity, mentions that when we are talking about the productivity of a given word-formation rule, two aspects should be kept in mind: rule scope (the number and type of constraints imposed on the rule) and application rate (frequency of actual application of the rule in performance as measured in terms of the number of attested formations). In this rule-governed approach, the concept of productivity is determined by constraints imposed on an applied rule. The concept of productivity is primarily a qualitative notion rather than quantitative, i.e. explained by the semantic features of the domain the rule

applies to and not by the number of the newly coined words.<sup>9</sup> (Ladányi 2001: 233, among others).

Back in 1948, Bolinger explicitly put forward the idea that productivity is a probabilistic notion, defined as “the statistical readiness with which an element enters into new combinations” (Bolinger 1948: 18). Since then, a number of productivity measures have been proposed that try to mathematically model the notion of productivity.

As a way to measure productivity, Aronoff (1976: 36) proposes to calculate the ratio of possible words to actual words. Actual words designate existing established words, and possible words refer to all words that could be morphologically well-formed and produced by the pertinent word-formation rules. Therefore, the productivity of the morphological process is high if the ratio of possible words to actual words is high. The important point that Aronoff makes is that no affix can be said to be absolutely more productive than any other affix (or morphological process); productivity has to be tied to particular base types. This approach is later discussed in terms of limiting productivity to specific ‘domains’ (Van Marle 1985). Aronoff considers the affix as choosing the bases to which it may be added. In more recent linguistic theories (cf. Giegerich 1999) this is often turned round, and linguists speak in terms of bases selecting the affixes which occur on them. Alternatively, there are discussions of output constraints (cf. Plag 1999) according to which it is well-formedness of the final word which is the crucial factor in determining which processes may apply to the output of other processes. While Aronoff’s view of productivity as the rate at which a particular morphological process is exploited with a particular base-type seems reasonable, in practical terms the index of productivity which the linguist provides is not without mistakes. In Plag’s (2004: 6) opinion a major weakness of Aronoff’s model is that it makes wrong predictions both for extremely productive and completely unproductive processes. For example, for highly productive affixes like *-ness* the number of potential words is infinite, which yields a very low productivity index. Unproductive rules like *-th* nominalization pose the problem that the ratio of possible to actual words is very hard to calculate. In fact, Baayen (1989) even points out that Aronoff’s index of productivity vanishes for productive word-formation rules and is applicable to unproductive word formation rules and is better named as “an index of unproductivity” (Baayen 1989 referred to in Baayen and Lieber 1991: 801).

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<sup>9</sup> By the domain of a morphological process we understand the set of words constituting potential bases for that process (Geert Koefoed and Van Marle 2000: 309 and Bauer 2001: 22).

Lieber (1992) also criticises Aronoff's index and he sees a major problem with the notion of "actual words". It is agreed that there is no objective way of defining actual words. The actual words can be defined as the ones listed in reliable dictionaries (for example, in *The Oxford English Dictionary*). However, not all actual words are listed in dictionaries (Bauer 1988). So, Lieber (1992: 3) states that the notion of "actual words" is a fiction, but an unavoidable one if we are to find some way of measuring productivity.

Baayen (1989) gives a more complicated measure of productivity than Aronoff (1976). Baayen suggests that if we compare the ratio of types (the number of different forms occurring with a particular affix) and tokens (the number of occurrences of a particular type) in a large corpus of various affixes, we can find that the affixes which native speakers feel more productive show a relatively high proportion of hapax legomena (i.e. types which occur only once in the database). On the contrary, unproductive affixes show a lower proportion of hapax legomena. In other words, unproductive affixes display a higher proportion of high-frequency types than productive ones. The formula Baayen (Baayen and Lieber 1991: 804) suggests for measuring productivity is  $P = n_1 / N$ , where P is "productivity in the narrow sense",  $n_1$  is the number of types which show only one token (i.e. hapax legomena) and N is the total token frequency of words created by the morphological process.<sup>10</sup> The formula provides the way to distinguish productive processes or affixes from unproductive ones if one deals with a big corpus. Baayen explains that if we apply this formula to the frequency data of simplex words (i.e. underived words), we can measure the productivity of creating new simplex words and decide whether an affix or a morphological process is productive or not. Baayen (1989) states that an affix might be unproductive if the value P is lower than that of simplex words. In other words, the affix is unproductive, if it is easier to create a completely new word than to form a new item using that affix. On the contrary, the affixes that have a higher P value than that of simplex words would be productive and the degree of productivity can be measured. Plag (2004: 8) accepts Baayen's measure of productivity although he feels it important to add that in a very large corpus, hapaxes tend to be unfamiliar words to the hearer or reader and the crucial point here is that unfamiliar complex words can nevertheless be understood if there is an available word-formation rule. This rule then allows the decomposition of the newly

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<sup>10</sup> The term "types" refers to different words in a corpus and "tokens" refers to instances or occurrences of a type. For example, the sentence *Mary goes to Edinburgh next week, and she intends going to Washington next month* contains two tokens of the word form *next*. In other words, the word form *next*, as a type, is instantiated twice in this sentence (Carstairs- McCarthy, 2002:146).



encountered word into its constituent morphemes and the computation of the meaning of the derivative on the basis of the meaning of the constituents. Productive processes are therefore characterized by large numbers of low frequency words and small numbers of high frequency words. The many low frequency words keep the rule alive, because they force speakers to segment the derivatives and thus strengthen the existence of the affix (Plag 2004: 8). Thus here the qualitative notion of productivity interacts with the quantitative notion, mirrored qualitatively there is a rule which applies to a certain domain, i.e. certain affixes are productive within a morphologically restricted domain and in a quantitative respect, there is a possible number of derived words.

While Ladányi (2001: 234) agrees that Baayen's concept of quantitative productivity is applied successfully to big corpora, at the same time she notices that this concept of productivity moves the emphasis from competence-level potentiality to performance-level probability, which does not seem satisfactory from a theoretical point of view. This factor is indicated by Dressler (2002, cited in Ladányi 2001: 234), who highlights the difference between competence-level (potential) productivity and non-competence level probability: on the level of the potential system, only the possibility or impossibility of a conceivable derived word<sup>11</sup> can be determined but not its probability, as this latter category depends on the norm and performance factors<sup>12</sup> and not those of competence.<sup>13</sup>

Linguists approaching productivity in a natural framework (Van Marle 1992, Dressler 1997, Kiefer-Ladányi 2000a, b)<sup>14</sup> do not consider Baayen's concept of productivity

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<sup>11</sup> The notion of a "possible" (Allen 1978: 25, Van Santen 1992) or a "potential" word (Halle 1973: 6, Aronoff 1983) derives directly from a generative view of grammar. If it is "the task of morphology to tell us what sort of new words a speaker can form" (Aronoff 1976: 19), there is an implication that there are words which might exist, even though they do not (Bauer 2001: 40), in other words there is always a potential to coin new words.

<sup>12</sup> In Coseriu's (1975: 71) view there is a language system (Saussure's *langue*) which determines what is possible in any given language. The set of possibilities provided by the language system which is actually exploited in the language of a particular community is the norm for that community. The coining of new words does or (may) change the norm. By changing the norm the coinage changes the way in which the language is used (Bauer 2001: 28). With regard to productivity in word formation, we can say that the norm of a language selects the subset of acceptable formations from the larger set of systematically possible formations and excludes the others (Lipka 1972: 129).

<sup>13</sup> "Linguistic theory is concerned primarily with an ideal speaker-listener, in a completely homogeneous speech-community, who knows its language perfectly and unaffected by such grammatically irrelevant conditions as memory limitations, distractions, shifts of attention and interest, and errors (random or characteristic) in applying his knowledge of the language in actual performance[...]. We thus make a fundamental distinction between *competence* (the speaker-hearer's knowledge of his language) and *performance* (the actual use of language in concrete situations)" (Chomsky 1965: 3-4).

appropriate, because quantitative measuring of productivity on the level of type and token builds around the concept of frequency, but the advocates of Natural Morphology endeavour to define productivity independently of frequency, since the notion of productivity is not necessarily related to the notion of frequency (Ladányi 2001: 234)<sup>15</sup>.

From the above the following picture arises. Natural Morphology handles the concept of productivity as one that cannot be explained in terms of type and token frequency, on the contrary, these are the derived properties of the concept of productivity on the level of norms and performance (Dressler-Thorton 1996, Dressler 1997). Natural Morphology views productivity as a scalar notion,<sup>16</sup> but the concept itself can be defined not by the size of the rule scope and domain, and the number of derived words, but by the fact whether the given word formation rule can operate despite the large number of constraints. The larger number of constraints the given word formation rule can overcome, the more productive it is (Dressler-Ladányi 1988, 2000 referred to in Ladányi 2001: 234). (A subsequent section of this thesis will give a brief account of productivity constraints). Word formation productivity in Natural Morphology accounts for what is a potential or possible derived word, but only partially for what is a probable word, i.e., for how probable it is that a potential word is produced (on the level of performance) or accepted (on the level of language as institution / norm).

Rainer (1987) summarises six types of definition of productivity current in the literature:

- (a) a definition in terms of the frequency of the output words (Rainer 1987: 188);
- (b) a definition in terms of the number of available bases (Lieber 1981: 114);
- (c) a definition in terms of the proportion of words actually used to the number of words potentially created by a particular process (Aronoff 1976, Al and Booij 1981);
- (d) a definition in terms of the possibility of forming new words (Bauer 2001: 2);
- (e) a definition in terms of the probability of new forms occurring (Aronoff 1983: 163);
- (f) a definition in terms of the number of new forms occurring in a specified period of time (Mayerthaler 1977: 109).

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<sup>14</sup> The basic approach to productivity within Natural Morphology is that it is a by-product of naturalness (Mayerthaler 1981: 124-140).

<sup>15</sup> The occurrence of a derived word in a corpus, formed via productive process can be relatively low, while simultaneously the frequency of a morphological derivative, formed with the help of an unproductive rule, can be very high (Ladányi 2001: 234).

<sup>16</sup> Morphological processes that are productive may differ considerably as to the actual ease with which they underlie newly coined words. This phenomenon is often referred to as the gradual nature of morphological productivity (Koefoed and Van Marle 2000: 310) or also named as scalar productivity Bauer (2001: 125).

Rainer notes that some of these definitions are qualitative, others quantitative; some are synchronic, others diachronic; some build on ‘existing’ words, others on ‘potential’ words. Bauer (2001: 25) mentions that with this amount of variation, the studies of productivity are still in a rather poor state.

## 4.2 A working definition of productivity

For the purpose of the present study the definition (d) above suits the best which, however, needs some refinement. This refinement appears in the definition given by Schultink (1961) (translation from Van Marle 1985: 45): “By productivity as a morphological phenomenon we understand the possibility for language users to coin, unintentionally, a number of formations which are in principle uncountable” (cited in Baayen and Lieber 1991: 801). Baayen and Lieber (1991) highlight the two important features of Schultink’s definition of productivity which are central to the present investigation. The first has to do with the notion of “unintentionality”. If a word formation process is productive, new formations using that process will go unnoticed, i.e. words are automatically coined without speakers or hearers necessarily being aware of them. For unproductive processes a new form may sometimes be coined, but such coinages will always draw attention to themselves. The second feature of Schultink’s notion of productivity is the idea of countability: truly productive word formation processes will give rise to in principle an infinite number of new forms, while unproductive word formation rules will give rise to a fixed, and therefore countable, number of forms (Baayen and Lieber 1991: 802).

There is one more thing we wish to include in Schultink’s definition of productivity and it is “the semantic transparency” of newly created words. This feature appears to be important in the study of productivity by Hungarian linguists Kiefer and Ladányi (2000). Including this feature they extend the definition of derivational productivity in the following way: “A word formation rule is said to be productive if it can unintentionally create an infinite number of semantically transparent new words. This amounts to saying that if a word formation rule operates on the closed word classes, no productivity holds” (Kiefer-Ladányi 2000: 149, translation is mine).

Thus we have arrived at the definition of productivity which will be used as the guideline for the analysis of productivity of the verb particle constructions in English. One more point needs to be added. The definition of morphological productivity needs some

additional explanation as there are frequent misconceptions of the term in the literature. Dressler and Ladányi (2000: 105) mention that morphological productivity should not be confused with its hyperonym regularity, i.e. homogeneity of input-output relations of rules: all productive patterns are rule-governed and thus their morphosemantic and morphotactic motivation is systematically analysable in a rule format (cf. Kastovsky 1982: 157).<sup>17</sup> But, by definition, also unproductive rules are regular, both in inflection and derivation. Thus, for example, German denominal adjective formation via the suffix *-ig* is productive, whereas deverbal *-ig* adjective formation is not. Nevertheless, Dressler-Ladányi (2000: 105) assume that productivity, understood as rule-governed creativity (cf. Bauer 1983: 63), is a prototypical property of rules. In other words, productivity is a hyponym of both creativity and regularity, whereas rule-changing creativity is not regular.<sup>18</sup>

The next section will examine the degrees of morphological productivity suggesting hereby that productivity is a scalar phenomenon.

#### 4.3 Degrees of productivity

Although, following Schultink (1961), we agree that in derivation there is (or not) a pattern according to which we can create an infinite number of words and this approach equals to saying that productivity is not a scalar phenomenon, nevertheless, we cannot disagree with Bauer (1992a) either, who claims that there is at least a gradable aspect to productivity, and there should be a number of steps on the productivity scale, typically three: fully productive, unproductive and intermediate step (Bauer 2001: 16). Delimitation of the domain of a certain pattern, i.e. identification of the exact semantic (or other, e.g. phonological) features of a potential base, identification of the constraints on those patterns enable us to say whether a derivative is fully productive, semi-productive or non-productive. Rainer (2005: 335) states that the domain of unproductive patterns can be defined

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<sup>17</sup> Bauer (2001: 54) gives two main meanings of the word “regular” as applied to morphological processes: in one sense “regular” means transparent, that is “without any morphophonemic irregularities of form”. The second meaning of “regular” is that a process is regular if it is the process used to create the majority of appropriate forms in the language. For instance, *-s* plural in English in this sense is regular, but no other plural form is.

<sup>18</sup> In Bauer (2001: 64) creativity and productivity are not distinct categories, but prototypes. Creativity is understood as the native speaker’s ability to extend the language system in a motivated, but unpredictable (non-rule-governed) way, but rule-governedness is central to the notion of productivity.

extensionally, i.e. by enumerating one by one all the actually used bases, while the domain of productive patterns must be defined intensionally, i.e. by indicating one or more features that any potential base must possess. Baayen and Lieber (1991) note that the productivity of affixes varies according to the kinds of bases to which they attach.

Different scholars have tried to define the intermediate step of productivity. Pike (1967: 170) refers to this intermediate step as ‘semi-active’. However, the circumstances under which morphological processes are semi-active are not made clear and Pike (1967: 191) mentions that there may be a progressive gradation from highly active to completely inactive, with a number of stages in between. However, the number of these stages is not elaborated in Pike’s work.

Substituting “productive” for Pike’s “active”, Dik (1967: 370) also uses the term “semi-productive”. Dik, however, is explicit about the meaning of the term. For Dik (1967) the morphological process is fully productive if it applies to an open class of bases and all possible outputs are acceptable to the native speaker, semi-productive if it applies to an open class of bases and only some of the outputs are acceptable to the native speaker and if the class of bases is closed (that is if we can list the appropriate bases) the morphological process is non-productive.

Matthews (1974: 52) also uses the term “semi-productivity” and is quite clear that it does cover “the majority of lexical formations”. The following passage seems to be particularly convincing in motivating the distinction between the productive and the semi-productive processes:

if *the purpleness of the ceiling* is less secure than *the whiteness of the ceiling*, then why is *a purple ceiling* every bit as acceptable as a *white ceiling*? The answer is that Adjective + Noun is fully productive, whereas Adjective + *ness* is only semi-productive. But the essence of semi-productivity is that the rule itself allows borderline instances. (Matthews 1974: 222)

In a number of publications (Bauer 1983: 82-84, 1988: 71, 1994a), Bauer argues that the notion of semi-productivity is a pseudo-notion that should be given no theoretical status. But in his later work Bauer (2001: 18) mentions that this issue depends on the notion of potential words and the extent a morphological theory is comfortable with this term.

We do not feel it necessary to continue the discussion above any further regarding the issue whether it is necessary to include the term “semi-productive” or not since we wish to include it in the present investigation in the sense of Dik (1967). However, we need to add

one small modification to Dik's term – we want to regard a fully productive morphological process as one that applies to an open class of bases and the possible output is semantically transparent to the speaker-listener of the given language.<sup>19</sup> In the case of semi-productive process only some of the outputs are semantically transparent.

While Bauer (2001: 21) is unsure whether there are sufficient grounds for distinction between fully productive, semi-productive and non-productive morphological processes, he agrees that a limit to productivity is set by restrictions on the base.

The following section will focus on the most relevant restrictions which satisfy the aim of the present study.

#### 4.4 Constraints on productivity

The features or factors which serve to delimit a pattern's domain are generally referred to in the literature as constraints (or restrictions, when they are pattern-specific) (Rainer 2005: 335). While there are factors that seem to favour productivity, such as semantic coherence or naturalness (cf. Aronoff and Anshen 2001: 246, Bauer 2001: 20, Kastovsky 1986: 586), the coinage of a word also has to overcome certain difficulties in the form of constraints. Plag (2004: 18) mentions that there is a distinction to be made between the general possibility of a new word to be formed and the opportunity to use the new word in actual speech. The former is constrained by structural factors, the latter by pragmatic factors. In the present contribution we wish to postulate restrictions on word formation rules in the sense of Aronoff (1976), adopting here the above described rule-governed approach to productivity.

One of the goals of morphological theory is the definition of the class of possible words of a language. To achieve this goal, Aronoff provides word formation rules with a series of restrictions to determine correctly: (a) the kind of information that is available to them, and (b) the kind of operations that they can carry out. In order to exclude all the words yielding ungrammatical outputs from the base, the following restrictions on the base of a word formation rule must be considered: syntactic, semantic, phonological and morphological restrictions.

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<sup>19</sup> This is not the only criterion of a productive morphological process, others will be listed later while examining productivity of verb particle combinations.

#### 4.4.1 Syntactic restrictions

Word formation rules have access to the syntactic properties of the base: generally, the base is a member of the major syntactic categories: N, A and V (e.g. the suffix *-able* attaches to V, not to N, A or P, cf. *readable*, \**dog-able*, \**nice-able*, \**over-able* ), word formation rules do not usually apply, for example, to articles, pronouns, etc. Furthermore, word formation rules are sensitive to the subcategorization frame of the base (*-able* attaches to verbs which are subcategorised as [+transitive] and not [-transitive], cf. *drinkable* vs. \**dieable*) ( Scalise and Guevara 2005: 160).

#### 4.4.2 Semantic restrictions

Generally, derivational affixes ‘select’ the base to which they attach also with respect to its meaning (Scalise and Guevara 2005: 160). Scalise and Guevara give the example of the Italian verb *tenta(re)*, which may be used (at least) with the following two meanings (a) ‘to attempt’, (b) ‘to tempt’. The word formation rule that adds *-tivo* (yielding *tentativo* ‘tentative’) selects meaning (a), while the word formation adding *-tore* (forming *tentatore* ‘tempter’) selects meaning (b):

tenta(re)	tentativo	tentatore
Meaning (a)	+	-
Maening (b)	-	+

The semantics of the base is relevant in various ways to the functioning of morphological rules: they do not apply indistinctly to all the possible meanings of the base but, instead typically select one of them. A classic example for this in English is denominal adjectives ending in *-ed*, where “the base must be inalienably possessed by the head noun that the adjective modifies” (Quirk et al, 1985: 1329; cf. also Katamba 1993: 78). For example, *a bearded man*, *the vaulted roof*, *a wooded hillside* are completely acceptable, whereas \**a powered engine* and \**a legged spider* are ungrammatical and highly constrained (however, we have *a powerful engine* and *a leggy spider*). Quirk et al. explain these constraints by the simple principle that what one says should carry useful, nontrivial information. Thus all engines will produce power and all spiders have legs, but cases like *a diesel-powered engine*

and *a long-legged spider* become fully acceptable because they provide new, additional information: *an engine powered by diesel*, *a spider with long legs*. A common feature of acceptable *-ed* adjectives is that they express the notion of “inalienable possession”, i.e. they are normally thought to be permanent attributes (cf. *I’ve lost my car*, but not normally *\*I’ve lost my beard*). Those which express alienable possession *\*a carred man* [‘a man with a car’], *\*a two-carred man* [‘a man with two cars’], *\*a black-shoed lady* [‘a lady with black shoes’] are not acceptable and productive formations.

#### 4.4.3 Phonological restrictions

Word formation rules are subject to phonological restrictions when the ungrammaticality of their outputs depends exclusively on the phonological shape of the base. Phonological restrictions are usually associated with the segmental or prosodic structure of the words. For instance, the verb-forming English suffix *-ify* only attaches to monosyllables (as in *falsify*), to words stressed on the last syllable (e.g. *diversify*), and to words stressed on the penultimate syllable and ending in /i / (as in *beautify*). Apart from these examples, Plag (1999: 195) provides 23 derivatives in the neologism corpus on the basis of the above information and among these 15 formations are based on monosyllabic stems (e.g. *artify*, *jazzify*, *karstify*, *massify*, *mucify*, *plastify*, etc.), three forms have bases ending in an unstressed vowel, which is systematically truncated (e.g. *ammonia* – *ammonify*, *gentry* – *gentrify*, *Nazi* – *Nazify*, *yuppi* – *yuppify*), stress shift is a rare phenomenon as in *passify*, *probabilify*, *syllabify* and *aridify*. Scalise and Guevara (2005: 160) provide the examples of the English noun-forming suffix *-al*, which attaches only to verbs with the main stress on the last syllable, e.g. *try* – *trial*, *propose* – *proposal*, *arrive* – *arrival* vs. *deposit* – *\*deposital*, *recover* – *\*recovery*, *promise* – *\*promisal*. Plag (1999: 197) explains that the behaviour of suffixes can be accounted for by the prosodic properties of the two types of derivatives resulting from the prosodic differences of the suffixes. Other types of phonological constraints are also mentioned in the literature (Bauer 2001: 128-129; Katamba 1993: 74-75; Rainer 2005: 344-345) such as the segmental constitution of the word and its suprasegmental structure but these are irrelevant for the present study and thus will be left out of discussion.

As for verb particle constructions, it is the phonological shape of a verb that determines to a large extent whether or not it can combine with a particle (Fraser 1976: 13). Kennedy (1920), Whorf (1964), and Fraser (1976) have all independently noted that the majority of verbs occurring with particles are monosyllabic and that the remainder are made



up primarily of bisyllabic words which are initially stressed. Fraser (1976: 13) further mentions that while there are numerous phonetically bisyllabic verbs occurring in verb particle combinations, many of these cases may be analysed as phonologically monosyllabic which contain a final syllabic liquid or nasal – [l], [r], [m], or [n]. For example:

*banter (about), batter (around), blister (up), bolster (up), bugger (up), butcher (up), butter (up), cloister (up), clutter (up), cover (up), filter (out), fritter (away), gather (up), hammer (out), limber (up), litter (up), muster (up), offer (up), paper (up), peter (out), plaster (out), powder (up), pucker (up), render (up), simmer (down), sober (up), solder (up), spatter (up), splinter (up), squander (away), water (down), wither (away), zipper (up), battle (out), bottle (up), buckle (down), bundle (up), bungle (up), crumble (up), diddle (away), fiddle (away), fizzle (away), gobble (up), huddle (up), giggle (up), jumble (up), knuckle (down), ladle (out), parcel (out), pencil (out), puzzle (out), rattle (away), saddle (up), batten (down), blacken (up), frozen (out), brighten (up), button (up), curtain (up), dampen (up), darken (up), fasten (down), fatten (up), freshen (up), harden (up), lengthen (out), loosen (up), moisten (up), widen (out), blossom (out).*

#### 4.4.4 Morphological restrictions

The morphological structure of the base may also condition a potential formation (Bauer 2001: 130-131; Aronoff 1976: 51-63; Katamba 1993: 76-77; Rainer 2001: 881-882). Two well-known particular conditions for a formation to be produced are:

1. the base has to belong to a morphologically-defined class (e.g. verbs ending in *-ize* can be nominalized by *-ation*, but not by other suffixes: *colonization* vs. *\*colonizement*, *\*colonizal*, *\*colonizage*) (examples are from Plag 2006).
2. affixation is dependent on the presence of a particular affix in the base. As Plag (1999: 88-89) observes, the nominalizing suffix *-ity* may not be attached to adjectives ending in *-ory*, however with adjectives ending in *-ar*, the nominalizing suffix *-ity* is possible as in *polarity*, *peculiarity*, *scalarity* vs. *\*satisfactority*.

#### 4.4.5 Pragmatic constraints

Bauer (2001: 135) states that pragmatic effects deal with the way in which the words are used or the nature of the real-world referent of the word. Some pragmatic constraints are the following:

1. there has to be a need, otherwise the item would be redundant for language use (Kastovsky 1986: 595; Lieber 2004: 96; Plag 1999: 39), as illustrated in the following example:  
“... and whether your own conversation doesn’t sound a little *potty*. It’s the *pottiness*, you know, that’s so awful” (Kastovsky 1986: 595).
2. the nameability requirement (cf. Plag 1999: 40): the concepts encoded by derivational categories are rather simple and general and may not be highly specific or complex, as illustrated in the famous example of an unlikely denominal verb forming category given by Rose (1973: 516): “grasp NOUN in the left hand and shake vigorously while standing on the right foot in a 2.5 gallon galvanized pail of corn-meal-mush”.
3. the object of the label needs to exist, so only existing things can be named. This constraint has been referred to as *Hypostasierung* (‘hypostatization’) (Lipka 1977: 161-162). For example, *time-machine*, *beam me up* (Hohenhaus 2005: 356).<sup>20</sup>

Quirk et al. (1985: 1531) claim that pragmatic constraints are a primary bar to lexicalisation. “We have no word *snow-cream* (beside *ice-cream*), but that is hardly because there is no such thing.”<sup>21</sup>

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<sup>20</sup> Plag (1999: 40) notes that *existing* here means not only happening in the real world strictly speaking, but also *fictional existence*, i.e. “any new derivative must have some kind of referent or denotatum”. An exception to the rule, however, occurs when a word is created before the denotatum exists, i.e. the speaker first invents a word and then the object referred to by that word (Plag 1999: 39-40, Hohenhaus 2005: 356).

<sup>21</sup> Quirk et al. (1985: 1531) mention that from a linguistic and pragmatic viewpoint, *snow-cream* is as possible as *ice-cream*, there are varieties of ice-cream that resemble snow more than ice. Given the social urge to make a particular distinction, lexicalisation can be seen as operating to some degree independently of real-world constraints of pragmatics.

#### 4.4.6 Blocking

Aronoff (1976: 43) defines “blocking” as “ the non-occurrence of one form due to the simple existence of another with the same meaning or form”. It is not the coining of a word itself that is blocked, but rather its institutionalisation among speakers, i.e. its wide usage in the community (Bauer 2003: 80-81). This implies that a new word may appear in the language, be used for a short time, and then rapidly disappear in favour of a previously existing one.

Two categories have been distinguished in relation to blocking: homonymy blocking and synonymy blocking (Bauer 2001: 136; cf. also Plag 1999: 50, 2003: 64). Homonymy blocking explains the non-occurrence of a new formation when a formally identical form already exists, here the two items would overlap formally and cause ambiguity, e.g. *\*liver* ‘someone who lives’ vs. *liver* ‘inner organ’ (Plag 1999: 50). In turn, synonymy blocking is one of the devices language uses to avoid exact synonyms: a potential item is blocked, if there is already an existing item in the language which denotes the same reality, e.g. *thief* vs. *\*stealer* (Plag 1999: 50).

Token-blocking and type-blocking have sometimes been described as subtypes of synonymy blocking (Bauer 2001: 137-138). The former refers to the blocking of potential words by actual words, and is influenced by synonymy, productivity and frequency (the more frequent the word, the more likely the blocking of a potential item). Token-blocking is the most common type of blocking and affects the profitability of a word-formation process (Aronoff 2001: 347; Bauer 2001: 137, Rainer 2005: 336-337). Type-blocking affects word formation processes. It takes place when one process blocks another, and thus prevents the creation of new words. For example, the suffix *-ness* blocks the suffix *-ity*, for both create deadjectival nouns, and the process can be applied only once. Since it does not affect individual items, frequency does not play a relevant role here, which means that type-blocking is influenced only by synonymy and productivity (Bauer 2001: 138; Rainer 2005: 337-339).

#### 4.4.7 Restrictions on the output of word formation rules

The output of word formation rules is also subject to restrictions. In Aronoff’s view, these are either syntactic or semantic. All the words that are created must be members of a

major lexical category (i.e. N, A,V or P). The category of the output is specified by the word formation rule itself. The output of a word formation rule can be symbolized by a labeled bracketing where the lexical categories of the input and the output are explicitly signaled, together with a boundary between the constituents of the complex word. Scalise and Guevara (2005:162) give the following representation for the output *happiness*:

$$[[\text{happy}]_{A+} \text{ness}]_N$$

The semantic restriction on the output requires that its meaning be compositionally derived from the meaning of the base. The meaning of the output is represented as a compositional paraphrase containing a variable:

$$\begin{array}{ll} [\text{un}+[\text{X}]_A]_A & \text{'not X'} \\ \text{unhappy} & \text{'not happy'} \end{array}$$

The meaning of a complex word is always compositional when it has been created by a (synchronically) productive word formation rule. With time, a complex word may acquire unexpected or idiosyncratic meanings, i.e. meanings that cannot be derived from its constituents, as, for example, in the word *transmission*.

As for the productivity of verb particle combinations, Lipka (1972: 131) mentions that collocations with *out* and *up* are almost unrestricted when we deal with the literal use of particles and their combination with verbs of motion, purely locative verb particle combinations are the most productive collocations. For all other verb particle combinations, basically two kinds of restrictions can be distinguished: morphological and semantic. Lipka (1972) further notices that with morphological restrictions, the two usually go together, i.e. an item which is mainly or exclusively used in a particular form, such as the participle *fed up* functioning as a predicative adjective, is also semantically restricted, i.e. idiomatic. On the other hand, semantic restrictions are not necessarily tied up with morphological ones.

To sum up the discussion on the constraints on productivity the following should be said. Although Dressler (2003: 37) mentions that on the level of potential system constraints have an indirect and secondary influence on productivity, being aware of them is absolutely important. Possible words of a given morphological category must conform to very specific phonological, morphological, semantic and syntactic requirements, which impose limits on productivity. The output of word formation rules belongs to a major lexical category and has

compositional meaning. In addition to rule-specific restrictions, blocking, or, in other words, the general mechanism of token-blocking prevents complex words from being formed if a synonymous word is already available in the speaker's mental lexicon. The next section will examine the criteria of morphological productivity.

#### 4.5 The criteria of morphological productivity

Among the numerous criteria of productivity frequently mentioned in the literature (cf. Botha 1968: 138, Rainer 1987: 188 about frequency; Nyrop 1908: 36, Karcevski 1932: 87 about meaningfulness and semantic coherence; Darmesteter 1877: 70, Fleischer 1975: 71 about the ability to make a new form, etc.), the present contribution will deal only with those criteria which are appropriate for the aims of the study, i.e. which enable us to examine the productivity of verb particle constructions and their prefixed counterparts in English. These criteria are the following: semantic compositionality or morphosemantic transparency, morphotactic productivity, a rule scope requirement and class-openness.

##### *4.5.1 Semantic compositionality or morphosemantic transparency*

A productive word formation process requires that the meaning of the derived word be deduceable from the meaning of its parts – an underlying base and a derivational affix – that is a productive word formation process is semantically compositional (cf. Aronoff “about semantic coherence” 1976: 38).<sup>22</sup> Semantic compositionality is usually equated to “morphosemantic transparency” (Dressler 2005: 271). Dressler mentions that on the parameter of morphosemantic transparency, full transparency means fully compositional meaning, as is generally the case with inflectional meanings. According to Dressler, in word formation, morphosemantic transparency can never be complete, because Frege's principle of semantic compositionality can hold only for syntax where the meaning of a syntactic unit

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<sup>22</sup> The term “compositionality” derives from “the compositionality principle” which is usually attributed to Frege and thus often called “Frege's principle”. This principle is expressed as follows: “The meaning of an expression is a function of the meanings of its parts and of the way they are syntactically combined” (Partee 2004: 153).

is typically fully derivable from the meanings of its syntactic constituents.<sup>23</sup> This does not hold for word formation, as all accepted words are stored and thus lexicalised (Bauer 1983, Meyer 1992), whereas not yet accepted neologisms, generally, realise only one of the potential meanings of a compound or derivation. Thus we must differentiate between transparent word formation meaning and lexicalised word meaning. Bauer (2001: 53) mentions that there is a link between the two notions: while the lack of semantic compositionality implies lexicalisation, lexicalisation does not necessarily imply lack of semantic compositionality. Ladányi (2001: 236) notes that a derived word, formed via productive word formation process may also have a lexicalised meaning. But in case the meaning of the derivative acquired during the word formation process becomes opaque due to a large number of lexicalised meanings, that is the semantic coherence ceases (as was shown, for example, in the case of the Dutch suffix *-lijk* by Van Marle 1985), the given word formation process may lose its productivity. The reverse can also occur: if, for example, some lexical item acquires a specific grammatical meaning during the process of grammaticalization, it may become productive. Dressler (2005) thus concludes that less lexicalization means more transparency, more lexicalisation more opacity.

Examining compounds, Dressler (2005: 272) differentiates the following four fundamental degrees of morphosemantic transparency:

- 1) transparency of both members of the compound, e.g. *door-bell*,
- 2) transparency of the head member, opacity of the non-head member, e.g. *straw-berry*,
- 3) transparency of the non-head member, opacity of the head member, e.g. *jail-bird*,
- 4) opacity of both members of the compound, e.g. *hum-bug*.

The scale of transparency presupposes that transparency of the head is more important than of the non-head, especially in derivation.

Cutler (1980) (cited in Bauer 2001: 54) implies that morphological processes which retain transparency are more productive than those which do not because of their transparency. For her transparency is, if not a prerequisite for productivity, at least a major encouragement to productivity. Since transparency is also a matter of naturalness for natural morphology (cf. Dressler above), it would be expected that the more transparent something is, the more productive it is likely to be. But, as Bauer (2001: 54) mentions, the two are not synonymous. With the suffixation of *-ment* we have a morphological process which appears

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<sup>23</sup> Though it does not always hold, i.e. Frege's principle of semantic compositionality does not apply in the case of idioms, fixed expressions: *Good morning! That's all I need today – pull somebody's leg* (Cserép personal communication).

to be transparent but not productive, and Aronoff (1983) cites the addition of *-ity* to adjectives in *-able* (to give nouns in *-ability*) as a productive process, even though it is not totally transparent (for instance, it does not maintain the stress of the base to which it is added). Different though these opinions may be, in the present paper, adopting Dressler's (2005) motivation for morphosemantic transparency, we want to assume that the more transparent the given verb particle construction is (retaining the transparency of both constituents), the more productive it is. The analysis of verb particle constructions will be shown later.

#### 4.5.2 Morphotactic transparency

Apart from semantic compositionality, or in Dressler's term "morphosemantic transparency" (cf. Dressler 2005 above), there is another prerequisite which we wish to include as a criterion of morphological productivity and it is Dressler's "morphotactic transparency" (Dressler 2005: 272). As Dressler explains, on the parameter of morphotactic transparency, the most natural forms are those where there is no opacifying obstruction to ease of perception. Purely phonological processes opacify very little, e.g. resyllabification, as in *roast* → *roaster* or the application of a compound-stress rule, as in *bláck bóard* → *bláckboard*. More morphotactic opacity occurs when morphonological rules intervene, such as in *conclude* → *conclusion*, even more so in cases of allomorphic rules, as in *divide* → *division*, *five* → *fifth*, *broad* → *breadth*. Most opaque is suppletion, as in *three* → *third* (weak suppletion) and even more in *one* → *first*, *two* → *second* (strong suppletion).

Bases of word formation rules are, morphotactically and morphosemantically most transparent if they are autonomous words in their uninflected form (Dressler 1988, Rainer 1993: 98). This universal preference for word-based morphology applies to compounding even more than to inflection and derivation. Smaller bases than autonomous words are more opaque and occur in English very rarely, for example in the Latinate prefixed verbs *re-ceive*, *per-ceive*, *con-ceive*, *re-duce*, *ad-duce*, *con-duce*, etc., whose bases are morphosemantically opaque anyway. Larger and thus also universally less preferred bases are represented by inflected words which are not identical with citation forms. Such bases are very rare and restricted in English, e.g. *sport-s-man*, *sale-s tax* with a pluralised first base (cf. Jensen 1990).

Dressler (2005: 273) mentions that there is an interaction between morphosemantic and morphotactic transparency/opacity. For example, comparable nominal compounds tend to be morphotactically opaque when they are morphosemantically opaque. For example, the first base is morphosemantically more transparent in *mother-land* and *main-land* than in

*Dixie-land*. Kiefer (2001: 225) converts Dressler's morphosemantic and morphotactic transparency into morphotactic and morphosemantic productivity while discussing the productivity of English and Hungarian compounds. He provides the following patterns to check the productivity of compounds: A pattern X+Y will be said to be morphotactically productive if at least one of the categories X, Y belongs to an open class (N, A, Adv or V). This entails that new words following the pattern X+Y can be coined. Kiefer mentions that it is not necessary to require that both categories, X and Y belong to an open class. Prepositions do not form an open class but the pattern P+N can still be considered morphotactically productive. The morphotactic productivity of the patterns P+N and P+V can be shown by compounds such as *afterheat*, *in-crowd*, *overeducate*, *overbook*. Most of the P+V compounds seem to be genuine verbal formations (Bauer 1983: 208). The patterns N+N, V+N, N+A, and A+A are morphotactically productive. The second pattern which Kiefer provides refers to morphosemantic productivity: the pattern X+Y is morphosemantically productive if it is morphotactically productive, and if the meaning of X+Y can be predicted from the meaning of X and Y, that is the meanings of X and Y are transparent. Thus, Kiefer (2001: 230) reverses the order of morphotactic and morphosemantic transparency described in Dressler, saying that morphosemantic productivity derives from morphotactic productivity.

It seems plausible to examine Kiefer's (2001) terms of morphotactic and morphosemantic productivity, which are important criteria of morphological productivity. Later we will apply these terms to check the productivity of prefixed verbs and verb particle constructions in English.

#### 4.5.3 A rule scope requirement

Productive word formation processes are accounted for by rules. A productive word formation rule must fix an input and output category of word formation, the way of word formation (e.g. in agglutinating languages the type of affixation (cf. Ladányi (1999: 172)), the rule scope of a word formation process, i.e., a given word formation rule applies to all underlying bases of a specific syntactic category or just those domains showing some common phonological, morphological and semantic properties pertaining to that category. These and other restrictions on the rule determine the domain of word formation, that is the base of the given word formation rule. Furthermore, the productive word formation rule also fixes the meaning of the derivative which it gains during the process of word formation and which should be distinguished from the lexicalised meaning of the word also gained during



the same derivational process. The productivity of a certain word formation rule also means that the rule applying to certain bases or to the domains having common properties (e.g. application only to masculine nouns or to consonant final roots, etc.), eventually creates a grammatically correct word. Dressler and Ladányi (2000: 107) mention that for a word formation rule to be fully productive it is necessary not to compete with any other word formation rule. Since accepted outputs of (even fully productive) word formation rules are stored in the lexicon, their existence may influence the application of even a fully productive word formation rule (e.g. in the case of blocking).

Baayen (1989: 225) notices that if we have to deal with an unproductive word formation rule, we should be aware that such rules have the function of motivation, although not of lexical enrichment. Baayen also mentions what happens if we have a slightly productive word formation rule: the efficiency of the rule mechanism in its potential domain is very limited, constant lexical checking may be necessary whether the complex item perceived or to be produced really exists or is adequate in the given circumstances.

Obviously, the explanation of word formation rules in the above- mentioned manner has to do with degrees of productivity. Dressler and Ladányi (2000: 108) say “this gradience must be established on purely linguistic grounds, because psycholinguistic considerations either belong to the level of performance or to the justification of universal preferences”.

#### 4.5.4 Class-openness

As has been mentioned earlier, a given word formation rule may be productive only if the class (or the set of words, i.e. the domain) it applies to is open. However, the class-openness or closedness cannot always be determined directly. Dressler and Ladányi (2000: 112-114), for example, show that even the seemingly closed classes (e.g. German and Hungarian ordinal numerals formed from cardinal numbers) can be extended unrestrictedly (e.g. Hungarian ordinal numerals starting with 3 are formed via the suffix *-V(dik)* which always applies to the right-hand head as in *ötödik, hatodik, nyolcadik, tizenegyedik, ... X-dik* ).

The importance of class-openness though is an important criterion in Wurzel's (1984) theory of productivity of inflectional classes. In his theory an inflectional class is defined productive if:

- i) it can acquire new words, that is, native neologisms as well as borrowings from other languages;
- ii) it can attract words from other inflectional classes;

iii) it does not lose words to other inflectional classes.

Wurzel (1984: [section][section] 4.547) claims that productivity is partly based on class stability. Class transitions take place only among complementary classes, that is, transfers of lexical item from one inflectional class to another are based on common extramorphological properties of the basic form of words. The same properties determine the assignment of neologisms to inflectional classes, and implicitly determine constraints on such assignments. So it amounts to saying that there is no absolute productivity. It must also be pointed out that in principle productivity holds if the class is system-congruous, and obviously, a class is productive as long as there are words with exactly the morphological properties required for assignment to it.

Wurzel (1984: [section][section] 4.5- 4.6) distinguishes between primary and secondary productivity. The former applies to all those cases in which the assignment of lexical items to an inflectional class is automatic, since the extramorphological properties of the words (e.g., semantic properties, phonological structure, grammatical gender, etc.) conform exactly to those which characterize that class. The latter, on the other hand, refers to the integration of words which have to be phonologically, semantically or syntactically adapted in order to meet the extramorphological properties of the class into which they are accepted.

Dressler and Ladányi (2000: 119) mention that the highest degree of derivational productivity is obtained with Wurzel's secondary productivity, when even new foreign words are integrated and when these foreign words have unfitting properties which have to be accommodated to the properties of a derivational class or of the respective language-specific system adequacy in particular.<sup>24</sup> This criterion is the most important one, because a rule must have maximum productivity in order to overcome the two obstacles of foreignness and unfitting properties. Accommodation of unfitting phonological shapes can be exemplified with French *chaussée* 'road' loaned into Russian as [šo 'se], which is phonologically non-integrated because of unstressed [o] and stressed word-final [e], and morphologically non-integrated, because it is indeclinable, thus this loanword has three unfitting properties. The derived adjective [ša'sej]-*nyj* and the derived verb [šas]-*irov-at*', however, are both phonologically and morphologically integrated: the unstressed vowel is centralised, the final vowel is changed into diphthong in the adjective and deleted in the verb, and the derivational suffixes allow inflection.

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<sup>24</sup> Dressler and Ladányi (2000: 119) assume that it is more difficult to integrate words coming from a foreign language than indigenous words.

Ladányi (1999: 173) similarly gives an example of the Hungarian adaptation of English *to print* as *print-el* ‘prints’, in which the lexical root may not be pronounced in the English way (aspiration of stops, rhotic approximant), or in *deep-jumping-ol*, the first [i:] must not be diphthongized, and [ng] must be pronounced as two consonants (nasal plus voiced velar stop) instead of velar nasal only (as in English), if the morphological adaptation via the suffix *-ol* is to be applied.

Dressler (2003: 37) further develops the hierarchy of Wurzel’s primary and secondary productivity supporting the concept of gradualness of the productivity of inflectional classes. Thus, the third criterion for productive processes of inflectional classes is the assignment of indigenous neologisms, i.e. of abbreviations and conversions. Abbreviations and conversions are brought about by extragrammatical means of the language and not by grammatical word formation rules and therefore in the lexicon they count as marginal and marked elements similar to loan words. This amounts to saying that the operation of word formation rules on such elements presupposes an even greater degree of productivity, they are ranked lower than foreign words, because they appear to be less foreign to the indigenous lexicon than truly foreign loan words (Ladányi 2001: 238). For this criterion Dressler and Ladányi (2000: 122) provide examples of Hungarian denominal adjective formation with the suffix *-s* (*-a/o/e/ös*) with the meaning of ‘belonging to (an organization)’, e.g.

- (1) *MSZP-s*, *fidesz-es*, *MDF-es*, *kft-s* ‘being a party member of the parties MSZP, Fidesz, MDF; being /working in a limited liability company’

or denominal verb formation with the suffix *-z-*, with the meaning of either ‘to take part in the activities of an organization’ or ‘to speak pejoratively about an organization’, e.g.

- (2) *kft-z-ik*; *MSZP-z-ik*, *fidesz-ez-ik*, *MDF-ez-ik* ‘(s)he works in a limited liability company; works in /for the M / F/ M party’.

Dressler’s hierarchically lower criterion is inflection class change from a less to a more productive or stable class. Due to the low hierarchical rank of this criterion, productivity of the target word formation rule may be very slight. The example here is the recent shift from the complex Hungarian suffix *-íroz*, used to form verbs from foreign names and nouns, to the normal, simple indigenous suffixes *-(e / o / ö)z-* and *-(e / o / ö)l* as in: *vagon-íroz* > *vagon-oz* ‘load into a train-carriage’, *park-íroz* > *park-ol* ‘park’, etc. (examples are from Dressler-Ladányi 2000: 123).

Finally, the last and hierarchically lowest criterion is word formation productivity of affixations, as directly observable in fully grammatical indigenous neologisms formed from indigenous bases (cf. Dressler-Ladányi 1998; 2000). The scholars conclude that it is always

the stem structure of the word which determines the assignment of a word to a certain productive class or unproductive group. Old indigenous words are clearly more system-adequate than foreign words entering the target language. Among accepted new words those derived from neologistic bases are more significant for measuring productivity than those derived from old words, because rule application has to overcome the factor of newness and among neologisms, complex bases are more significant than simplex bases. The synchronic gradation of grammatical productivity should be measured according to the relative size or severity of structural obstacles a rule has to overcome in order to realise its productivity and the criteria for measuring productivity should be hierarchically ordered according to the same gradation.

For the present research, the examination of productivity of the English verb particle combinations on the basis of Wurzel's (1984) and Dressler's (2003) criteria used for inflectional classes is impossible, as the English particles are invariable words. None of Wurzel's criteria would apply to English verb particle combinations excepting Wurzel's (1984) and Dressler's (2003) class openness (i.e. described as the ability of the class to acquire new members), which is an important criterion for the investigation of verb particle constructions in English.

The next chapter concentrates on the issue of morphological productivity of verb particle constructions. Given the constantly growing number of verb particle combinations in English, the possible ways of identifying productive patterns of verbs and particles by using different lexical resources will be shown. One possible way to try to capture these patterns is by means of suggested hypotheses, which help to set up the semantic classes of verbs and particles that present the highest degree of morphological productivity. In addition, an attempt will be made to prove that English prefixed combinations are different from verb particle combinations in productivity, i.e. prefixed combinations are not productive and should be considered lexicalised formations.

## 5. MORPHOLOGICAL PRODUCTIVITY OF THE ENGLISH VERB PARTICLE CONSTRUCTIONS

### 5.1 Selection of relevant data and methods

Although the problem of establishing verb particle constructions in English as shown in the previous chapters has a long history, the productive classes are still arbitrarily numbered and there is no widely accepted classification of the numerous productive (open) combinations and only a superficial mentioning of unproductive (closed) combinations.

In this chapter we investigate the productivity of verb particle constructions in English. It is often the case that some verb particle combinations form some productive pattern that can be captured, with the combinations sharing the semantic contribution of the particles. This is the case of, for example, the directional particle *up*, indicating movement or position, and verb particle constructions such as *jump up*, *get up* and *stand up*. These combinations involve the literal meanings of the verb and particle, and have transparent semantics, and give account of productive formations in English. In this chapter an attempt will be made to classify the productive verb particle combinations and to contrast them with prefixed combinations in English which are not productive and should be considered lexicalised formations.

In the previous chapters it has already been shown that verb particle combinations can range from compositional constructions (e.g. *throw out*), in which the meaning of the construction is determined by the literal interpretation of the particle and the verb, through idiosyncratic or semi-idiosyncratic combinations (e.g. *go off* meaning ‘to explode’), which cannot have their meaning determined by interpreting their components literally, to aspectual VPCs, in which the particle provides the verb with an endpoint, suggesting that the action described by the verb is performed completely, thoroughly or continuously (e.g. *tear up*) (cf. a three-way classification by Dehé (2002), Emonds (1985) and Jackendoff (2002) and the one detailed by the author of this dissertation in section 2.3). Cases of idiomatic verb particle constructions like *go off* meaning ‘to explode’, where the meaning of the combination cannot be straightforwardly inferred from the meaning of the verb and the particle, fortunately seem to be a small minority (Side 1990).<sup>25</sup> Most cases seem to be more regular, with the particle

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<sup>25</sup> Consider also Live (1965: 428), who gives the following examples of idiomatic verb particle constructions: *take in* ‘to absorb’, or ‘to deceive’, *count out* ‘to exclude’, *look into* ‘to investigate’, *bring about* ‘to cause’, *talk*

compositionally adding the specific meaning to the construction and following a productive pattern. Indeed, Side (1990: 147) notes that particles in verb particle constructions seem to fall into a set of possible categories, defined according to their meanings in verb particle constructions. For instance, in his analysis of verb particle constructions involving *off*, which is defined as *indicating distance in time or space, departure, removal, disconnection, separation*, most verb particle constructions seem to fit into this category, e.g. *take off* meaning ‘to depart’, *cut off* meaning ‘to disconnect’ and *strain off* ‘to remove’.

In the present investigation we focus on compositional and aspectual verb particle constructions. This investigation focuses on the analysis of four directional/locative particles *out*, *in*, *up* and *down* as the test cases (these are the most common particles according to *Collins Cobuild Dictionary of Phrasal Verbs*) in combinations with verbs. In order to obtain the productive patterns in verb particle constructions we use two different sources of information: dictionaries and Levin’s (1993) verb classes. Although it seems plausible that there is a considerable degree of productive formation of some verb particle combinations, it is not clear what groups of verb particle combinations might be accounted for. Thus one source of information about verb particle combinations is dictionaries which may help us to uncover some productive patterns in these combinations. For these purposes we investigate the coverage of verb particle constructions in several dictionaries: the paper versions of the *Collins Cobuild Dictionary of Phrasal Verbs*, and of *Longman Dictionary of Phrasal Verbs*, and the online dictionaries <http://www.wordsmith.com> and <http://www.onelookdictionary.com>. Each of these dictionaries has a considerable number of phrasal verb entries potentially providing us with a good starting point for finding productive patterns. Having this large amount of dictionary data available, we then try to find regular patterns in verb particle combinations, more specifically those where the particles under investigation explicitly show directional meaning in the combinations (or at least metonymical extension of the directional meaning); then we try to classify verb-particles into groups according to the particle meanings they take. For such verb groups and associated particle there will be hypotheses suggested that will help to identify the possible productive combinations and filter non-productive ones.

A second source of information is found in Levin’s (1993) classes of verbs. In Levin’s classification, verbs are grouped into classes in terms of their syntactic and semantic

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*over* ‘to discuss’, *find out* ‘to discover’, *slow down* ‘to decelerate’, *run up* ‘to accumulate’, *egg on* ‘to incite’, *call off* ‘to revoke’, *get around* ‘to circumvent’.

properties. These classes were not developed specifically for verb particle constructions, but it may be the case that some productive patterns of verb and particle combinations correspond to certain classes of verbs. Fraser (1976) noted how semantic properties of verbs can affect their possibilities of combination with particles, for example, verbs of hunting and the resultative/ aspectual *down* (*hunt/track/trail/follow down*) and verbs of cooking and the aspectual *up* (*bake/cook/fry/broil up*). As semantic properties of verbs can influence the patterns of combination with particles that verbs precede, by having a semantic classification of verbs we can investigate how they combine with certain particles. For example, in the case of Fraser's *bolt/cement/clam/glue/paste/nail*, we have semantically similar verbs where the objects specified by the verbs are used to join material and they can all productively combine with *down* (Fraser 1976: 11). There is some common semantic thread running through this list, so that a new verb that is semantically similar to them can also be reasonably assumed to combine with *down*. Fraser (1976: 11) gives a further explanation "If we define a *dute* as a device which is corkscrew- shaped used for joining two pieces of material together, we can certainly accept the sentence, *He duted down the loose corner of the rug*". This can be used to extend the coverage of the available combinations by generating verb particle constructions from classes of related verbs that follow productive patterns of combinations. In the present research, we investigate the possibility of combining Levin's (1993) classes of verbs with the above-mentioned four directional particles to generate more productive verb particle constructions. Naturally, among Levin's 190 classes and subclasses that capture 3100 different verbs, not all will combine with the directional (or aspectual) particles in a productive pattern, only certain classes, e.g. Agentive Verbs of Manner of Motion like *glide, move, roll, slide* and Verbs of Body-Internal Motion like *kick, rock, wobble, wriggle* seem to form productive combinations with, for example, directional *out*. Thus the validity of a candidate verb particle construction has to be tested which happens by searching the possible combination in the dictionary. If it is unattested in any of the dictionaries, we search it on the web using the search engine Google. For each combination searched, if the combination appears to be valid, Google provides us with a measure of frequency in the form of the number of pages in which that combination appears. Since we want to be able to identify and exclude the invalid cases, if a verb particle construction is not attested either on the web or in any of the dictionaries mentioned, we will check its acceptability by native speakers who serve as informants to judge the transparency of the combination. This way additional acceptable combinations can be predicted.

Finally, the last method to generate more verb particle combinations is by testing neologisms. Morphological rules or patterns with neologisms show how the ‘level’ of the potentiality of the morphological system can be realised, i.e. potential or new words can also be productive. Side (1990: 146) notes that frequently new verb particle constructions are formed by analogy with existing ones, with often the verb being varied and the particle remaining (e.g. *hang on*, *hold on* and *wait on*). To test this idea, we analyse some combinations generated by verbs-neologisms belonging to certain semantic classes and the subset of four directional particles (*out*, *in*, *down*, *up*). The examples of verbs-neologisms are extracted from the web and other sources (e.g. daily magazines). If the hypotheses suggested in this research and the lexical rule that attaches a verb to a particle make it possible to combine the new relevant types of verbs and the particle in a regular pattern, we will assume that the particle is productive (in addition, we accept judgements on acceptability for neologisms from the native speakers). The examples can be a more informal or a recent use of neologism verbs and particles like *hop off*, *kangaroo down* and *skateboard away* (Villavicencio 2003: 60). These recently coined verb particle constructions provide a useful addition to the information on the productivity of these constructions in the dictionaries.

## 5.2 Analysis and discussion

### 5.2.1 *The relationship of prefixed verbs to particle verbs and the interpretation of prefixed verbs in terms of productivity*

In the recent morphological literature on English, more attention has been paid to particle verbs than to prefixed verbs. One reason for this may be that English prefixes of Germanic origin (e.g. *in-*, *out-*, *up-*, *down-*, *under-*, *over-*) have a range of senses, not all of which are currently productive. Each Germanic prefix is used in many lexicalised forms, and although originally their meaning belonged (and still belongs) to the spatial domain, one of the most productive meanings of prefixes is often not literal, e.g. the most productive meanings of *over-* and *under-* seem to be ‘too much’ and ‘too little’ respectively. In this study of verb particle constructions with directional particles *out*, *in*, *up* and *down* it seems appropriate to compare prefixed verb combinations with their particle counterparts and attempt to show that prefixed combinations (at least with these four prefixes) are not



productive. To confirm the non-productivity of prefixed verb combinations, we wish to make the following hypotheses and approach:

1. Taking into consideration the criteria of morphological productivity we assume that prefix + verb combinations and verb + particle combinations are morphologically productive if they are: a) morphotactically productive and b) morphosemantically transparent. Morphotactic productivity requires the combinations to be formed without structural restrictions. Morphosemantic transparency requires the meaning of the prefixed verbs and verb + particle combinations be derived from the meaning of their parts.
2. We take the presence of neologisms which are created by analogy to existing combinations (if any systematic classes are observed) to be evidence for the contemporary productivity of the given prefix or the particle. But in addition, we accept judgements on acceptability for neologisms from native informants.

Many morphologists have commented on the individual differences concerning the acceptance of prefixed combinations. Prefixed combinations with *out-* are very restricted in Modern English. According to Marchand (1969a: 96), “With a locative meaning, the particle has never had any verb-forming force. Verbs of the type *outbreak* ‘break out’ occur only in poetry and are equivalent to prose combinations of the phrasal type *break out*”. The situation is similar with *up-* “Probably the only verbs that have general currency are *uphold*, *upturn*, *uproot*, *upset*” (Marchand 1969a: 121). Comparing prefixed combinations and verb particle constructions, Kennedy (1920: 16) argues that “in practically all of the instances where a verb-adverb combination is formed of the elements which enter into a still-existing verb-compound, the combination has the literal value and the compound the figurative. Cf. *offset* and *set off*, *outgrow* and *grow out*, *outlive* and *live out*, *uphold* and *hold up*, *upset* and *set up*”. Live (1965: 442) mentions that *out-* is still productive, and that the prefix is “semantically consistent and transparent in the newer compounds”, while it is „often metaphorically obscured in the older ones”. Prefixed combinations with *out-* and *up-* are few in number and must be considered to be the remains of an older system which have been subjected to lexicalisation to a large extent. The only exception is Marchand’s type *outbid* (Lipka 1972: 163). In discussing the “similarity between particles and prefixes”, Fraser (1976: 29) states that in *outburn*, *outlast*, *outwear* “*out* has the effect of doing two things. First it causes the intransitive verbs (*burn*, *last*, *wear*) to become transitive. Secondly, it associates the notion of ‘comparison’ to the verb”. He thus derives prefixed verbs such as *outshout*, *outshine*, *outspend* from comparative sentences containing *shout louder*, *shine brighter*, *spend more*. At

first sight these combinations might appear productive: in their formation they are not constrained by either structural or pragmatic factors, thus morphotactically productive, but where they fail is they do not seem to meet the criterion of semantic compositionality or morphosemantic transparency. Let us examine the meanings of these and several other *out*-prefixed words in the following sentences provided by Fraser (1976: 30).

- i)     *outshout* – He shouted *louder* than she did.  
                    He outshouted her.
- ii)    *outshine* – The lamp shines *brighter* than the candle.  
                    The lamp outshines the candle.
- iii)   *outreach* – The man cannot reach *further* than this machine.  
                    The man cannot outreach this machine.
- iv)    *outrun* – The winner ran *faster* than the others.  
                    The winner outran the others.
- v)     *outgrin* – Few people grin *more often* than the Cheshire cat.  
                    Few people outgrin the Cheshire cat.
- vi)    *outthrow* – The centerfielder can throw (the ball) *farther* than the  
  pitcher.  
                    The centerfielder can outthrow the pitcher.

In these sentences the underlying verbs *shout*, *shine*, *reach*, *run*, *grin*, *throw* have the same meaning being both input and output verbs. However, the prefix *out*- attached to verb bases, does not convey its original spatial meaning ‘situated at or coming from a point away, outside’ (definition given by *Webster’s II New College Dictionary* 1995: 777); in all cases it rather carries another central meaning given by the dictionary ‘better, greater or more than’. Fraser points out that these *out*- verbs in the sentences containing comparison account for the feature Degree in the prefix. The problem that arises here is that in the majority of prefixed combinations the original meaning of the prefix *out*- is lost in the process of derivation, instead the prefix adds some figurative value to a base verb and the meaning of it is not consistent from case to case whereas the meanings of the corresponding verb particle combinations are more concrete and better motivated. To prove this let us analyse the meanings of several other prefixed verbs containing the prefixes *out*-, *up*- and *down*- in the

examples,<sup>26</sup> collected from *Collins Cobuild English Dictionary* and *Webster's II New College Dictionary*, the prefix of which has a corresponding particle.

**OUT:** *outbabble, outbalance, outban, outbake, outbar, outbid, outchase, outclass, outdistance, outdo, outdraw, outfit, outflank, outflow, outfox, outgrow, outguess, outgun, outlast, outlaw, outline, outlive, outmanoeuvre, outnumber, outpace, outperform, outplay, outpoint, outrage, outrank, outrun, outsail, outsell, outshine, outslide, outsmart, outtax, outstrip, outvote, outweigh, outwheel, outwit;*

**UP:** *upbraid, upbuild, upcast, update, updraw, upend, upgrade, upheave, uphold, uplift, upload, uprear, uprise, uproot, upscale, upset, upshift, upspring, upstage, upstart, upsurge;*

**DOWN:** *downgrade, download, downplay, downscale, downsize, downweigh;*

First, consider the meanings of some prefixed verbs with *out-*. Table 1 shows the distribution of senses.

Table 1. The distribution of prefixed verb senses OUT-

Prefixed verbs with <i>out</i>	Literal/ spatial meaning	Figurative meaning 'to surpass, exceed do or be better'	Other meaning
1. outbabble 'utter excessively'		X	
2. outbake 'surpass in baking'		X	
3. outbalance 'exceed in influence or significance'		X	
4. outban 'ban more than expected'		X	
5. outbar 'bar out'	X		
6. outbark 'surpass in barking'		X	
7. outbid 'bid higher than'		X	
8. outchase 'be quicker than, deceive with more tricks'		X	
9. outdo 'do more or better'		X	
10. outdraw 'draw out'	X		
11. outfit 'provide with necessary equipment'			X

<sup>26</sup> No prefixed verbs with *in-* were found in the dictionaries.

12. outflow ‘stream out, as if in a flow’	X		
13. outhatch ‘outscheme or outplan someone’		X	
14. outperform ‘surpass in performance’		X	
15. outride ‘ride faster than’		X	
16. outsail ‘excel, leave behind in sailing’		X	
17. outsell ‘exceed in amount of sales’		X	
18. outslide ‘slide outward, onward or forward’	X		
19. outtax ‘levy excessive taxes’		X	
20. outwheel ‘roll, move on wheels better, faster than others’		X	

As can be seen from the table, in many examples of prefixed verb combinations the prefix *out-* conveys the meaning given by the dictionaries ‘to surpass, exceed, do better’. The meaning of the prefix in the combinations above is most often not predictable. For example, while in the case of *outslide* we have a motion verb with the prefix *out-* that displays a clear spatial sense, in another example of a relatively recent motion verb *outwheel* ‘drive faster than the other car’, the meaning of the prefix is figurative, this shows that it cannot be predicted in which cases the prefix acquires literal and figurative value. Moreover, a comparison of prefixed combinations with *out-* and the corresponding verb particle constructions allows us to observe that the senses of verb particle constructions are more clear and concrete, e.g. the particle *out* in more cases preserves either the literal meaning ‘in the direction away, out from the inside’, especially in the case of motion verbs or action verbs involving motion as in *ride out*, *sail out*, *flow out*, *slide out*, *wheel out*, *bark out*, *babble out*, *chase out*, or the figurative meaning ‘to the point of depletion or exhaustion’ as in *sell out*, *play out*, *live out*, *last out*, *pace out*.

Consequently, it would be highly problematic to interpret the meaning of any new combination with the prefix *out-* for two reasons: first, new prefixed combinations will be very restricted in use as the corresponding particle verbs seem to completely replace them; second, even if a new combination is coined, its meaning is hardly predictable. Consider the cases of possible prefixed verbs formed from motion verbs and the prefix *out-* such as *outraft*, *outcanoe* or *outpaddle*. One requirement in accepting a new word is the possibility of imagining a possible referent. But even if the referents of the underlying words are clear, it is perplexing to guess whether the derived combinations have literal or figurative meaning and

besides, for native speakers these prefixed combinations sound odd but their particle counterparts *raft out*, *canoe out* and *paddle out* are acceptable. We will consider the meanings of the prefixed combinations to be frozen and lexicalised, as morphosemantic transparency in these cases disappears. However, we can agree with Lipka (1972: 165) that the only productive types involving *out-* are those cases which are not related to the verb particle constructions, when the prefix and the particle have no semantic features in common such as *outbid*, *outlast*, *outlive* or *outplay*. Thus if we accept Lipka's interpretation and assume that *out-* is productive in the sense of 'exceed', i.e. in its figurative meaning, the above-mentioned *outraft*, *outcanoe* or *outpaddle* if not semantically related to their particle counterparts, can be productive only in the figurative sense 'surpass, exceed, do or be better'.

Let us check if the above-mentioned holds for the prefixed combinations with *up-*. Again our starting point is that the prefix *up-* carries the literal meaning 'direction up, upward'. *Collins Cobuild English Dictionary* gives only 9 examples with this prefix. Table 2 summarizes the meanings of these prefixed verbs.

**Table 2. The distribution of prefixed verb senses UP-**

Prefixed verbs with <i>up-</i>	Literal/ spatial meaning	Figurative meaning
1. upbraid 'criticize severely'		X
2. update 'make it more modern'		X
3. upend 'stand, set, or turn on one end'		X
4. upgrade 'improve'		X
5. uphold 'hold up, raise' 'support'	X	X
6. uplift 'lift up, elevate' 'raise to a higher moral, social condition'	X	X
7. uproot 'pull up by the roots' 'leave the place where you lived for a long time'	X	X

8. upset 'tip over, overturn' 'make smb feel worried'		X
9. upstage 'divert attention from someone towards oneself'		X

The prefixed verbs with *up-* seem to be much less productive than those with *out-*. These combinations have mostly figurative meanings which vary from case to case. Moreover, as can be observed from the table, many *up-* prefixed verbs have two primary clusters of meaning and it is not easy to guess which meaning is more common, although many dictionaries (cf. *Merriam-Webster's Online Dictionary* and the online *Cambridge International Dictionary of English* among others) point out that the literal use of the prefix is obsolete and quite restricted. Electronic dictionaries give further examples of prefixed combinations with *up-*, among which there are many motion and action verbs that convey clear literal meanings (e.g. *upcast* 'cast up', *upclimb* 'climb up, ascend', *upleap* 'leap up', *upshift* 'shift a motor vehicle into a higher gear', *updraw* 'draw up', *uptear* 'wrench or tear up', *uproll* 'roll up', *upspring* 'spring up', *upsweep* 'sweep upward', *upsoar* 'to soar or mount up'). Dictionaries, however, note that the uses of these prefixed combinations are rare and archaic, typical of the Old English period and in Modern English their particle counterparts are much more common and productive and completely replace the old prefixed forms. Prefixed combinations with *up-* receive similar interpretation to the *out-*prefixed verbs: the meaning of *up-* in the existing combinations is not transparent, finding novel constructions with *up-* is difficult, thus we will consider them to be lexicalised and morphologically unproductive.

Finally, let us check the prefixed combinations with *down-*. *Collins Cobuild English Dictionary* lists the following *down-*prefixed verbs all with a slightly transparent meaning of the prefix *down-* 'from a higher to a lower position or place' or figurative sense. Consider: *downgrade* 1. 'to reduce in rank, position, status', 2. 'to reduce or minimize the importance of, belittle'; *download* 'to transfer from the storage of a larger system to that of a smaller one'; *downplay* 'to minimize or make little of (a problem, rumour); *downscale* 'to reduce in size or scale, to scale down; *downsize* 1. 'to reduce in size, to design or produce in smaller size' 2. 'to fire employees for the purpose of downsizing a business'; *downweigh* 'to weigh or press down'. It seems unnecessary to go on checking the productivity of verbal combinations with *down-* as these are the only combinations found in the dictionaries and there are no

contexts in which new formations can be found. The cases presented are the examples of lexicalised and frozen formations, they are not systematic and do not effect a consistent and predictable meaning, *down-* as a prefix cannot be used productively to derive new words.

There are no prefixed verb combinations with *in-* found in the dictionaries, this prefix seems to be productive only when attached to adjectives with the sense of ‘negation’, *in-* cannot attach to verb stems at all.

The analysis above allows us to draw the following conclusion. Prefixed verb combinations with *out-*, *up-*, *down-* and *in-* present lexicalised formations. Although being morphotactically productive, they are not morphosemantically transparent, cannot derive new combinations in a productive manner and in Modern English they are completely replaced by particle constructions. Among the analysed prefixed combinations only the *out-*prefixed verbs seem to be productive where the prefix has the sense ‘surpass, go beyond, do or be better’ but only in case they are not semantically related to verb particle combinations. Thus prefixed verbs are not morphologically productive combinations. The next section investigates the productivity of verb particle constructions.

## *5.2.2 Morphological productivity of the verb particle constructions in the dictionaries*

### *5.2.2.1 Productivity of the particle OUT in verb particle constructions*

The questions to be answered in this research are the following:

1. Having morphosemantic transparency as the criterion of morphological productivity, to what extent is the spatial (i.e. directional) sense of the particle *out* (later *in*, *down*, *up*) transparent in verb particle constructions and which combinations are to be treated as fully productive and semi-productive?
2. How many semantic classes of verb particle constructions can be set up in which a particle is productively attached to a verb stem?
3. Is there a lexical rule that generates the productive derivational pattern for a verb + particle construction?

The initial approach underlying the present investigation is based on the following hypotheses: (a) we assume that a verb+ particle is a morphologically productive combination if the meaning of the given particle can be inferred from its original directional meaning; (b) the meaning of the particle is derivable from its directional meaning if it can be considered

to be the metonymic extension of the latter. Combinations should be morphotactically productive as well. The presence of neologisms will be used as a test to check the productivity of the contemporary verb particle constructions.

Dictionaries are a major source of information about verb particle constructions and with respect to the regular patterns of verbs and particles there seems to be a high level of agreement among them, although the newest combinations are provided by electronic dictionaries.

The collected data allow us to observe the following. The directional particle *out* may have a number of related meanings which may all be regarded as literal and thus transparent. The particle *out* with a literal meaning ‘movement from the inside of an enclosed space or container to the outside of it’, may not only be used to indicate the direction of movement (e.g. *fly out*, *throw out*), but also to express the direction of perception (e.g. *look out*) which can be extended to other verbs of perception that do not involve movement (e.g. *blab out*). Furthermore, *out* can be used with action verbs which bring about a bulge or boss (e.g. *bulge out*) or bring about a deepening or hole (e.g. *bore out*). *Out* can also be found in combinations that mean that someone does not remain in a place or remain at home, but goes out, somewhere else (e.g. *eat out*) and also be found with verbs to indicate that something increases in physical size or extent (e.g. *stretch out*). Thus, it seems plausible to assume that the direction indicated by the particle *out* can be conceptualized in various ways. The directional meaning which is most apparent in the case of verbs of movement can be extended to other action verbs involving movement. The other uses of the particle represent different extensions of the directional meaning. However, there are many other combinations in which *out* can be found in a significant number and although the particle loses its directional meaning in particular combinations, it still compositionally adds a specific meaning to the verbs which form systematic classes with common semantic features. For example, *out* is used extensively in combinations with verbs which describe actions to indicate that the action is done thoroughly or completely, especially with the verbs related to cleaning activities (e.g. *scrub out* or *clean out*) or with verbs which refer to the distribution or sharing of things among different people (e.g. *ration out*).

These data allow us to set up the following semantic classes of verbs and the particle *out* with the directional sense and the senses of completion and, distribution or sharing. The findings are grouped in Table 3 and Table 4 respectively according to the two different sets of meanings.



**Table 3. The distribution of verb particle meanings with literal/directional OUT**

Meaning of the particle <b>out</b>	Semantic verb classes	Examples
direction of movement	verbs of motion (1)	run out, walk out, creep out, fly out, jump out, move out, bounce out, crawl out, tip out, swim out, hop out, ride out, troop out, slip out, jog out, dash out, fling out, stroll out, schuffle out, rush out, head out, slide out, sneak out, float out, sail out, drive out, trot out, wriggle out, dive out, gallop out, march out, lean out, hang out, race out, flee out, spring out, canter out, trickle out, squirm out, leap out, waggle out, wag out, stride out, strut out , trudge out, hobble out, roam out ,gush out, dance out ( <b>49 verbs</b> )
direction of action involving movement	action verbs (2)	throw out, cast out, chase out, carry out, blow out, push out, pull out, burst out, break out, tumble out, pitch out, loll out, flood out, drag out, fling out, crush out, chuck out, bundle out, fling out, knock out, ooze out, pop out, pour out, scoop out, scrape out, scratch out, leak out, pluck out, jerk out, bail out, tweak out, fish out, tug out, spurt out, squirt out, yank out , bash out ( <b>37 verbs</b> )
direction of action which does not involve movement	verbs of perception (3)	look out, peep out, peek out, gaze out, stare out, spy out, glance out, glimpse out, squint out, blab out, blunder out, call out, blurt out, rap out, shout out, yell out, bawl out, peer out, sob out ( <b>19 verbs</b> )
the action brings about a deepening or hole	action verbs (4)	bore out, bite out, cut out, hew out, hollow out, delve out, pump out, root out, weed out, pluck out, dredge out, squeeze out, bale out, whip out, claw out, gouge out, spoon out, siphon out, scoop out, snip out, tear out, pump out, scratch out, flush out, screw out, carve out, saw out, chip out, crush

		out, burrow out ( <b>30 verbs</b> )
the action brings about a bulge or boss	action verbs (5)	bulge out, pop out, swell out, stand out, pile out, puff out, stick out, surge out, belly out, break out, froth out, fizz out, hatch out ( <b>13 verbs</b> )
locations outside and away from home	action verbs (6)	bed out, board out, camp out, dine out, sway out, eat out, hide out, marry out, invite out, sit out, plant out, sleep out, stay out, take out, peg out, mail out ( <b>16 verbs</b> )
increasing in size, shape, or extent	action verbs (7)	branch out, spread out, roll out, stretch out, reach out, sprawl out, puff out, widen out, lengthen out, spin out, string out, space out, pad out, fan out ( <b>14 verbs</b> )

Table 4. **The distribution of verb particle meanings with aspectual OUT**<sup>27</sup>

Meaning of the particle <b>out</b>	Semantic verb classes	Examples
thoroughness and completeness of an action	action verbs of cleaning (1)	clean out, clear out, brush out, comb out, dry out, thin out, scrub out, sweep out, rinse out, iron out, wipe out, wash out, tidy out, empty out, thrash out, swab out, wring out, muck out, slop out, cleanse out, launder out, bleach out, sponge out, rub out, scrape out ( <b>25 verbs</b> )

<sup>27</sup> Aspectual phrasal verbs, as defined by Celce-Murcia and Larsen-Freeman (1999: 432), are phrasal verbs whose meaning is not as transparent as literal phrasal verbs, but the meaning is not idiomatic either. These phrasal verbs contain particles which contribute consistent aspectual meaning to the verbs, e.g. completion. Aspectual verbs are further subdivided into “semantic classes depending on the semantic contribution of the particle”. In this study we claim that phrasal verbs (or verb + particle combinations in this dissertation) with literal/directional meanings generally also express perfective aspect as in the case of e.g. motion verbs, but in the case of motion verbs or action verbs implying motion the perfectivizing factor is direction itself. As for the other classes, particles express resultativity having a closer or more remote connection with the meaning of direction.

divide or distribute	action verbs (2)	count out, dish out, dole out, fork out (infor.), lend out, measure out, parcel out, portion out, serve out, separate out, share out, spoon out, weigh out, loan out, rent out, hand out, apportion out, winnow out, dose out ( <b>19 verbs</b> )
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As can be seen, the particle *out* occurs with a certain proportion of the verbs in a given semantic class, and this proportion varies considerably from class to class. The degree of productivity of the particle *out*- in the given sense is determined by the possibility to extend the class with new members. The larger the number of verbs in a class that form acceptable verb particle constructions with the particle *out*, the more productive the particle is. We will use the proportion of valid verb particle constructions as a metric to determine the degree of productivity of a given class.<sup>28</sup>

In Table 3, we can see that the particle can occur almost unrestrictedly with any verb of motion, motion verbs form the biggest semantic class. The lexical rule that forms new words from the verbs of motion does not restrict the formation of a verb particle combination, i.e. the particle and the base are compatible from both structural and pragmatic aspects – thus the new formations are morphotactically productive. What we have is an open-ended class of verbs which can be further extended with new members and the particle *out* retains its directional meaning in the new combination. The meaning of the combination can be easily inferred from the meaning of its parts – the base verb and a particle – thus the criterion of morphosemantic transparency is fulfilled as well. Moreover, *out* attaches freely to recent motion verbs and retains its directional meaning. Consider the combinations formed from the motion verbs connected to extreme water sports (the examples are retrieved from Google advertising extreme sports at Miami Beach <http://www.smartdestinations.com/miami.../miami-beach->), e.g.

***Parasail out*** over 800 feet over the turquoise blue Atlantic Ocean just off South Beach.

***Yacht out*** on calm blue water close to the beach of a tropical island.

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<sup>28</sup> The use of the increasing proportion of acceptable verb particle combinations, i.e. openness of the class refers in this study to the possibility to extend the class of verbs with a given particle and not to the frequency of particle occurrence with a certain verb.

Similarly, we obtain combinations like *cruise out*, *water-ski out*, *sailboat out*, *canoe out*, *jetski out*, etc. all of which are acceptable and transparent to both native and non-native speakers. Moreover, neologisms can be virtually obtained from every field of life. Consider, for instance, *storm*, the verb of natural phenomenon, which functions as a motion verb when it occurs with the directional particle and has the meaning ‘leave a place angrily’. This use is more typical of informal language, e.g.

*Then she threw a gin and tonic in my face and **stormed out*** (the example is taken from the September edition of Marie Claire women’s magazine, 2009).<sup>29</sup>

These recent neologisms, the class of which is gradually enriched, provide enough evidence for the contemporary use and productivity of the particle *out* with verbs of motion. The lexical rule that generates these combinations can also be easily formulated:

**input: any motion verb → output: motion verb + directional prt *out***

Thus we consider these derivatives to be fully productive. The directional meaning of the particle *out* with motion verbs is further extended to action verbs involving movement, which is the second biggest semantic verb class that makes the attachment of the particle possible. The numerous examples also allow us to assume that this class of verbs is open and virtually any action verb involving movement can combine freely with the directional particle and the meaning of direction is retained by combinations. Thus, this class receives similar interpretation to the class of motion verbs and we will consider action verbs involving movement as a class of fully productive verb particle combinations. The meaning of the particle denotes the direction of movement in other classes as well or emerges by a conceptual shift from this meaning (cf. Table 3).

However, not every class seems to be completely open to acquire new members, e.g. among the verbs of perception, the particle *out*, with the sense of direction, appears to be completely productive only with verbs denoting visual activity and verbs of speaking, but it does not add directional meaning to the other verbs of perception such as *hear out*, *listen out*, *smell out* and *sound out*; in fact, in these cases the particle has an aspectual function and we have to deal with action verbs rather than with those of perception. Thus, it would be

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<sup>29</sup> The combination *storm out*, however, is semi-literal with the particle but not the verb contributing its simplex meaning (cf. the detailed verb-particle classification in section 3.3).

plausible to treat this class of verb-particle constructions as semi-productive. Although it is possible to find several exceptions in the other classes as well, the significant number of productive formations still outweighs unproductive formations, so we will consider the classes in Table 3 morphologically productive, as all of them fulfil the criteria of morphological productivity.

The motivation for capturing productive cases of verb particle constructions is not only to extend the coverage of existing combinations, as was shown above, but also to define those fine-grained classes of verbs and particles that appear to be systematic in the lexicon. In these cases the lexical rules should account for various classes of verb particle constructions that form grammatical combinations. As can be seen from Table 4, the particle *out* occurs with a range of verbs and appears to be productive with particular classes. If we follow Fraser (1976), and agree with his assumption that a group of verbs fall into a class because of some common underlying semantic features, we can establish systematic combinations of a verb and a particle in which verbs denote some cleaning activity and the particle *out* is better analysed as an aspectual particle, which adds the sense of thoroughness and completion to the action denoted by the verb (class 1); and verbs can also denote the division or distribution of something to someone with the particle *out* also bearing an aspectual sense in these combinations (class 2). Although each class lists a considerable number of verbs having semantic features in common, Fraser (1976: 12) mentions that we still have to account for the non-occurrence of the combinations like *\*grant out* or *\*offer out* (semantically these can belong to the verbs of division and distribution). Perhaps these combinations could be excluded because of semantic properties of the verbs. Fraser notices that we have no way of determining from any syntactic or semantic properties associated with a verb whether or not it will combine with a particle in one way or another. As was already mentioned above, according to Fraser, in most cases it is the phonological shape of the verb that determines to a large extent whether or not it can combine with a particle. For example, in many instances a polysyllabic verb already embodies the notion contributed by the particle (e.g. the *out* in *distribute*) and thus the form *distribute out* would be semantically redundant. A lot of verbs denoting division and distribution processes can occur with aspectual *out* as seen in the table. But if we want to extend the class and use some other semantically related verbs that can fall into this class and the particle *out*, we find the combinations to be implausible e.g., *\*donate out*, *\*allot out*, *\*disperse out*, *\*prorate out*, *\*disburse out*. This class of verb particle combinations which is subject to restrictions in productivity will thus be considered semi-productive.

The results obtained suggest the following. We managed to set up at least nine semantic classes of verbs with the particle *out*, in which we can see the productivity in two basic patterns:

1. the directional particle *out* can occur productively with any verb of motion, action verb that implies motion and other action verbs that do not imply motion; the meaning of the morphologically complex verb is transparent, the particle retains its directional sense. The morphologically productive cases can be explained by the lexical rule that generates verb particle constructions with transparent meanings. These constructions serve as examples of full morphological productivity with the exception of the class of verb particle constructions denoting perception. This is the only class of verbs with the directional particle *out* which is to be treated as semi-productive.
2. verbs of cleaning and verbs of division and distribution form productive aspectual combinations, with the particle *out* giving the sense of thoroughness and completion to the verbs of cleaning and emphasizing the action of dividing, distributing and sharing something described by the verb. The latter class turned out to be semi-productive.

It should be made clear that the details of the conceptualizations of the directional particle are far from being clear-cut, the exact number of the semantic classes of verbs which occur with the particle in a productive manner is impossible to identify due to the continuous development of the language and the enrichment of the vocabulary. Nonetheless, the obtained results are encouraging and provide us with a reasonable initial solution to the productivity problem of verb particle constructions.

#### *5.2.2.2 Productivity of the particle UP in verb particle constructions*

It is not without interest to compare the productivity of the particle *up* with that of the particle *out* in verbal constructions. Following the assumptions made in the previous section, we take those constructions morphologically productive which involve the literal meanings of the verb and particle, and have transparent semantics. Table 5 summarizes the semantic classes of verbs and the directional particle *up* with the meaning ‘upward movement, from a lower position or level to a higher one’.

Table 5. **The distribution of verb particle meanings with directional UP**

Meaning of the particle <b>up</b>	Semantic verb classes	Examples
direction of movement	verbs of motion (1)	come up, go up, climb up, run up, walk up, speed up, leap up, jump up, skip up, move up, creep up, fly up, ride up, drive up, hop up, lurk up, step up, race up, dash up, crawl up, creep up, spring up, jog up, stroll up, wander up, gallop up, waggle up, writhe up, hobble up, stride up ( <b>30 verbs</b> )
direction of action involving movement	verbs of action (2)	throw up, lift up, carry up, pull up, push up, fling up, pick up, take up, draw up, cast up, bring up, bear up, root up, hold up, pluck up, dig up, shoot up, toss up, punch up, nudge up, hitch up, hook up, dredge up, touch up, chock up ( <b>25 verbs</b> )
direction of action which does not involve movement	verbs of perception (3)	look up, gaze up, glance up, peep up, squint up ( <b>5 verbs</b> )
the action brings about a boss or increase in quantity	verbs of action (4)	pile up, puff up, surge up, swell up, whip up, bulge up, froth up, fizz up, whip up, fatten up ( <b>10 verbs</b> )
the action brings about an opening or separation	verbs of division (5)	split up, crack up, tear up, snip up, hack up, cut up, chop up, divide up, slice up, parcel up, break up, carve up, open up, smash up, plow up ( <b>15 verbs</b> )
the action indicates fastening	verbs of action (6)	bandage up, belt up, bind up, board up, bundle up, button up, chain up, fasten up, hang up, hook up, lace up, nail up, pen

		up, pin up, plug up, tie up, string up, tense up, tighten up, strap up, truss up, sew up, prop up, stitch up, wire up, trammel up (26 verbs)
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As can be seen, we have managed to set up six semantic classes of verbs in which the directional meaning of the particle *up* is discernible. From the ‘direction of movement’ one can go to the ‘direction of action involving movement’ to the ‘direction of perception’ and the ‘direction of change’– the classes to which the direction described by the particle extends metonymically. Apparently, morphologically the most productive class of verb particles is the class of motion verbs with *up*, which allows for new members almost unrestrictedly. Neologisms such as *sky fly up* or *hang glide up* may confirm this fact (although note the exceptions, for example, one would not say *\*slide up* and *\*slip up*, similarly, *?sledge up* and *?kayak up* are also odd – here the directionality denoted by the verb itself is involved). The class of action verbs which do not involve movement, i.e. verbs of perception with directional *up* should be treated as semi-productive. With the directional *up*, verbs of perception seem to be even more restricted than with the particle *out*. The reasons for this are twofold: first, only the verbs of seeing show productivity among which we can find exceptions as well, e.g. while *glance up* and *gaze up* are acceptable, *\*glimpse up* is odd. Secondly, other verbs of perception such as *hear*, *hope*, *resemble*, *taste*, etc. form the class of stative verbs which practically never combine with a particle.

Classes (4), (5) and (6), using Fraser’s terms, are the classes of systematic verb-particle combinations in which the verbs are semantically related and the classes of these verbs can be extended. If new verbs with similar semantic features cannot join this class, this is perhaps due to the semantic properties of the verbs. As Lipka (1972: 131) notes in connection with verb particle combinations, “We can only establish certain tendencies and describe existing patterns, the predictive power of such statements is fairly limited”. The lexical rule that generates morphologically productive verb particle combinations can be formulated as follows:

<b>input: motion verb</b>	→	<b>output: motion verb + directional prt <i>up</i></b>
<b>action verb involving movement</b>		<b>action verb invol. movement + dir <i>up</i></b>



Even though the particle *up* occurs productively with a wide range of verbs with which it retains directionality, there are also productive cases where *up* is used as an aspectual particle. Fraser (1976: 15) quotes and discusses a statement by Whorf (1956) about the productivity of *up* meaning ‘completely, to a finish’ mentioning hereby several restrictions:

... the English particle “up” meaning ‘completely, to a finish’ as in break it up, cover it up, eat it up, twist it up, can be applied to any verb of one or two syllables initially accented, excepting verbs belonging to four special cryptotypes. One is the cryptotype of dispersion without boundary; hence one does not say ‘spread it up, waste it up, spend it up, scatter it up, drain it up, or filter it up’. Another is the cryptotype of oscillation without agitation of parts; we don’t say ‘rock up a cradle, wave up a flag, wiggle up a finger, nod up one’s head’, etc. The third is the cryptotype of non-durative impact which also includes psychological reaction: kill, fight, etc., hence we don’t say ‘whack it up, tap it up, stab it up, slam it up, wrestle him up, hate him up. The fourth is the verbs of directed motion, move, lift, pull, push, put, etc., with which “up” has the directional sense, ‘upward’, or derived senses ...

Thus, according to Whorf, there should be groups of verbs with which the particle *up* has an aspectual function. The aspectual or completive *up* suggests that the action is intensified and taken to some conclusion. For example, in the sentence *John ate the sandwich up*, the sandwich is totally consumed at the end of the action. Although we can find numerous combinations of verb particle constructions with aspectual *up*, only the systematic cases will be considered to be productive. Among such systematic combinations we could establish the following classes of verbs that combine productively with the aspectual *up*: verbs of eating and drinking, verbs of cooking, verbs of cleaning, verbs of collection, verbs of action denoting enclosure. *Up* has a metaphorical meaning to do with increase in intensity with class (4). Table 6 summarizes the distribution of verb particle meanings.

**Table 6. The distribution of verb particle meanings with aspectual UP**

Meaning of the particle <b>up</b>	Semantic verb classes	Examples
Completion and finishing	verbs of eating and drinking (1)	eat up, drink up, swallow up, gobble up, slurp up, suck up, sup up, guzzle up, chew up, gulp up,

		finish up, booze up ( <b>12 verbs</b> )
	verbs of cooking (2)	boil up, fry up, brew up, heat up, cut up, chop up, mix up, stir up, stew up, bake up, blend up, grill up, spice up, whisk up, mash up, simmer up, grind up ( <b>17 verbs</b> )
	verbs of cleaning (3)	clean up, mop up, tidy up, wash up, soak up (e.g. water), clear up, dry up, sweep up, muck up, wipe up, sop up, dust up, freshen up, slick up, neaten up, polish up, scour up, spruce up, straighten up, blot up, vacuum up, swab up, pry up, stub up ( <b>24 verbs</b> )
the action brings about an increase in intensity	verbs of action (4)	blaze up, brighten up, flare up, flame up, grow up, bump up, heat up, hot up, light up, pep up, perk up, play up, sharpen up, speak up, stir up, warm up, sing up, shine up, drum up, sing up ( <b>20 verbs</b> )
the action indicates enclosure	verbs of action (5)	block up, bottle up, clog up, cork up, dam up, earth up, fog up, freeze up, gum up, ice up, lock up, fold up, shut up, wall up, zip up, plug up, mist up, muffle up, silt up, seal up, steam up, brick up ( <b>22 verbs</b> )
the action indicates collection of some things together	verbs of collection and togetherness (6)	bag up, bunch up, bundle up, coil up, collect up, crate up, gang up, gather up, herd up, hoard up, join up, link up, scrape up, sweep up, team up, pick up, pair up, knot up ( <b>18 verbs</b> )

Among all semantic classes, five classes of verb particle constructions – classes (1), (2), (3), (5) and (6) can be treated as completely productive. We have the cases of systematic verb particle combinations, there is a common semantic thread running through the verbs in these classes, each class contains semantically similar verbs and the proportion of verbs that can occur with the aspectual *up* is rather high and there is still room for expansion. Class (4) containing verbs of action with which the particle *up* denotes an increase in intensity represents unsystematic cases of verb particle combinations and to predict which verb can join the class is very hard. Besides, as Fraser (1976: 7) notes, there is no obvious way of predicting

the effect that the addition of the particle has on the interpretation of the verb. Thus, this class of verb particle combinations will be treated as unproductive. Although there can be found several exceptions among the systematic classes as well, their number is not significant and non-occurrence of verbs with *up* can often be explained. For example, the verbs of cleaning show full productivity with *up* and, adopting Fraser, only verbs containing more than two syllables cannot combine with this particle, consider *\*disinfect up*, *\*sanitize up*, *\*sterilize up* (Language Log: A Stubborn Survival, 2004 available at <http://itre.cis.upenn.edu/.../language/.../000781.html>). However, *\*launder up* is a two-syllable verb particle combination and yet not possible. The explanation here probably has something to do with the origin of the verb – *launder* is a loan-word from French.<sup>30</sup>

As we can see from the significant number of semantic classes, the number of aspectual combinations almost equals to directional ones and this suggests that *up* combines as productively with verbs with which it has the sense of completion as with verbs with which it retains directional sense. Moreover, if we examine directional combinations more closely, we can notice that the directional meaning of *up* often combines with a goal meaning: *to pull something up*, when the verb is used in its literal sense, is usually to pull it both upwards and to some final, high position. According to Denison (1985: 48), it is easy to imagine that the particle might begin to lose its spatial sense and come to be perceived as an Aktionsart marker of completion. Denison mentions that due to the permutation of senses, intransitives like *grow*, *rise*, *sit* and transitives like *pick*, *raise* could take part in collocations with *up* in which the particle begins to lose its spatial sense and comes to be perceived as an Aktionsart marker of completion, while the simple verb retains its usual sense. A completive meaning could then develop alongside the spatial meaning in collocations with verbs that do not incorporate upward motion in their own meanings but which are semantically compatible with it. This includes verbs of motion like *move*, *put*, and certain other action verbs like *drink*, *fill*. For instance, *drink up* might change from *drink* (usual sense) + *up* (marker of direction with effective value) to *drink* (usual sense) + *up* (marker of totality or completion). In this investigation, we will disagree with Denison that the spatial sense of the particle *up* in every case changes to the sense of completion. Rather, we assume that *up* with action verbs

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<sup>30</sup> Trevor at Kaleboel (<http://itre.cis.upenn.edu/.../language/.../000781.html>) classifies cleaning verbs into two groups: (i) cleaning verbs that work with *up*, e.g., *clean up*, *dust up*, *freshen up*, *mop up*, *polish up*, *slick up*, *tidy up*, etc. and (ii) those that do not, e.g. *\*decontaminate up*, *\*disinfect up*, *\*launder up*, *\*sanitize up*, *\*sterilize up*. In his opinion, “there are clearly some things that separate the two lists. Etymological source is somewhat predictive (verbs of germanic origin tend to work, verbs of romance and latinate tend not to), and so is sound structure (short verbs tend to work, long verbs tend no to).”

involving movement may carry mixed directional-completive senses, i.e. these senses coexist and the completive sense expressed by the particle extends to new classes of verbs via metaphoric extension. The lexical rule thus will be modified in the following way:

**input: motion verb → output: motion verb + directional - completive *up***

### 5.2.2.3 Productivity of the particle *DOWN* in verb particle constructions

The literal meaning of *down* is to do with movement from a higher position or level to a lower one. *Up* can often be used instead of *down* to indicate movement in the opposite direction. Let us now consider to what extent the semantic classes of verb and the directional particle *down* are similar or different from those with *up*. The findings are shown in Table 7.

Table 7. **The distribution of verb particle meanings with directional *DOWN***

Meanings of the particle <b>down</b>	Semantic verb classes	Examples
direction of movement	verbs of motion (1)	come down, go down, rush down, swim down, fly down, run down, jump down, move down, step down, slip down, march down, slide down, race down, gallop down, crawl down, creep down, drive down, bob down, sledge down, ski down, lie down, kneel down, leap down, jog down, walk down, cycle down, hop down, trip down, hunker down, squat down, stoop down ( <b>31 verbs</b> )
direction of action involving movement	verbs of action (2)	throw down, fall down, push down, shake down, crack down, pull down, roll down, carry down, hurl down, pour down, shin down, knock down, hang down, blow down, chop down, fling down, tumble down, chuck down, drag down, cast down, ooze down, hold down, pelt down, beat down, piss down, teem down, swoop down, saw down, mow down, break down ( <b>30 verbs</b> )

direction of action which does not involve movement	verbs of perception (3)	look down, stare down, gaze down, shout down, call down, glance down, glimpse down, squint down ( <b>8 verbs</b> )
the action indicates fastening and fixing	verbs of action (4)	batten down, batter down, bolt down, button down, cement down, chain down, clamp down, fasten down, glue down, hammer down, lash down, nail down, paste down, pin down, tack down, tighten down, tie down, stick down, rivet down, screw down, staple down, tape down ( <b>22 verbs</b> )
the action brings about an even surface	verbs of action (5)	smooth down, level down, tread down, tramp down, pat down, tamp down, sand down ( <b>7 verbs</b> )

The comparison of verb particle constructions with directional *up* and those with *down* suggests the following. It is easy to recognise that directional *up* with the idea of movement towards a higher position is contrasted with *down* describing movement to a lower position in many classes. Denison (1985: 57) notes that the antonym of *up* in spatial use is *down* and it developed the same uses just in the opposite direction. However, not all classes have contrastive pairs in the corresponding classes. While we have, for instance the class of action verbs denoting opening with directional *up*, we do not have the correspondent verb particle combinations with *down* which would denote closing. Similarly, *down* has a meaning to do with ‘ending’ but cannot be contrasted with the idea of ‘opening’ of *up* as we would expect. This is a metaphorical meaning of the particle and can be contrasted only with the idea of ‘completion’ of *up* which is by no means the opposite of ‘ending’ denoted by *down* (e.g. the opposite of *close up* ‘completeness’ is not *close down* ‘ending’). And while we have the literal meaning of *up* to do with the increase in quantity (i.e. something is moving upwards), we do not have the opposite meaning for directional *down*. But *down* in many cases seem to do with decreases in size and intensity, which is again a metaphorical use of the particle. Thus the classes cannot be contrasted totally.

All semantic classes of verbs with directional *down* are morphologically productive excepting the class of verbs of perception (it is to be treated as semi-productive) for the reason

explained in the previous section. The lexical rule that generates these constructions is the following:

**input: motion verb /action verb →output: motion verb/ action verb + the directional prt  
*down***

Similar to *up*, *down* has also developed a number of aspectual meanings with certain verbs, and again we can account for many systematic combinations in which a clear connection between the literal meanings of the particle and its aspectual meanings is perceivable, such combinations can be treated as completely productive. The semantic classes are summarized in Table 8.

**Table 8. The distribution of verb particle meanings with the aspectual particle DOWN**

Meaning of the particle <i>down</i>	Semantic verb classes	Examples
Completeness	verbs of eating and drinking (1)	drink down, gobble down, swallow down, chow down, choke down, swig down, swill down, wolf down, gulp down, guzzle down, scoff down, slurp down, chug down, bolt down ( <b>14 verbs</b> )
	verbs of cleaning (2)	brush down, clean down, dust down, hose down, rub down, slick down, sponge down, swab down, wash down, wipe down, mop down, scrub down ( <b>12 verbs</b> )
	verbs of writing and recording (3)	copy down, draw down, jot down, mark down, note down, write down, scribble down ( <b>7 verbs</b> )
the action brings about a decrease in size and intensity	verbs of action (4)	scale down, play down, burn down, calm down, cool down, pare down, scale down, weigh down, slow down, tone down, wear down ( <b>11 verbs</b> )
ending	verbs of action (5)	close down, die down, flag down, hunt down, melt down, shut down, trip down, track

		down, wave down <b>(9 verbs)</b>
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We can see that *down* forms systematic combinations with verbs of eating and drinking, verbs of cleaning and verbs of writing and recording to which it gives a completive sense. As was shown, this sense of completion pervades many similar systematic verb-*up* combinations. The semantic classes including these combinations are fully productive due to the high proportion of verbs they include and further possibilities of extension. The semantic classes of verbs of action (classes (4) and (5)) with aspectual *down* are the unsystematic cases, the occurrence of a new verb with particular semantic features in these classes is unpredictable. These classes will be considered unproductive.<sup>31</sup> The lexical rule that generates productive systematic aspectual combinations is the following:

**input:** verb of eating and drinking → **output:** verb of eating and drinking + aspect. *down*

**verb of cleaning, etc.**                      **verb of cleaning, etc.**

#### 5.2.2.4 Productivity of the particle IN in verb particle constructions

The opposite of spatial *out* is *in* with the literal meaning to do with movement from the outside of an enclosed space or container to the inside of it. Let us examine if *in* can combine in a similar way to *out* with verbs in its literal meaning. Table 9 below contains the semantic classes of verbs with which *in* can occur preserving its directional meaning.

Table 9. The distribution of verb particle meanings with directional IN

Meaning of the particle <b>in</b>	Semantic verb classes	Examples
direction of movement	verbs of movement (1)	go in, come in, fly in, creep in, dance in, jump in, ride in, drive in, crawl in, swim in, hop in, troop in, slip in, sneak in, dart in, dash in, rush in, walk in, race in, canter in, march in, stroll in, barge in, step in, leap in, move in, stand in, dive in.

<sup>31</sup> Actually, the systematic cases amount to only a small part of the total part of the total verb-particle combinations in the language. The unsystematic cases are much more frequent (Fraser 1976: 7).

		shuffle in, skip in, climb in, flood in, kick in, dodder in, nip in ( <b>35 verbs</b> )
direction of action involving movement	verbs of action (2)	bring in, carry in, push in, pull in, jerk in, carve in, plug in, punch in, throw in, cast in, crush in, draw in, drag in, break in, cut in, dig in, burst in, blow in, send in, take in, tuck in, soak in, stave in, ring in, shoot in, knock in, hit in, slap in, haul in, rake in, spurt in, squirt in, pour in, poke in, prick in, stick in, shake in, squash in, squeeze in ( <b>39 verbs</b> )
direction of action which does not involve movement	verbs of perception (3)	look in, stare in, gaze in, peep in, glance in, peer in, peek in, listen in ( <b>8 verbs</b> )
the action brings about a deepening	verbs of action (4)	dent in, sink in, curve in, bite in, cut in, bash in, scrape in, scratch in, dig in, cave in, hew in, bore in, delve in, drill in, pierce in ( <b>15 verbs</b> )
the action results in the removal of a deepening and opening	verbs of action (5)	block in, box in, fence in, fill in, brick in, build in, clue in, lock in, seal in, cane in, wall in, plug in, buckle in, close in, wrap in, pack in, shut in, stick in, hem in, rope in (as to enclose with a rope) ( <b>20 verbs</b> )
the action indicates fastening	verbs of action (6)	weld in, screw in, bolt in, nail in, put in, hammer in, strap in ( <b>7 verbs</b> )
locations inside and at home	verbs of action (7)	stay in, lie in, eat in, dine in, live in, sleep in, stop in, wait in, sit in, hide in, jog in (neologism) ( <b>11 verbs</b> )

We have managed to set up seven semantic classes of verbs with which the particle *in* retains a clear directional sense or the metonymical extension of the direction. Similarl to the directional particles described above, *in* occurs most productively with verbs of motion and action verbs involving movement. These classes of verbs seem to be limitless and can



incorporate new members. For instance, consider the noun neologism *jet* which became a verb in the process of zero derivation from a noun and which functions as the ‘vehicle’ verb, named so by Levin (1993). The directional particle *in* can occur with this verb and the meanings of both the verb and the particle are clear; similarly it occurs with *rumba*, a ‘dance’ verb, retaining discernible directional sense, e.g.

*Jay-Z jetted in for MTV awards from coldplay show.* (<http://www.blog.taragana.com/.../jay-z-jetted-in-for-mtv-awards-from-coldplay-show-34888/->)

*She rumbaed in so gorgeously.* (<http://www.thedailymash.co.uk>).

In the informal language, it is not infrequent that the original meaning of the verb changes under the influence of the particle. For example, similar to *storm out*, we have *breeze in* whose meaning is ‘enter a place in a carefree manner’, whereas the simple verb means ‘blow lightly’ (from the *Free Online Dictionary*), e.g.

*She breezed in, two hours late.* (<http://www.yourdictionary.com>)

This phrase transfers the blowing of a light wind to human entrances.

Among action verbs, we can also find some recently used verbs which are beginning to replace the well established ones. Thus, *chuck* in many cases replaces *throw* and expresses the same meaning, however, it is more productive in informal uses. Directional *in* appears to occur productively with this verb, e.g.

*Use a food processor and chuck in 4 cloves of garlic, a quarter of red onion, some peppercorns and a bit of oil to make a puree...* (<http://www.notbob.com.recipes>)

These neologisms again provide enough evidence for the full productivity of motion verbs and verbs of action involving motion.

The class of verbs of perception is semi-productive due to the restrictions on multiple verbs of this class to occur with directional *in*.

Directional *in* occurs productively with verbs with which it can have other senses like ‘deepening’, ‘removal of the deepening and opening’, ‘fastening’ and ‘locations at home’ and all these senses can be considered to be the metonymic developments of the directional sense. The expanding potential of the classes is still not limited and the meaning of the particle is transparent. Thus, these classes can also be considered morphologically productive.

The particle *in* does not appear to be productive in its aspectual sense. We cannot find any systematic combinations which could be classified with pure aspectual *in*. But similar to the particle *up*, we may assume that the meaning of *in* with verbs of motion and action verbs denoting movement is not only directional but resultative as well (in these classes the two

meanings of the particle coexist). For example, in the sentence *Kim carried the television in*, at the end of the action the television is inside.

Though the particle *in* may seem to occur with a range of verbs to express an aspectual meaning, the combinations are mostly idiomatic and cannot be considered productive. For instance, *Collins Cobuild Dictionary of Phrasal Verbs* (1991) gives examples of combinations in which *in* expresses ideas of involvement with activities: *dabble in* ‘break into conversation’, *butt in* ‘interfere or meddle in other people’s affairs’, *chime in* ‘interrupt the speech of others’, *chisel in* ‘break into conversation’, *chip in* ‘interject remarks or questions into another’s discourse’, etc. These combinations build up a full resistance to being broken down, the meanings of the verbs and the particle in isolation are different from those in combinations. The lexical rule that generates morphologically productive verb particle combinations with directional *in* is the following:

<b>input: motion verb</b>	→	<b>output: motion verb + direct.-resultative <i>in</i></b>
<b>verb of action with movement</b>		<b>verb of action with movement</b>

### 5.3 Summary of the morphological productivity of verb particle constructions

Our aim has been to examine the morphological productivity of verb particle constructions with the four directional particles *out*, *in*, *up* and *down*. On the basis of the criteria of morphological productivity and the suggested hypotheses we have attempted to show that verb particle constructions with the directional (and aspectual) particles are very productive, while their prefixal counterparts are not. Prefixal verb combinations are very few in number, their class is closed and they should be considered frozen formations which are subject to a high degree of lexicalisation.

We have assumed that the morphological productivity of the verb particle constructions is accounted for by morphotactic productivity and morphosemantic transparency. However, it has turned out that the criterion of morphosemantic transparency does not apply fully, especially in the case of aspectual combinations where the aspectual meaning of the particle is not always consistent. Thus this criterion should be treated less strictly. Besides, we have managed to establish a lexical rule that can generate productive verb particle constructions which is as follows:

**input: motion verb (action verb involving motion)→ motion verb (action verb involv. motion) + directional/ aspectual prt.**

We have made a classification of the productive verb particle constructions and managed to show that the analyzed subsets of the four particles occur productively with a large number of verbs, the classes of which are open. It has turned out that the four particles can occur productively with verbs contributing to them not only the directional and resultative sense, but aspectual as well. The combinations extracted from the dictionaries with the aspectual particles are completely productive as they present cases of systematic formations of the verbs and the particles, the verbs of which are semantically related.

We have also shown that the range of existing combinations can be extended by new words and the examples of neologisms served as evidence for the productivity of contemporary verb particle constructions. Among the verb particle constructions with the four directional /aspectual particles, the particle which has appeared to be the most productive in its directional sense was *out*, the one involved in the largest number of combinations throughout several classes, and it is followed closely by *up*, which is productive not only in its directional sense but as an aspectual particle as well. In fact, *up* has turned out to be the most productive particle in the aspectual function of all the particles, as it can form the largest number of systematic verb particle combinations. On the other hand, directional *in* has appeared to be the least productive particle, which occurs with a smaller proportion of verbs in the established semantic classes. Moreover, *in* cannot occur productively with verbs in its aspectual meaning, no systematic aspectual verb particle combinations have been found.

To round everything up, we have tried to show as many productive verb particle constructions as possible with the four directional particles *out*, *in*, *up* and *down* but completeness is, of course, impossible to achieve due to the constant enrichment of the lexicon. We have seen that the directional meaning of the particles can be conceptualized not only metonymically but metaphorically as well, thus leading to the emergence of the aspectual meaning of the particles. And although the details of the conceptualizations of spatial directions are far from being clear-cut, the approach presented towards the productivity study of verb particle constructions may help us not to feel overwhelmed and confused but encourage us to study and use particles on the basis of their meanings in a systematic way.

Finally, this productivity study of verb particle constructions underpins the fact that the semantics of verb particle constructions (at least with the four particles examined) are not arbitrary, in contradiction to most previous analyses of verb particle constructions, which have viewed them as closer to idioms; the meanings of verb particle constructions are directly

related to the individual meanings of the component verbs and particles by metonymical or metaphorical extension.

#### 5.4 Productivity of verb particle constructions with Levin's verb classes

In this section we investigate the possibility of using Levin's (1993) classes of verbs to extend the already established semantic classes of verbs which allow attachment of the four directional/aspectual particles and to generate additional acceptable verb particle constructions.

In Levin's classification there are 190 classes and subclasses that capture 3,100 different verbs listed, resulting in 4,167 entries, since each verb can belong to more than one class. For example, the verb *to run* belongs to classes 26.3 (Verbs of Preparing), 47.5.1 (Swarm Verbs), 47.7 (Meander Verbs) and 51.3.2 (Run Verbs). While checking for productivity, only the clear-cut classes will be considered, for example, the verb *run* is assumed to belong to the class of Run Verbs, implying that this is a verb of motion. The number of elements in each class varies considerably, with many classes having more than 10 elements and some less than 10. All verbs of the classes which can accept directional /aspectual particles are checked by taking each verb and appending the particle to it. Having the exact verbs of a certain class that can combine with a directional particle, we can judge the degree of the productivity of verb particle constructions that are formed from a particular class. Levin's (1993) motion verbs were used to generate novel combinations not found in dictionaries. The validity of the possible constructions is checked in the paper and online dictionaries, and if not found there, the acceptability is judged by native speakers. We start the discussion with the most susceptible classes to appear in combinations with the four directional/aspectual particles *out*, *in*, *up*, *down*.

As has been shown in the previous sections, the most productive classes of verbs with which the directional particles can occur almost unrestrictedly proved to be verbs of motion. It thus seems logical to check if Levin's 'motion' verbs allow attachment of the particles. The largest class is the verbs of manner of motion (class 51.3). Levin (1993: 264- 265) distinguishes two sub-classes: Roll verbs (class 51.3.1) and Run verbs (51.3.2). Apparently, the inner semantic qualities of the verb may prevent productive formations with the particle *up*. Although individual verbs of this class seem to occur with only one particle or another

(e.g. *bounce up/down*, but *coil up*), as a group most Roll verbs can combine productively only with the directional *down*:

*bounce down, drift down, glide down, move down, roll down, slide down, swing down, twirl down, whirl down.* (**9 verbs of 18**)

What Levin (1993: 265) called Run verbs and Levin and Rappaport Hovav (1995: 282) later renamed agentive verbs of manner of motion is the largest and most important ‘motion’ class. It encompasses verbs which describe the manners in which animate entities can move. The direction is implied by any directional particle *out*, *in*, *up* or *down* that can combine freely with these verbs:

*amble, backpack, bolt, bounce, bound, bowl, canter, carom, cavort, charge, clamber, climb, clump, coast, crawl, creep, dart, dash, dodder, drift, file, flit, float, fly, frolic, gallop, gambol, glide, goosetep, hasten, hike, hobble, hop, hurry, hurtle, inch, jog, journey, jump, leap, limp, lollop, lope, lumber, lurch, march, meander, mince, mosey, nip, pad, parade, perambulate, plod, prance, promenade, prowl, race, ramble, roam, roll, romp, rove, run, rush, sashay, saunter, scamper, scoot, scam, scramble, scud, scurry, scutter, scuttle, shamble, shuffle, sidle, skedaddle, skip, skitter, skulk, sleepwalk, slide, slink, slither, slog, slouch, sneak, somersault, speed, stagger, stomp, stray, streak, stride, stroll, strut, stumble, stump, swagger, sweep, swim, tack, tear, tiptoe, toddle, totter, traipse, tramp, travel, trek, troop, trot, trudge, trundle, vault, waddle, wade, walk, wander, whiz, zigzag, zoom.* (**total 125 verbs 100%**)

Levin lists 125 verbs, which is a significant number, but assumingly there can be even more verbs belonging to this class and thus the class of motion verbs is still open for new members.

Verbs of motion involving a vehicle (Levin 1993: 267, class 51.4) also constitute a large class in English and all the verbs of this class can combine with the directional particles. This class constitutes verbs that are vehicle names, that is in Levin’s terms “skate” verbs (class 51.4.1):

*ballon, bicycle, bike, boat, bobsled, bus, cab, canoe, caravan, chariot, coach, cycle, dogsled, ferry, gondola, helicopter, jeep, jet, kayak, moped, motor, motorbike, motorcycle, parachute,*

*punt, raft, richshaw, rocket, skate, skateboard, ski, sled, sledge, taxi, toboggan, tram, trolley, yacht.* (**39 verbs of 39** can combine with *out, up, down* and *in*)

Although generally it is possible to say that the directional particles can combine with these verbs productively, we should always bear in mind the semantic features of the verb, that is the direction of movement in many cases is implied by the verb. Thus, we will not have *parachute up* only *parachute down*, similarly *sledge* can only be *down*.

Another class is verbs that are not vehicle names, that is “pedal verbs” (class 51.4.2): *cruise, drive, fly, oar, paddle, pedal, ride, row, sail, tack* (**10 verbs of 10** combine with the subset of four directional particles). This class of verbs is prone to incorporate new members through neological processes, in particular by conversion or zero derivation of a noun into a verb. In fact, the name of almost any vehicle can be converted into a verb meaning ‘to travel by means of that vehicle’. These verbs again productively combine with the directional particles.

Among Levin’s (1993: 268) ‘motion’ verbs we can also find Waltz verbs (class 51.5). These are verbs that mean ‘to dance’ and can also productively combine with the directional particles:

*boogie, bop, cancan, clog, conga, dance, foxtrot, jig, jitterbug, jive, pirouette, polka, quickstep, rumba, samba, shuffle, squaredance, tango, tapdance, waltz.* (**20 verbs of 20** combine productively with *out, in, up* and *down*)

These verbs usually come from the names of dances. In fact, the name of any dance can be turned into a verb in English. Their meaning involves motion, but it does not indicate directed motion unless it appears with the directional particle.

Among Levin’s ‘motion’ classes of verbs we find several classes whose number is rather small. Thus, for example, there is a class of Rush verbs (class 53.2) which includes only three members: *hasten, hurry, rush* and these verbs again are used productively with all four directional particles. Similarly, Slide verbs (class 11.2) have also few members (**5 verbs**), all of which are included in other classes as well, the already mentioned Skate verbs and Run verbs. These are: *bounce, float, move, roll, slide* and Drive verbs (class 11.5) that include *barge, bus, cart, drive, ferry, fly, row, shuffle, truck, wheel, wire* (**11 verbs**). All four directional particles combine productively with these verbs. All of these verbs serve as clear evidence for the full productivity of the directional particles with the class of motion verbs.

Many of Levin's 'motion' verbs can well serve as neologisms to generate newer formations with the particles and to confirm their productivity.

Next we will check if our established class of action verbs involving movement can correspond to Levin's classes. Thus among Levin's verbs that imply motion or location we can find Bring verbs (class 11.3) having only two members: *bring* and *take* which form accepted combinations with all four particles; there is also a class of Carry verbs (class 11.4), of which a rather big proportion can form acceptable combinations with some directional particles. These are: *carry, drag, haul, heave, heft, hoist, kick, lug, pull, push, schlep, shove, tote, tow, tug*. Most of these verbs can form productive combinations only with *up* and *down* but not with the other two directional particles. But even *up* and *down* do not occur with every verb. Thus, for example, while *carry up, haul up, heave up, heft up, shove up* are completely acceptable, *hoist up* seems odd, this is an unattested combination in the dictionaries and does not sound acceptable to native speakers either. Another class is Push/Pull verbs (class 12) which contains the following verbs: *draw, heave, jerk, press, pull, push, shove, thrust, tug, yank* (**10 verbs**). This class of verbs already appears to be more productive than the previous one, as almost every verb can combine with all four particles, excepting *tug* and *yank*, which combine only with *out*.

Although we can find a number of verbs implying motion among Levin's action verbs, the cases analysed did not bring positive results concerning the productivity of the directional particles with these verbs. For example, among Levin's 30 Throw verbs (class 17.1), only few verbs allow attachment of the directional particles *in* and *out*: *cast (in/out), chuck (in/out), flick (out), fling (out), hit (in/out), hurl (out), kick (in/out), lob (out), shove (in/out), sling (out), hammer (in)* (**11 verbs of 30**). Other combinations with the directional particles cannot be formed (e.g. *\*bash/\*bang/\*batter/\*beat/\*bump/\*butt/\*drum out/ in/ up/ down*), thus this class of verbs with directional particles cannot be considered productive. Similarly, Levin's (1993: 115) Pour verbs (class 9.5) can combine productively only with the directional *out*: *dribble out, drip out, pour out, slop out, spew out, spill out, spurt out*, but *?slosh out* (**7 verbs of 8**). Some of the constraints that arise may be due to register, others to general blocking principles. The frequency with which a given combination occurs may also influence acceptability judgements. The directional particles in the above combinations, besides directionality, also add the sense of resultativity to the verbs.

The third semantic class of verbs that allows productive formations with the directional particles was our verbs of perception involving direction. In the previous section, we already pointed out that this class is subject to many restrictions due to the nature of the

verbs and should be treated as semi-productive – only a limited number of verbs (usually the verbs of visual activity) can form productive combinations with the particles.

Levin (1993: 185-194) gives multiple classes of verbs of perception and communication like See verbs (class 30.1), Sight verbs (class 30.2), Say verbs (class 37.7), Peer verbs (30.3), Feel verbs (30.4), Amuse verbs (31.1), Want verbs (32.1), etc. All of the verbs from these classes were paired with the subset of four directional particles, but only Peer verbs produced more or less positive results as they seemed to combine productively with the particles (although not without exceptions). Thus all four directional particles can occur with *gape*, *gawk*, *gaze*, *glance*, *glare*, *look*, *peep*, *peek*, *stare*, but we do not find valid combinations with *ogle*, *sniff*, *snoop* and *leer*. This again confirms the fact that the class of verbs of seeing should be treated only as semi-productive.

The directional particle *up* occurs productively with Levin's (1993: 145) Keep verbs (class 15.2) adding the meaning 'sustain in upward position or increase in quantity' to the verbs. Consider: *hoard up*, *keep up*, *leave up*, *store up* (**4 verbs of 4**).

Levin's classes provide a good starting point for obtaining productive verb particle combinations with particles having not only the directional sense but aspectual as well. In the previous sections we could already observe that *out*, *up* and *down* can be productive with many verbs which belong to certain systematic classes and the particle frequently adds the sense of completion and thoroughness to the verb. Our aim now is to check whether we can find similar classes of verbs in Levin which allow attachment of the aspectual particles.

Levin (1993: 124- 127) places many classes of verbs under the common name of 'wipe' verbs, for example, Wipe alternation verbs (class 2.3.3), Clear verbs (class 10.3), Wipe verbs/ manner (class 10.4.1) and Wipe verbs/instrument (10.4.2). The members of these classes are all very similar, moreover, there is a large overlap. Thus, we analyse the biggest class that contains all wipe verbs (class 2.3.3) and the class of Clear verbs. A closer look at the verbs allows us to observe that all of the verbs are closely related semantically. Most of these verbs can be found among our 'cleaning' verbs (cf. section 5.2.2.1, class (1) of the aspectual combinations), collected from dictionaries. They appeared to be productive with only aspectual *out*, which contributes the sense of completion to the verb. Thus, here we will check if we can use Levin's verbs to extend the coverage of the existing combinations. The test yielded positive results and we were able to obtain many more productive combinations with aspectual *out* from the Wipe alternation verb class:



*bail out, brush out, buff out, comb out, distill out, dust out, erase out, \*expunge out, file out, filter out, flush out, ?hoover out, hose out, iron out, leach out, lick out, mop out, pluck out, prune out, purge out, rinse out, rub out, \*sandpaper out, scour out, scrape out, scratch out, scrub out, ?shave out, shear out, shovel out, siphon out, smooth out, soak out, sponge out, squeeze out, strip out, suction out, swab out, sweep out, \*towel out, trim out, vacuum out, wash out, wear out, weed out, ?winnow out, wipe out, wring out. (42 verbs of 48 combine productively with out)*

The analysis has revealed that Levin's class of 'wipe' verbs with aspectual *out* is productive, the combinations which are unacceptable are marked with an asterisk, and those with marginal acceptability are marked with a question mark. In this case the combinations are subject to human judgements. Only a few verbs from this class appear to be productive with aspectual *up*: *dab up, polish up (off as well), rake up, suck up, whisk up (5 verbs of 48)*, the proportion of which is very small.

Levin's class of Clear verbs (class 10.3) is also completely productive with aspectual *out*. In this class we can find four verbs: *clean, clear, drain, empty*.

Aspectual *down* appears to be almost fully productive with Levin's Chase verbs (class 51.6) which adds the sense of completion and ending to the verb. Consider: *chase down, follow down, \*pursue down, \*shadow down, tail down, track down, trail down (5 verbs of 7)*.

Aspectual *up* seems to be the most productive particle as it occurs with the largest number of Levin's classes, although in many cases it is semi-productive. Thus, aspectual *up* occurs semi-productively with Levin's (1993: 166) Split verbs (class 23.2), e.g. *blow up, break up, cut up, hack up, rip up, split up, tear up*, but *\*hew up, \*pry up, \*tug up, \*yank up (7 of 20 verbs)* are odd most probably because the basic meaning of the verbs is not closely associated with splitting processes. The aspectual meaning of completion can also be observed with Levin's 'eating' verbs. Levin (1993: 213- 216) distinguishes Eat verbs (class 39.1), Chew verbs (class 39.2), Gobble verbs (class 39.3) and Devour verbs (class 39.4). Thus, aspectual *up* shows full productivity with the class of Eat verbs which has only two members: *drink up, eat up*; near-full productivity with Chew verbs: *chew up, chomp up, crunch up, \*gnaw up, lick up, munch up, nibble up, peck up, pick up, sip up, slurp up, suck up (11 verbs of 12)*; and Gobble verbs: *bolt up, gobble up, gulp up, guzzle up, \*quaff up, swallow up, \*swig up, wolf up (6 verbs of 8)*; and non-productivity with Devour verbs: *\*consume up, \*devour up, \*imbibe up, \*ingest up, swill up (only 1 verb of 5)*. Similarly, there seem to arise obvious cases of semi-productivity of the aspectual particle *up* with verbs denoting cooking processes which are found in Levin's

(1993:175, 243) Cook verbs (class 45.3) and Prepare verbs (class 26.3). Since almost every verb of cooking which is found in the class of Prepare verbs appears also in the extended class of Cook verbs, it seems plausible to analyse the verbs of this latter class alone. *Up* occurs productively with the following verbs: *bake up, blend up, boil up, brew up, braise up, brown up, cook up, crisp up, fry up, grill up, heat up, roast up, simmer up* (**13 verbs of 44**). Conversely, *\*charbroil up, \*charcoal-broil up, \*coddle up, \*deep-fry up, \*French fry up, \*hardboil up, \*microwave up, \*oven-fry up, \*overcook up, \*parboil up, \*plank up, \*poach up, \*softboil up, \*steam-bake up, \*stir-fry up* are apparently odd. It seems that there is a strong constraint in the above combinations: verbs in unacceptable combinations are polysyllabic. Again, it can be noted that the constraints may arise due to the blocking principles, phonological structure and the semantic features of the verbs.

Finally, aspectual *up* occurs productively with Levin's (1993: 207) Talk verbs (class 37.5) to which it contributes the sense 'increase in intensity of the action': *speak up, talk up* (in this class Levin lists only two verbs) (Note these verbs combine productively with the directional particle *out* as well, which adds the meaning of the direction of speaking).

From the analysis above, the following picture arises. We have used Levin's (1993) verbal classification to productively generate candidate verb particle combinations and subjected them to judgements of native speakers as a way of verifying the validity of the verb particle constructions and filtering out unacceptable cases. Levin's classes gave us a good opportunity to extend the number of verbs in many classes that have been established in the previous sections, yielding a clearer picture of the degree of productivity of certain classes of verb particle constructions. Although it is possible to continuously extend the number of classes using ever-growing sets of verbs, the number of verbal entries analysed provided us with satisfactory results in terms of productivity at this point. From Levin's classes, we have obtained two basic patterns:

1. Levin's classes of verbs that imply motion or location can form productive combinations with the directional particles *out, in, up* and *down*. The sense of direction contributed by the particles is often accompanied by the resultative sense as well, e.g. Roll verbs (51.3.1), Run verbs (51.3.2), Skate verbs (or verbs of vehicle) (51.4.1), Pedal verbs (51.4.2), Waltz verbs (51.5), Rush verbs (53.2), Slide verbs (11.2), Drive verbs (11.5). These are the most productive cases of the directional particles with the semantically related motion verbs. The directional meaning of the particles 'direction of action involving motion' is discernible with

the following of Levin's classes: Bring verbs (11.3), Carry verbs (11.4), Push/Pull verbs (12), Throw verbs (17.1), Pour verbs (19.5), Keep verbs (15.2).

2. Levin's classes of verbs that can form productive aspectual combinations with the particles giving the sense of completion and/ or increase/ improvement to the action denoted by the verb, e.g. Wipe verbs (2.3.3), Clear verbs (10.3), Chase verbs (51.6), Split verbs (23.2), Eat verbs (39.1), Chew verbs (39.2), Gobble verbs (29.3), Cook verbs (45.3), Prepare verbs (26.3), Talk verbs (37.5).

## 6. ASPECT, AKTIONSART, EVENT STRUCTURE AND PARTICLES

In this chapter we will take a closer look at the various ways in which the four particles *out*, *in*, *up* and *down*, proved productive in the previous chapter, can influence the aspectual properties of the verb to which they are added. We have already seen that in many cases the particles are productive not only in their concrete but in their aspectual meaning as well. But, as Brinton (1988: 163) notes, “the exact nature of the aspectual meaning is frequently unclear, though ‘perfective’ meaning is commonly cited”. However, according to Brinton (1988: 163), the aspectual meaning of particles can be also understood as an Aktionsart meaning, namely that of expressing the goal or endpoint of a situation. Given this confusion of notions, in the present investigation, after introducing and clarifying the concepts of aspect, Aktionsart and event structure, we will argue that the productive particles in English are primarily markers of “perfective” aspect and resultative Aktionsart. After a short description of the semantics of the aspectual particles, we will discuss the ways in which verbal particles may or may not alter the event-structural make-up of the event in English and Hungarian. Finally, we will establish Aktionsart classes in English and, following the Slavic tradition (cf. Agrell 1908, Isačenko 1962, Maslov 1963, Bondarko 1996), will argue that Aktionsart categories are expressed by means of derivational morphology, i.e. the Aktionsart category is always brought about by a morphologically complex verb. Armed with the precise definition of Aktionsart, we will carry out a contrastive Hungarian-English analysis of Aktionsarten and attempt to show that in Hungarian, a language with a rich morphology, the lexicalisation of Aktionsarten achieved by means of derivational morphology is much more explicit than in English, which has a poor inflectional morphology.

### 6.1 Defining Aspect and Aktionsart

The study of aspect and Aktionsart has a long history. Nearly two centuries ago, a general concept of aspect was distinguished from tense, and 75 years later this concept was subdivided into something like the narrow concept of aspect and the broader category of Aktionsart, often referred to as lexical aspect. This process happened as a result of the interactions between Slavic linguists (Agrell 1908, Isačenko 1962, Maslov 1963, Bondarko 1996) (dealing with morphologically rich languages) and Germanic linguists (Smith 1991,

Comrie 1976, Krifka 1989, Verkuyl 1993, Tenny 1994, among many others) (investigating morphologically impoverished languages). At times there was a strong interaction between the two traditions (the key concepts of aspect and Aktionsart emerged as a result of these interactions) but more recently the two traditions have tended to go their own way.

The term “aspect” corresponds to the Russian word “vid” (a view) introduced into Slavic grammar in the early nineteenth century (Gonda 1962: 9). As indicated by its etymology (from Latin *aspectus*, a noun derived from the verb *aspicere*, which is a contraction of *ad* + *specere*, i.e. ‘look at’), aspect relates to the way a speaker *views* a situation’s unfolding through time. Indeed, many scholars (e.g. Friedrich 1974: 2) defined aspect in this most general sense as “a way of conceiving the passage of time”. On the other hand, Germanic scholars generally follow Brugmann’s (1886) simple definition: “the manner and the way in which the action of the verb proceeds” (see Gonda 1962: 12-13).

The establishment of aspect in Germanic tradition is found in the work of Jacob Grimm.<sup>32</sup> Grimm was one of the grammarians who pioneered the transposition of the concept of aspect to Germanic languages. Interestingly, he did not think of (Germanic) aspect in the essentially semantic way that nowadays is common in the literature on formal linguistics. Instead, he looked at Germanic oppositions between simple and complex verbs, so his work has a rather Slavic character. Thus, for Grimm composites with *ver-*, *be-*, *hin-*, *durch-*, etc. (as in Slavic *po-*, *do-*, *na-*, etc.) represent perfectives, uncomposed verbs, on the contrary, represent imperfectives. Grimm’s ideas strongly influenced subsequent Germanic aspectology, and in particular the work of Streitberg and Brugmann.

Streitberg (1889) wished to establish a link between Germanic and Slavic languages. He became well-known in Germanic and Slavic aspectology for his famous contribution “Perfektive und imperfektive Aktionsart im Germanischen” (1889). In his study, he tried to show that the Slavic distinction between perfective and imperfective aspect was preserved in Gothic. He argues that the Gothic verbs compounded with prefixes, such as *du-*, *us-*, *at-*, etc., and especially the prefix *ga-*, are perfective counterparts of the corresponding simple verbs, which he analyses as imperfective. Streitberg (1889, mentioned in Verkuyl 1972: 4) proposes

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<sup>32</sup> Sine nomine: Aspect and Aktionsart: some History, p.38  
available at [www.lotpublications.nl/publish/articles/000622/bookpart.pdf](http://www.lotpublications.nl/publish/articles/000622/bookpart.pdf)

that the whole verbal system of Slavic is governed by the following three main semantic categories:

1. *Imperfective/durative/continuous* aspect that presents an action in its uninterrupted duration or continuity;
2. *Perfective/resultative* aspect which adds the moment of completion to the meaning of the verb; this category consists of two subcategories:  
*momentaneous-perfective* aspect, which stresses the moment of termination,  
and  
*durative-perfective* aspect that expresses completion together with the duration of action;
3. *Iterative* aspect expressing iteration.

Streitberg's study had a long-lasting effect on Germanic research on aspect. It had inspired scholars such as Poutsma (1926) and van Wijk (1928). For instance, Poutsma (1926: 285-90) proposed the following Streitberg-inspired classification of predication:

1. *momentaneous* predication;
2. *durative* predication, which falls into  
*indefinitely durative* predication,  
*ingressively durative* predication, and  
*terminatively durative* predication,
3. *iterative* predication.

Slavic linguists strongly objected to Streitberg's idea that the distinction between perfective and imperfective aspect was preserved in Gothic, and disliked his attempt to transpose the Slavic concept of aspect onto Germanic languages. For example, Trnka (1982), one of the representatives of the Prague Circle, writes:

It is hard for a Slavonic philologist to endorse the theory of the eminent German scholar. No period of transition in the system of the Germanic verbal system caused by the supposed loss of verbal aspects has been detected either by Streitberg himself, or by any of his followers, in the history of the Germanic languages, and in modern languages of the Germanic stock (even in English which has developed since the 15th and 16th

centuries some periphrastic forms comparable, from the semasiological point of view, with the Slavonic imperfective aspect). (Trnka, 1982: 205)

Trnka's work on aspect offers more than just criticism of Streitberg. He also proposes a way of relating Germanic languages to Slavic languages. He proposes that within the verbal systems of Czech and English, the word "aspect" is applied to roughly three different "semasiological series", of which two are represented in Germanic, and three are represented in Slavic. The two first series refer to distinctions that concern the internal structure of events (these distinctions can be expressed lexically, by prefixes, adverbs, prepositions, or they can be the effect of a specific contextual placing, typically supported by adverbs). The third series – that is, the grammaticalized imperfective vs. perfective opposition – is represented only in the Slavic languages: "the perfective verb denotes an action as completed fact, in opposition to the imperfective verb which expresses the action as a process".

Many more similar definitions started to appear in Slavic grammars, e.g. "aspect expresses the way in which a process takes place in time or is placed in time" (definition of Peškovskij; see Gonda 1962: 10). Jakobson (1971: 130-47), discussing the Russian verb, suggests that aspect "deals with temporal values inherent in the activity or state itself", whereas Friedrich (1974: 1), writing on aspect in Homeric Greek, suggests that aspect "signifies the relative duration or punctuality along a time line".

On the other hand, a different kind of definition is also quite common. Kruisinga (1931: 221) suggests that aspect "expresses whether the speaker looks upon an action in its entirety, or with special reference to some part (chiefly beginning or end)". Kruisinga's most important contribution to aspectual studies is his distinction between aspect and character, though he is not always consistent in maintaining it:

These groups of verbs [e.g. *fly/flutter*, *crack/crackle*] show a difference in the *character* of the actions expressed. [This comes very close to what is meant by *Aktionsart* in the present study]. The distinction does not depend upon the mental attitude of the individual observer, but upon a difference between the actions that can be thought of as independent of the observer; in popular terms: the difference of *character* is *objective*, whereas the difference of *aspect* is *subjective*. (Kruisinga, 1931: 230-1)

Another study of the aspectual system of English is that of Deutschbein (1939). Like Kruisinga, Deutschbein equates aspect with subjectivity, and *Aktionsart* with objectivity. For

Deutschbein, the aspects “present a view of a process in perspective... from the standpoint of the speaker or narrator” (Deutschbein 1939:148). Three perspectives of an entire process are possible: the prospective (*be going to* or *be about to*), the introspective or imperfective (expressed by the progressive form), and the retrospective or perfective (expressed by the perfect form). Such definitions may also be found in Slavic grammars, e.g. “aspects express the moments or stages of the process” (Rasmussen’s definition; see Gonda 1962: 11).

For linguists raised in the grammatical tradition (e.g. Comrie 1976), aspect is an inflectional category that is marked on the verb and that is used to take a particular view on the temporal development of a situation. Applied to English, aspect then reduces to the distinction between simple and progressive verb forms. Simple verb forms express “perfective” aspect, while progressive verb forms express “imperfective” aspect, which is sometimes also called “progressive”, “durative” or “continuous” aspect. According to Comrie (1976: 3) “aspects are different ways of viewing the internal temporal constituency of a situation”. Comrie defines perfectivity as an aspectual category which “indicates the view of a situation as a single whole, without distinction of the various separate phases that make up the situation” (Comrie 1976: 16), and imperfectivity as an aspectual category which “looks at the situation from inside, and as such is crucially concerned with the internal structure of the situation” (Comrie 1976: 4). Aspect thus, as concluded by Brinton (1988: 3), relates to the fact that any situation whether static or dynamic, telic or atelic, can be described either as a completed whole or as something “ongoing, in progress” or simply “existent” for a given period of time.

Under the influence of the definitions just described, aspect started to be theorised about in binary terms. Around the beginning of the twentieth century, there gradually arose the concept of an aspectual *pair*: a pair consisting of an imperfective and perfective *form* of one and the same verb. This binary view on aspect was for the first time explicitly expressed by Agrell (1908), and became firmly established after Jakobson (1971b).

Beyond the fully grammatical markers of aspect are several partially grammaticalized markers which have not been a central part of aspect studies, partly because they are not considered to form a coherent system of aspect marking (Brinton 1988). These include verb-particle combinations and aspectual quasi-auxiliaries (or “aspectualizers”). Brinton (1988: 4) notices that phrasal verbs seem to be a productive, though not consistent, means in Modern English of expressing aspectual distinctions. The addition of a particle to a simple verb is thought to lend perfective meaning (e.g. *drink up*, *calm down*, *wait out*, *die off*, *pass away*, *carry through*, *bring about*, *put over*), ingressive meaning (*hurry up*, *lie down*, *doze off*, *set*



*out, pitch in, go away*), or continuative/iterative meaning (*hammer away, drive on*). Aspectualizers form a somewhat better developed system for expressing aspectual distinctions, with ingressive forms such as *begin, start, or come* to do something, egressive ones such as *finish, quit, stop, or cease* doing something, and continuative/iterative ones such as *keep on, go on, or continue* doing something. According to Brinton (1988: 5), the aspectualizers have received little attention within the context of aspectual studies because of their lack of full auxiliary status.<sup>33</sup> In the subsequent sections we will argue that the aspectual information conveyed by certain verb-particle combinations is as important as that conveyed by their related simplex verbs.

For most linguists dealing with the Anglo-Saxon aspectual literature, aspect is a much broader category, not just dealing with aspectual information marked by affixes on the verb but also including “lexical aspect”, as opposed to “grammatical aspect” (or “viewpoint aspect”, Smith 1997: 61-96). Lexical aspect corresponds to what is referred to by the German term “Aktionsart” (or by its plural form “Aktionsarten”) which literally means ‘kind of action’. This term was coined in 1885 by Karl Brugmann in his *Comparative Grammar of the Indo-European languages*, where he distinguished an imperfective from a perfective from a perfect Aktionsart. He saw this term in close contrast with tense. Brugmann (1885, cited in Kortmann 1991: 11) did not separate Aktionsart from aspect by recognizing the lexical nature of the former. Rather, Brugmann used the name “Aktionsart” for Germanic equivalents of the Slavic semantic distinctions described as “vidy”. Thus Brugmann (1885, cited in Kortmann 1991: 12) distinguished two categories: the category of tense and the broad category of vidy/Aktionsart. The three-way distinction between tense, aspect and Aktionsart that is used today comes from the work of Sigurd Agrell, who used the notion of “Aktionsart” in his study on Polish verbs as a notion *additional* to the notion of aspect. Agrell (1908, cited in Kortmann 1991: 11 and Kiefer 2006: 137) was the first to explicitly distinguish aspect and Aktionsart in Slavic and according to him, the major difference between these concepts is that changing aspect does not affect the lexical meaning of the verb, whereas deriving an Aktionsart variant of a verb does result in a “modification” (though not a complete change) of the verb’s lexical semantics. Thus we can see that Aktionsart has nothing to do with grammar, but relates solely to the semantics of verbs and predicates, more exactly to those semantic properties having to

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<sup>33</sup> Consider, however, Freed (1979), who provides a detailed characterization of the various aspectual verbs and their complement structures; her analysis allows to capture significant semantic information about the various groups of aspectualizers.

do with time. In this dissertation we argue that the intrinsic temporal make-up of verbs is signalled by special particles (e.g. *up, down, out*) and the Aktionsart of verbs is compositional.

From the above we see that aspect and Aktionsart are categories to be kept strictly separate. Throughout the long study of the history of aspect, strong arguments have been made for such a distinction (e.g. Goedsche 1940: 189-96; most recently Smith 1983, 1997). The differentiation of aspect and Aktionsart has been approached from a number of different directions: in terms of the contrasts ‘grammatical’ vs. ‘lexical’ aspect, ‘subjective’ vs. ‘objective’ aspect, aspect vs. ‘character’ (Kruisinga 1931: 230- 37), and ‘viewpoint’ vs. ‘situation’ aspect (Smith 1991: 17, 61). As Brinton (1988: 3) summarises aspect is grammatical because it is expressed by verbal inflectional morphology and periphrases, Aktionsart by the lexical meaning of verbs and verbal derivational morphology. Aspect is subjective because the speaker chooses a particular viewpoint, whereas Aktionsart, since it concerns the given nature of the event and not the perspective of the speaker, is objective. Aktionsart is the character of the situation named by a verb. Let’s put all this in a table:

**Table 10. Aspect and Aktionsart**

<b>Aspect</b>	<b>Aktionsart</b>
grammar	lexicon
completion vs. incompletion	manner of action (semantic verb/ predicate classes)
syntactically or inflectionally signalled	lexically (specific particles) or derivationally signalled
subjective	objective

Presented in this way, the distinctions may seem clear-cut – but the fact that their correctness has been questioned multiple times throughout the twentieth century suggests that they are in fact far from unproblematic. Indeed, objections have been raised against almost all of the oppositions in terms of which the ‘aspect/Aktionsart’ distinction has been explained. Let us briefly consider at least one of them – the ‘grammatical’ vs. ‘lexical’ distinction, which has played an important role in trying to determine the borderline between aspect and Aktionsart.

We can find a view in the literature<sup>34</sup> that this distinction disappears if one treats aspectual forms as independent verbs. If one starts to think about something as a *grammatical* category, an interesting question arises: do the formal means of aspectual modification – and in particular, the empty prefixes – belong to *inflectional* or *derivational* morphology? This question is hard to answer for a category of Aktionsart. It is not obvious how one can treat Aktionsart as a purely lexical category if at the same time one maintains that it is expressed by explicit formal means that give a more detailed description of how the action expressed by the base verb takes place. And, perhaps, the question cannot be answered definitely, because the distinction between inflection and derivation may be a gradual distinction in the amount of semantic content of a morpheme, as argued by Bybee (1985).<sup>35</sup> For the purpose of the present investigation these distinctions are acceptable and we will not continue the discussion of objections raised against other oppositions in terms of which the aspect/Aktionsart distinction has been explained.

To summarize, our aim has been to argue that the distinction between aspect and aktionsart is crucial, but it is important to highlight that the aspectual interpretation of the verb depends on an interaction between these two categories.

## 6.2. The notion of Event Structure

Research into aspect has led to a number of classifications of situations into different “aspectual classes” which became lately established as “event classes” or “event types”. The term “event types” in the present work is used in the same sense as “situation types”.<sup>36</sup> Event structure is understood as the set of (sub) events together with the temporal relationship holding between them (Kiefer 2009: 189). An essential part of event structure can be determined by means of temporal adverbials. “Event” in “event structure” is used in a broad sense, covering all sorts of situations. This contrasts with some other definitions in the

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<sup>34</sup> Sine nomine: Aspect and Aktionsart: some History, p.58  
available at [www.lotpublications.nl/publish/articles/000622/bookpart.pdf](http://www.lotpublications.nl/publish/articles/000622/bookpart.pdf)

<sup>35</sup> In Bybee’s (1985: 12) view, inflection, derivation and the lexicon seem to merely represent central points on a more general underlying continuum, ranging from grammar to lexicon – syntactic > free grammatical > inflectional > derivational > lexical expression – representing an increasing degree of semantic and formal fusion.

<sup>36</sup> Cf. Lyons (1977) and Mourelatos (1978).

literature, where “event” may be restricted to denote only non-states (Tenny 1994: 178- 79, also Pustejovsky 1991) or may even be restricted further to denote non-states that have an inherent endpoint, or alternatively, situations that are at once dynamic, non-agentive and non-evolving (mentioned by Capelle 2005: 345). Thus the term “event” covers the situation types of accomplishments, achievements and activities with states opposed to these situation types. Technically, the term “event structure” can be replaced by “situation structure” but since only the former term has received the widespread use in the literature, we will reserve this term for further discussions.

The focus in this chapter is on how a particle may change the event-structural properties of a verb. What we are particularly interested in is whether the particle may alter the telicity of the verb predicate. According to Capelle (2005: 345), a telic VP refers to a telic event, i.e. an event that tends towards an inherent or intended endpoint.<sup>37</sup> An atelic VP, then refers to an event that can only be stopped arbitrarily. Quite often the presence of an object may contribute to making the predicate telic by indicating the endpoint of the activity (e.g. *write- write a letter*). The very same role can be played by particles (*write* [-telic] – *write down* [+ telic], *write up* [+ telic]).<sup>38</sup>

(Actually, the locative particles that indicate movement oriented towards a specific goal may come to imply attainment of the goal (telic events), whereas particles that express stasis, location or a movement without a specific endpoint contribute to indicating atelic events (Iacobini and Massini 2007: 170)). To confirm the particles’ telicizing ability, we should first concentrate on the description of the event classes in English.

Perhaps the most recognised representation of the event types in English is that of Vendler (1967: 97- 121)). Vendler classified four event types: states (*own, know, hate*), activities (*walk, swim, fly*), accomplishments (*build, grow up, recover*) and achievements (*reach, find, win*). There is one more class which was discovered later and added to Vendler’s event classes – semelfactive type of verbs (*knock, hit*), which involves a single event or a series of events (Smith 1997). States are opposed to other classes in that states are events in which there is no perceptible change. Other events, however, do denote that something

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<sup>37</sup> In fact, this is an old distinction, possibly going back to Aristotle’s distinction between *kinéseis* ‘movements’ and *enérgeiai* ‘activities’ (cf. Kenny 1963:173).

<sup>38</sup> “The class of verb particles have the semantic property of imposing delimitedness on the event described by a verb phrase or sentence” (Tenny 1994: 148).

changes. There are three characteristics to classify events (cf. Brinton 1988: 24-25, also Smith 1997):

1. A **bounded** or **telic** event has a natural end-point or bound at which the event is finished. Unbounded or atelic events lack a natural end point.
2. A **durative** event unfolds over a measurable time span as opposed to nondurative events which occur in an instant.
3. A **static** or **homogeneous event** has no internal change. **Dynamic** or **heterogeneous** events mark some type of change in their participants.

These dimensions can be used to classify events into states, activities, accomplishments, achievements and semelfactives. In the following, we will shortly describe each class to be able to differentiate types of verb that can (or cannot) interact with a specific particle.

As Brinton (1988: 28) states, the clearest way to define Vendler's event classes is by means of a number of semantic features, namely [ $\pm$  Stative,  $\pm$  Durative,  $\pm$  Telic and  $\pm$  Voluntary]. The table below summarizes this information.

Table 11. **The semantic features of Vendler's verb classes**

<p><b>state</b> (e.g. <i>be tall</i>, <i>resemble</i>, <i>love</i>, <i>live</i>, <i>know</i>, <i>contain</i>)</p> <p>+ stative + durative – telic – voluntary</p>	<p><b>activity</b> (e.g. <i>run</i>, <i>write</i>, <i>watch</i>, <i>snow</i>, <i>seek</i>, <i>eat</i>, <i>drink</i>)</p> <p>– stative + durative – telic <math>\pm</math> voluntary</p>
<p><b>accomplishment</b> (e.g. <i>grow up</i>, <i>cover</i>, <i>walk a mile</i>, <i>bake a cake</i>, <i>destroy</i>, <i>create</i>)</p> <p>– stative + durative + telic <math>\pm</math> voluntary</p>	<p><b>achievement</b> (e.g. <i>leave</i>, <i>recognize</i>, <i>win the race</i>, <i>acquire</i>)</p> <p>– stative – durative + telic <math>\pm</math> voluntary</p>

Thus states are events that endure for a definite period of time with no necessary endpoint; they cannot be brought about voluntarily, they do not involve change or development.

Activities are durative events which go on for an indefinite period of time with no inherent goal. They involve some change and they may be voluntary (e.g. a person *runs*) or non-voluntary (a river *flows*). Accomplishments are durative events which go on in time but have a necessary goal and they are also voluntary (e.g. *deliver a sermon*) or non-voluntary (e.g. *recover from an illness*). Achievements are punctual events which take place at a specific point in time. Achievements are generally non-voluntary (e.g. *be born*), but they may also be voluntary (e.g. *get married*).

In this study we claim that the weakness of Vendler's four-way typology of verbs is that with basically three main parameters (stative, durative and telic) the same verb may belong to more than one category and this may make the lexicon unnecessarily large. Furthermore, as Mourelatos (1978: 419) points out, Vendler's verb-based approach is also inadequate as an account of aspectual meanings arising from arguments and non-arguments (e.g. *read* vs. *read a book*). Yet, Vendler's verb typology, though having weaknesses, has been accepted as a good starting point in the study of aspect by many authors.

One major criticism that can be brought against Vendler's categories is the failure to differentiate such punctual verbs as, for example, *arrive* and *hit* (cf. Smith 1997: 29). While the former verb belongs to Vendler's category of **achievement** verbs, i.e. verbs that describe punctual events, but the moment described involves the transition to the result state, the nature of the latter is not exactly specified. In this latter case we have a punctual verb that can name a event of a single hit or a series of hits. The class of verbs of this type is called **semelfactive** (cf. Smith 1997: 29, Olsen 1997: 46, also Engelberg 2000). The difference between these two classes is evident in the progressive as in the following sentences:

- (1) a. *Jane is arriving.* (achievement)
- b. *Jane is hitting the table.* (semelfactive)

The two sentences differ in their entailments; in the first sentence it is not true that "Jane has arrived", while in the second sentence it is true that "Jane has hit the table". Moreover, the progressive has the effect of giving duration to the event in the first sentence culminating in the action itself, whereas the interpretation of the second sentence is iterative. In this respect, as Olsen (1997: 48) notes, semelfactives do not behave like any of Vendler's categories, thus the existence of a separate class – the class of punctual semelfactive verbs seems to be inevitable.

The verbs of this class (e.g. *knock, hit, rap*) describe events that are punctual– they take no more than a moment in time, but as with the events described by durative verbs, there is no inherent endpoint specified by the events. Using Vendler’s (1976) features, this class can be characterized as [– stative,– durative,– telic]. Semelfactives can be both voluntary (e.g. *Chris knocked*) and involuntary (e.g. *the window shattered*).

The most common distinction between states and activities (or between states on the one hand and activities and accomplishments on the other) is cited by Lakoff (1965), known as the distinction between **statives** vs. **non-statives** (cf. Dowty 1979, Binnick 1991). Dowty (1979: 55) gives a list of tests that can be used successfully to differentiate the two categories. They are as follows:

1. Only non-statives occur in the progressive:

- (2) a. \**John is knowing the answer.*
- b. *John is running.*
- c. *John is building the house.*

Binnick (1991: 173), however, mentions that a progressive use of statives is possible, especially with a series of occurrences:

- (3) a. *John is knowing all the answers to test questions more and more often.*
- b. *Sue is believing in God ever more strongly.*

2. Only non-statives occur as complements of *force* and *persuade*:

- (4) a. \**John forced Harry to know the answer.*
- b. *John persuaded Harry to run.*
- c. *John forced Harry to build a house.*

3. Only non-statives occur as imperatives:

- (5) a. \**Know the answer!*
- b. *Run!*
- c. *Build a house!*

4. Only non-statives co-occur with the adverbs *deliberately, carefully*:

- (6) a. \**John deliberately knew the answer.*
- b. *John ran carefully.*
- c. *John carefully built a house.*

Binnick (1991: 174) notices that the above facts follow from the non-volitional nature of states, but there are some volitional uses of stative verbs which do act as complements of these verbs:

- (7) a. *John forced Sue to be as dumb as Max thought she was.*

b. *Know the answer to every question – just read my book.*

5. Only non-statives appear in Pseudo-cleft constructions:

(8) a. \**What John did was know the answer.*

b. *What John did was run.*

c. *What John did was build a house.*

Binnick (1991:173) also emphasizes that when an activity or accomplishment occurs in the simple present tense (or any non-progressive tense), it has a frequentative (or habitual) interpretation in normal contexts (while in null context a stative is a true present):

(9) a. *John knows the answer.* (right now)

b. *John runs.* (habitual)

c. *John recites a poem.* (habitual)

When verbs describe events that take time but have no inherent temporal endpoint built into them – they are **activities**. These events can go on indefinitely. Consider the following sentences:

(10) a. *Henry likes to paint.*

b. *Susan wiped the counter.*

c. *Jane poured the milk.*

There is no inherent temporal endpoint denoted by verbs in these sentences. *Painting*, *wiping* and *pouring* are activity verbs which are non-telic.

Temporal adverbials have been widely used to identify the event type of predicates since Vendler (1976). Thus **activities** and **accomplishments** have also been distinguished by the use of time adverbials they take and by the entailments they have when various time adverbial phrases are present (Dowty 1979: 56).

1. Whereas accomplishment verbs take adverbial prepositional phrases with *in* and marginally adverbials with *for*, activity verbs allow only the *for*-phrases. But since, as Dowty (1979: 61) mentions, *for*-phrases may be restricted to activities exclusively, the marginal occurrences of *for*-phrases with accomplishments are in fact being read as activities. Fillmore (1971, cited in Dowty (1979: 61)) points out that the cases in (11a) and (11b) belong to those few examples in which verb phrases can be read ambiguously as an activity or an accomplishment.<sup>39</sup> Dowty (1979: 61) claims that the sentence (12b) can also be grammatical in special contexts.

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<sup>39</sup> Fillmore (1971, cited in Dowty (1979: 61)) supports his view with the following examples: *He read a book for/ in an hour* or *She combed her hair for /in five minutes*.



(11) a. *John painted a picture for an hour.*

b. *John painted a picture in an hour.*

(12) a. *John walked for an hour.*

b. (\*)*John walked in an hour.*

2. Semantically related to the *for-an-hour* and *in-an-hour* sentences above are the following:

(13) a. *John spent an hour painting a picture.*

b. *It took John an hour to paint a picture.*

(14) a. *John spent an hour walking.*

b. (\*)*It took John an hour to walk.*

Dowty (1979: 56) notes that though (12b) and (14b) have acceptable readings, *an hour* in these readings does not describe the duration of John's action as it does in (11b) and (13b), but rather seems to give the time that elapsed before John actually began to walk.

3. The entailments of activity verbs with *for*-phrases differ from those of accomplishment verbs under the same conditions (Dowty 1979: 57). If John walked for an hour, then, at any time during that hour it was true that John walked. But if John painted a picture for an hour, then it is not the case that he painted a picture at any time during that hour.

4. As Kenny (1963: 175) noted, entailments from the progressive to the non-progressive tenses also distinguish activities from accomplishments:

If  $\theta$  is an activity verb, then *x is (now)  $\theta$ ing* entails that *x has  $\theta$ ed*.

If  $\theta$  is an accomplishment verb, then *x is (now)  $\theta$ ing* entails that *x has not (yet)  $\theta$ ed*.

Thus, *John is painting* entails that *John has painted*. But *John is painting a picture* entails that *John has not yet painted a picture*. As Binnick (1991: 176) notes, this test has to be used with caution. It can be true that John is now painting a picture but also that he has already painted a picture if John is painting (some) pictures. When he is engaged in painting the second picture, it would be false to say that he has not yet painted a picture: rather he has not yet painted *this* (or *the*) picture. But the intent of Kenny's (1963) test is clear: we must give a "wide scope" reading to any quantifier occurring within  $\theta$  to apply the test appropriately.

5. A distinction in entailment is also obvious if the two kinds of verbs appear as the complement of *stop* (Dowty 1979: 57):

(15) a. *John stopped painting the picture.*

b. *John stopped walking.*

From (15b) we can conclude that John *did walk*, whereas from (15a) we cannot conclude straightforwardly that John *did paint* a picture, but only that he *was painting* a picture (which he may or may not have finished).

6. Only accomplishment verbs can normally occur as the complement of *finish* (Dowty 1979: 57):

- (16) a. *John finished painting a picture.*  
b. \**John finished walking.*

7. The adverb *almost* has different effects on activities and accomplishments (Dowty 1979: 58):

- (17) a. *John almost painted the picture.*  
b. *John almost walked.*

(17b) implies that John *did not*, in fact, walk, but (17a) gives two readings: (a) John had the intention of painting a picture but changed his mind and did nothing at all; (b) John did begin work on the picture and he almost finished it. This second reading is possible if the verb is not an activity verb.

**Achievement** verbs can be distinguished by the following tests (cf. Dowty 1979: 58):

1. Although accomplishments, as Dowty (1979: 58) notes, allow *in*-phrase time adverbials and marginally *for*-phrase adverbials, achievements are generally strange with a *for*- phrase.

- (18) a. *John noticed the painting in a few minutes.*  
b. ??*John noticed the painting for a few minutes.*

2. The same goes for the *spend-an-hour/ take-an-hour* distinction:

- (19) a. *It took John a few minutes to notice the painting.*  
b. ??*John spent a few minutes noticing the painting.*

3. Achievements like *notice a picture* do not have an entailment that accomplishments like *paint a picture* have. *John painted a picture in an hour* entails *John was painting a picture* during that hour. But *John noticed a picture in a few minutes* does not entail *John was noticing a picture* during those minutes.

4. Unlike accomplishment verbs, achievements are generally unacceptable as complements of *finish*:

- (20) \**John finished noticing the painting.*

5. Achievements are unacceptable as complements of *stop* either (except in a habitual reading):

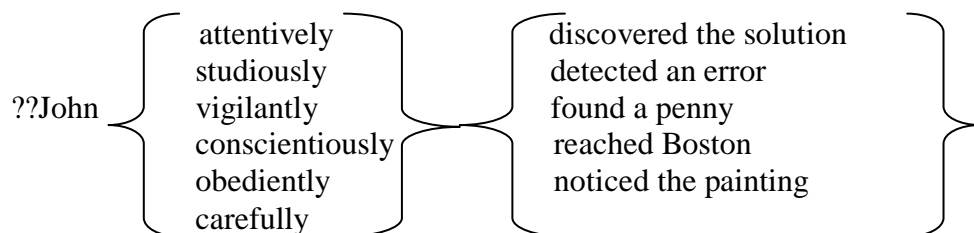
- (21) \**John stopped noticing the painting.*

6. *Almost* does not produce the ambiguity with achievements that it does with accomplishments.

- (22) *John almost noticed the painting.*

The sentence entails that John *did not* notice the painting.

7. As Ryle (1949) observes (mentioned by Dowty 1979: 59), there is a class of adverbs which are semantically anomalous with achievement verbs:



Since the adverbs *deliberately*, *carefully* in the stativity test are a subset of these adverbs, this test distinguishes states as well as achievements from the other categories. The criteria that are used to distinguish subsets of the five categories are summarized in the following table (the summary table of the four categories is adopted from Brinton (1988: 30), supplemented with the class of semelfactive verbs by the author of this dissertation).

Table 12. The syntactic behaviour of verb classes

Criterion	States	Activities	Accomplishments	Achievements	Semelfactives
1. meets non-stative tests	no	yes	yes	?	yes
2. has habitual interpretation in simple present tense	no	yes	yes	yes	yes
3. $\theta$ for an hour, spend an hour $\theta$ ing	OK	OK	OK	bad	bad
4. $\theta$ in an hour, take an hour to $\theta$	bad	bad	OK	OK	bad
5. $\theta$ for an hour entails $\theta$ at all times in the hour	yes	yes	no	d.n.a.	d.n.a.
6. x is $\theta$ ing entails x has $\theta$ ed	d.n.a.	yes	no	d.n.a.	Yes (iterative reading) bad
7. complement of stop	OK	OK	OK	bad	
8. complement of finish	bad	bad	OK	bad	bad
9. ambiguity with almost	no	no	yes	no	no
10. x $\theta$ ed in an hour entails x was $\theta$ ing during that hour	d.n.a.	d.n.a.	yes	no	d.n.a.
11. occurs with studiously, attentively, carefully, etc.	bad	OK	OK	bad	bad

OK= the sentence is grammatical, semantically normal.

bad= the sentence is ungrammatical, semantically anomalous.

d. n. a.= the test does not apply to verbs of this class.

Finally, it is important to take into account that verbs can shift from one class to another. Many verbs shift from one class to another depending on their transitivity status. For example, if an activity verb takes a direct object and a goal is implied, the verb becomes an accomplishment. Consider the following sentences:

(23) *John painted all day.* (activity)

(24) *John painted the house all day.* (activity, no goal implied)

(25) *John painted the house in an hour.* (accomplishment, *in an hour* implies a goal)

(26) *John finished painting the house.* (accomplishment, *finish* implies a goal)

(27) *John painted the house today.* (accomplishment if completion is implied)

If completion is not implied, then it is an activity.

The following table summarizes the effect of NP arguments on different event classes (adopted from Brinton 1988: 50).

**Table 13. The effect of NP arguments on event classes**

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1.	<i>activity</i> (or <i>accomplishment</i> ) verb + singular or specified plural count argument → <i>accomplishment</i>	
	<i>She sang (a /the) song.</i>	<i>The child ate up the pieces of candy.</i>
	<i>She sang two songs.</i>	<i>The child ate up the two pieces of candy.</i>
2.	<i>activity</i> (or <i>accomplishment</i> ) verb + mass or unspecified plural argument → <i>activity</i>	
	<i>She sang songs.</i>	<i>The child ate up pieces of candy.</i>
	<i>She sang folk music.</i>	<i>The child ate up a lot of candy.</i>
3.	<i>achievement verb</i> + singular count argument → <i>achievement</i>	
	<i>He noticed an error in the paper.</i>	
	<i>The runner crossed the finish line.</i>	
4.	<i>achievement verb</i> + specified plural argument → <i>accomplishment</i>	
	<i>He noticed six errors in the paper.</i>	
	<i>The first three runners crossed the finish line.</i>	
5.	<i>achievement verb</i> + unspecified plural argument → <i>activity</i>	
	<i>He noticed errors in the paper.</i>	
	<i>Runners crossed the finish line.</i>	
6.	<i>state verb</i> + singular or plural count or mass argument → <i>state</i>	
	<i>Mary owns (a car/ two cars/ cars).</i>	
	<i>Mary has money.</i>	
	<i>They have money.</i>	

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Brinton (1988) notes that in the cases above only the object seems to be aspectually significant. A specified or unspecified plural subject indicates multiple situations but does not affect the nature of the situation portrayed. We disagree with Brinton in that only the

object of the sentence may change the situation. We claim that the subject may do the same work as well. Consider the sentences: *The first three runners crossed the finish line* vs. *Runners crossed the finish line*. In the first sentence, the specified plural argument is used in an accomplishment sentence. However, it is the unspecified plural argument in the latter sentence that changes an accomplishment event into an activity.

Above, we have shown a number of tests used to distinguish various situation or event types which exist in English. Following Binnick (1991: 178), who raises the question why these various tests work, we claim that the tests above reflect deep relationships, i.e. the occurrence restrictions of a certain event type depend not only on the meanings of the individual verbs but rather on the meanings of whole verb phrases and in many cases whole sentences and those of the associated adverbials. The knowledge of the essential properties underlying the categories is important to be able to answer why the various tests work.

With regards to the opposition of telicity /atelicity, the [+ telic] feature is not always a part of the lexical meaning of the verb, but is introduced at the level of the phrase. Having now the detailed description of the event types of verbs, in the following sections we will examine some examples which show the effect of the particles on the events expressed by the VP.

### 6.3 A classic example of particles as /+ telic/ markers

Bolinger (1971: 85-7) noted that any phrasal verb particle, in its basic meaning, must contain two features: motion-through-location and terminus or result. Due to this provision some particles are constrained in their compatibility with certain verbs that meet these two requirements. For instance, while activity verbs such as *go*, *build*, *eat*, that imply change of state or motion, can combine freely with the particles, particle verbs are not found with stative verbs such as *know*, *hope*, *resemble*, which are not compatible with the notion of change.

The meaning that is often shared by several English particles is that of completion.<sup>40</sup> Transparent as well as non-transparent particles often express perfective aspect. They denote

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<sup>40</sup> Such considerations are held among others, by Déhe (2002: 346), who says that “ the particles in aspectual PV’s can mark completeness, such as *up* in *drink/eat up the milk/cake ...*”, Quirk et al. (1985: 1162-3), who note that “ it is the particle which establishes a family resemblance in the following groups... ‘completion’ *drink up*,

an endpoint or change of state of the activity or process expressed by the verb. The following classic example to show this fact is cited by Capelle (2005: 346), although the impact that the particle can have on the aspectual make-up of an event has been long recognised by other scholars (Quirk et al. 1985: 1162; Sawin 1999: 4; Dehé 2002: 7, among others). The following pair of sentences emphasizes the difference between *drink* and *drink up* (the ‘!’ sign indicates semantic unacceptability):

- (28) a. *John drank the beer, but he did not finish drinking it.*  
 b. *!John drank up the beer, but he did not finish drinking it.*

In the first example, John’s drinking the beer is not necessarily directed to the exhaustion of the liquid referred to by “the beer”. The sentence *John drank the beer* can refer to an event in which John had been offered a drink and having taken one or a couple of sips of it, he did not intend to finish the drink. In fact, Capelle (2005: 346) equates this sentence with *John didn’t leave the beer untouched*.<sup>41</sup> By contrast, it is not possible to report the event just

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*break up, finish up, use up*” and Lindner (1983: 169ff.), who also remarks that the particle serves to “profile” the goal.

<sup>41</sup> However, the standard interpretation of the sentence *John drank the beer* is that the event has been terminated (Smith 1997). Smith gives a similar sentence, e.g. *\*Mrs. Ramsey wrote a letter, but she didn’t finish writing it*, saying that the conjunction is contradictory and shows that the implicature of completion cannot be cancelled, that is in *Mrs. Ramsey wrote a letter*, there is an implication that she completed writing a letter (Smith 1997: 68). The conjunction test shows that the implicature is conventional rather than conversational. Conventional implicatures are conveyed by the meaning of linguistic forms. The closed reading of the sentence is based on the meaning of a simple aspect, i.e. perfective viewpoint which imposes an implicit bound. In the sentence above, *write a letter* is an accomplishment phrase and accomplishment sentences in English semantically convey completion. In this paper, we can agree with Capelle (2005) that the implication of completion in the sentence *John drank the beer* can be cancelled, but a suitable context is needed (as was mentioned above with Fillmore’s (1971) *He read a book for an hour/in an hour*). Most often this is typical of conversational language. (Turning back to Smith’s example, the sentence is possible if the second conjunct is used in the present perfect as in *Mrs. Ramsey wrote a letter, but she hasn’t finished writing it* implying a process which hasn’t finished. Such an explanation is based on native speakers’ judgements). Capelle gives the following authentic example to prove that *drink a beer* is an activity (Capelle 2005: 346), e.g. *I believe it was the milk because both of them drank it but didn’t finish it because they didn’t like it*. Consider also Capelle’s (2005: 347) another example: *One evening Ringo smoked a cigar, but Paul started coughing and made him put it out!*

On the whole, we agree with Smith (1997), who claims that in the vast majority of cases accomplishment phrases cannot be cancelled and they mostly convey completion. Still depending on the context (as Capelle shows), or on the object of the verb and the verbal predicate and even the whole sentence, telicity is an implication that can be cancelled occasionally. Native speakers argue that most often it is the case with the so-called consumption verbs, which when used with the specified objects in some contexts allow an activity reading. However, in *John drank up the beer*, the telic implication can never be cancelled, particle adds focus on result.

supplemented by *up* as *John drank up the beer*, because this sentence entails that John actually finished his drink. Consequently, a denial of this entailment in (28b) leads to semantic inconsistency. Capelle (2005: 347) emphasises that the particle *up* in *drink up* is used without reference to upward direction– as it happens, when you drink your beer *up*, you literally *down* it: the beer goes essentially down your throat and the level of beer in your glass also goes down, all the way to the bottom of the glass. Instead, the particle *up* in *drink up* means ‘completely’, ‘until there is nothing left’. The addition of the particle *up* not only contributes perfectivity in the sense that the beer has been finished completely, it also indicates a change of state. An activity verb *drink* with the features (+ dynamic, +durative, -telic) is converted into an accomplishment verb *drink up* with the features (+ dynamic, +durative, +telic). The telicity of particles can also be tested thanks to Verkuyl’s (1972, 1993) work on telic aspect. A well-known test is the ‘*for X time*’ / ‘*in X time*’ test (Verkuyl 1972, 1993).

(29) *John drank up the beer \*for two minutes/ in two minutes.*

The adverbial phrase ‘*for X time*’ expresses a duration, whereas ‘*in X time*’ indicates that the action or event has an endpoint. Thus, the fact that the sentence in (29) allows modification by ‘*in X time*’ indicates that it has telic aspect. The telic aspect is expressed by the particle, since the verb *to drink* on its own is not telic. Consider:

- (30) a. *\*John drank in one hour.*  
 b. *John drank the beer for an hour/ in one hour.*

The adverbial phrases ‘*for X time*’ and ‘*in X time*’ in (30b) signal that the sentence may have both telic and atelic reading as well.

#### 6.4 Directional particles and their aspectual impact on verbs

One and the same particle can be used either as a directional particle or as an aspectual one. The following two examples from Capelle (2005: 348) testify to this fact:

- (31) a. *I ran out and slammed the door.*  
 b. *The soil dried out and got as hard as brick.*

In (31a), the referent of the subject follows a path from within a room or building to outside that room or building. In (31b), the referent of the subject does not follow such a trajectory in physical space. Capelle (2005: 348) notes that since the particle does not denote a path in the second sentence, it should contribute a more abstract sense. In particular, the particle *out* in the second sentence conveys the sense of “completion” (or “completeness”, “thoroughness”, “finality”, “telicity”, “perfectivity”, etc.). The exact nature of its aspectual effect does not matter for now, but the fact that there is an aspectual effect cannot be denied.

Given that non-directional particles typically express some aspectual meaning, it is tempting to conclude, erroneously, that particles do not make any aspectual contribution when they have their literal, directional meaning. However, it appears that the difference between *I ran* and *I ran out* does not lie only in the presence or absence of an expression of direction, there is also an aspectual difference. The addition of *out* renders the event of running, which is a durative event, into a non-durative event (using Vendler’s terminology an activity verb *run* is converted into an achievement *run out* by directional *out*). The event of *running out* linguistically has no duration to speak of (though in reality it may take some time), and accordingly cannot combine with the durational adverbial phrase ‘*for X time*’ :

- (32) a. *I ran for hours.*  
 b. \**I ran out for hours.* (acceptable only under a coerced repetitive interpretation)

This pair shows that, even if *out* is used as a directional particle, it has an aspectual impact on the event. Obviously, *run out* does not mean anything like ‘run completely’, so this *out* is not aspectual in the same sense as *out* in *dry out*. Capelle (2005: 349) stresses that the aspectual impact of directional *out* arises as a side-effect of the fact that the path expressed by *out* does not have any length to speak of. Being out is the result of running out, thus we can claim that *out* in *run out* expresses “resultativity”. Leaving out the particle results in a loss of resultative meaning. Moreover, we also claim that the directional particles are not only resultative but perfective markers as well. Bolinger (1971: 97) claims that “the notion of perfectivity can be extended to cover the bulk of phrasal verbs whose meaning have deviated from the more or less literal sum of parts”. This implies that not only non-directional *up* can be characterized as perfective, but also *down*, *out* and other particles as they do not clearly



indicate directions. What is more, Bolinger does not restrict the notion of perfectivity to non-directional particles. The example (31a) shows that the directional particle codes “resultant condition”, the condition of being out. Similarly, the result becomes evident in the following sentences cited by Capelle (2005: 349), in which the directional particles *on*, *back* and *up* involve a resultative interpretation:

(33) *She put her hat on/ sent the books back/ ran the flag up.*

These sentences imply the following: *her hat was on/ the books were back/ the flag was up* as a result. It is easy to recognize that these directional particles function in much the same way as so-called resultative predicates in the resultative construction (e.g. as *flat* in *He hammered the metal flat*). If a particle has a directional meaning, it “may be seen as referring to the state or condition of the person or thing denoted by the object after or in consequence of the action” (Visser 1963: 597). If a particle is not used in its directional sense, it cannot be analysed this way. Thus, the sentences *He cleaned the room up/ typed the paper over* do not imply that the room was up and the paper was over. The result of *cleaning one’s room up* is simply that the room is in a state of order and tidiness. Likewise, the result of *typing the paper over* is that the paper has been typed again and maybe this time it is correct. Since “resultant condition implies perfectivity” (Bolinger 1971: 96), this latter notion should apply to directional particles as well as to non-directional particles. Thus, taking into consideration the above arguments and disagreeing with Bolinger (1971) and Brinton (1985) we conclude that the directional particles are perfective aspect markers.<sup>42</sup>

As Capelle (2005: 353) notes, particles do not express what is called ‘grammatical aspect’ but they can have an influence on the ‘lexical aspect’ of the event as expressed by their corresponding simplex verbs. They certainly do not express perfectivity defined as ‘a special manner of viewing an event, namely in its entirety’. For example, in *John was drinking his beer up*, the progressive makes the event of John drinking up his beer imperfective, despite the presence of the alleged perfectivity marker *up*. This contradiction can be resolved by saying that the event is imperfective (due to the progressive) but telic

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<sup>42</sup> Both Bolinger (1971) and Brinton (1985) have pointed out the inadequacy of the notion of perfective aspect. Bolinger (1971: 98) remarks “the term *aspect* should probably be replaced by *Aktionsart*, to reserve *aspect* for deeper and more systematic phenomena such as the progressive and the perfect tenses”. Brinton (1985: 158) argues that “verb particles in Modern English function as markers of ‘telic Aktionsart, not ‘perfective’ aspect”.

(due to the particle). After all, ‘telic’ is what Bolinger’s non-technical sense of *perfective* comes down to: “the phrasal verb pictures the action as leading to a conclusion” (Bolinger 1971: 96).

## 6.5 The meaning of “perfectivity” and the role of particles in its expression

Traditionally there has been a common perception that the verbal particle has a decisive role in the expression of perfective aspect (cf. Kennedy 1920, Bolinger 1971, Brinton 1988). Kennedy (1920: 27-28), for example, calls attention to the general use of *up* and *down* with the meaning of “perfectivity”, citing examples like *He chopped the tree* vs. *He chopped down the tree*, and noting that in the latter case the phrasal verb pictures the action as leading to a conclusion. Bolinger (1971: 97) borrows the term “perfectivity” from Kennedy (1920) and claims that “the notion of perfectivity can be extended to cover the bulk of phrasal verbs whose meanings have deviated from the more or less literal sum of parts”. Bolinger (1971: 99) lists several ways in which the particle *up* conveys “the perfective meaning closing in on a goal [...] (3) perfective meaning as manifested in resultant condition; (4) perfective in the sense of completion or inception; and (5) perfective in the sense of attaining a high intensity”.

To clarify the meaning of perfectivity, it is worth considering the term “aspect” again. Though the definitions of the term “aspect” vary across the languages and approaches, it is commonly agreed that it can be used in both a narrower sense, in which it refers to grammatical categories which have to do with the structure of a situation or the speaker’s perspective on it (e.g. completed, ongoing, beginning, ending, continuing, repeating, etc.), and in a broader sense, in which it also covers lexical and notional (semantic) categories relating to the classification of situations, hence a division between ‘grammatical aspect’ and ‘lexical aspect’. Above (cf. Section 6.4) we have claimed that verbal particles have an influence on the ‘lexical aspect’ of the verb. Likewise, in Slavic, Brecht (1984), Filip (1993, 1994), Piñon (1993) and Verkuyl (1999) argue convincingly that Slavic prefixes’ contribution to the overall aspectual makeup of the sentence is at the lexical (situation aspect) level. Perfectivity, a phenomenon located on the top of aspectual oppositions (stative /dynamic, telic/ atelic, punctual/ durative, etc.) is defined as follows: (1) the situation or event presented as a whole, in its entirety; (2) the result of the action, the endpoint has been

reached, i.e., the perfective event has a definite result, induces a change of state (Szili 1996, electronic paper). Both Szili (1996) and Kiefer (2006: 45) mention that the grammatical marker of perfectivity in Hungarian is the coverb, the element which delimits an event, i.e. indicates that an event has an inherent endpoint, and turns it into an indivisible whole (though Szili (1996) notes that the former role is more dominant in Hungarian). The grammatical status of delimiters differs from language to language, thus in the Slavic languages it is a verbal prefix and in English a verbal particle that may fulfil this function. The English verbal particles *out*, *up*, *apart*, etc. with concrete spatial meanings and metaphorical extensions supply an aspectual “bound” or limit to an event as well as the potential endpoint (Bybee-Dahl 1989: 86). However, generally the reading of delimitedness and inherent endpoint is referred to as “telic” rather than “perfective” in the English aspectual literature (cf. Tenny 1994). In Slavic, Brecht (1984: 12) also explicitly relates prefixes to telicity marking. Slabakova (2005: 66) discussing the relationship between telicity and perfectivity in Russian (and Slavic) remarks that it is not the case that all perfective verbs are telic.<sup>43</sup> Referring to Borik (2002), she claims that perfectivity cannot be completely equated with telicity. Nevertheless, as Slabakova (2005) further remarks, an important generalization that should be maintained is that most perfective prefixes and telicity markers across the languages of the world have the same meaning: potential endpoint of the event. Summarizing the discussion of perfectivity in Hungarian, Szili (2001, electronic paper) remarks that the perfective event requires the presence of two factors: first, an external delimiter, a definite object to clearly emphasize that the endpoint of an event has been reached, and a perfectivity marker, a coverb. Szili (2001) also notes that we should not make a choice between the two theoretical approaches towards perfectivity, viewing a perfective situation as an indivisible whole as opposed to viewing it as the one which has a culmination, a definite endpoint, since both of them are correct. Ultimately, what should be made clear is which features of perfectivity pertain to a certain language and in Hungarian, according to Szili (2001), this feature is a “well-defined result” or “end-state”. Following Bybee and Dahl (1989), Szili (2001) claims that among the key features of perfectivity–

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<sup>43</sup> For example, the perfective prefixes *po-* and *pro-* delimit the interval during which the event was in progress, but do not mark a culmination in that event (the examples (i), (ii) below are from Borik (2002)). This observation also holds for Hungarian punctual events, e.g. in *a bomba felrobbant* ‘a bomb exploded’, the coverb *fel-* perfectivizes an event, but does not mark telicity either.

(i) *Petja po-iskal knigu.*  
*Petja looked for a /the book.*

(ii) *Petja pro-sidel v tju'rme 5 let/do starosti.*  
*Petja stayed in jail for 5 years/until his old age.*

“totality”, “boundedness”, “result”, “definiteness”, “punctuality”, “event represented as a single unanalyzable whole”<sup>44</sup> – some features are more prominent than others, i.e., the emphasis is laid on different components of the perfective meaning crosslinguistically.

Apart from the above-mentioned factors, perfective events in Hungarian can be identified via the application of temporal adverbials, namely a durative-delimitative adverbial (e.g. *két óra alatt* ‘in two hours’) and a time point adverbial (e.g. *két órakor* ‘at two o’clock’), which identifies the time of a punctual event (cf. Kiefer 2006: 44). Adverbials of the type *in two hours* and *at two o’clock* can also be used to test sentences in English and we will make wide use of them in the present paper. Similar to Hungarian, any event will be considered perfective in English if it co-occurs with a durative-delimitative and a time point adverbial.

Although the above definitions and considerations of the perfective meaning pervade the present work, the view of the perfective as a category that describes the situation in its (indivisible, or unanalyzable) entirety, prevailing among both Slavic and non-Slavic aspectologists, cannot be ignored either. Comrie (1976) links aspect to a number of ‘values’, i.e., aspectual concepts such as duration, punctuality, continuation, progressiveness, phase, habituality, completion, and completeness. Perfective forms represent situations that are completed. Quirk et al. (1985: 188) maintain the same view “the two aspect constructions of English, the perfective and the progressive [...], can be seen as realizing a basic contrast of aspect between the action viewed as complete (perfective), and the action viewed as incomplete, i.e., in progress (imperfective or progressive)”. Similar definitions of perfectivity have been provided in Russian and other Slavonic languages, e.g., Forsyth (1970/2010: 6) discusses the popular explanation first put forward by F. Miklosich, which opposes ‘continuous action’(imperfective) to ‘completed action’ (perfective). Forsyth (1970/2010: 7) also refers the reader to Maslov’s (1959) definition of perfectivity “the category of perfective and imperfective aspect [...] is the reflection of the speaker’s (or writer’s) objectively conditioned choice between the two views of the action denoted by the verb: it may be presented as an indivisible whole – perfective, or without reference to the totality of the action– imperfective” (Maslov 1959: 309). Having examined several definitions of perfective aspect, Forsyth (1970/2010) considers perfectivity as the totality of the situation, i.e., “a total

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<sup>44</sup> Dahl (1985: 78) proposes a prototypical formalization of perfectivity: “A perfective verb will typically denote a single event, seen as unanalyzable whole, with a well-defined result or end-state, located in the past. More often than not, the event will be punctual, or at least, will be seen as a single transition from one state to its opposition, the duration of which is disregarded”.

event summed up with reference to a single specified juncture” (Forsyth 1970/2010: 8). Since then, the notion of totality, which includes ‘completion’ but emphasizes ‘completeness’, has become the standard feature defining the perfective aspect, particularly in the Slavic languages. The literature on Russian aspect has also focused on describing aspect in terms of semantic features, similar to other languages, as shown above, and since perfective is taken to be the marked member of the opposition, i.e. it explicitly refers to the completion of the event (cf. Catford 1965, Bondarko 1971), most features describe the perfective aspect, leaving the imperfective as the default. Janda (2007: 86) lists the most common feature labels traditionally revealed in Russian, which are “boundedness” (cf. also “delimitation” in Bondarko 1971), “totality” (cf. also “completion” in Vinogradov 1972), “definiteness”, “punctuality” and “resultative” (Vinogradov 1972). What this cluster of features tells us is that a perfective verb in Russian describes a single, unique event viewed in its entirety at a given point in time.

To sum up, the following can be said. We have reviewed some of the fundamental approaches to current treatments of the perfective aspect and it is obvious that the aspectual literature is rather divided on the precise formulation of what it means for an event to be perfective. Above we have mentioned the prototypical features of perfectivity; it can be argued that all of these features assigned to the perfective aspect can be regarded as essential components of the perfective meaning (though not all of them are present or equally present in individual uses of the perfective forms). Following Kennedy (1920), Bolinger (1971), Bybee and Dahl (1989), Szili (1996,2001) and Slabakova (2005), in the present work we have adopted an approach to perfectivity according to which verbal particles in English, similar to coverbs in Hungarian and prefixes in Slavic, can perfectivize events by adding an endpoint or specifying the result of an action. The co-occurrence of predicates with *in-* and *at-* temporal adverbials serves as further evidence for the perfective reading of events.

## 6.6 The expressivity of particles

The meaning of the particles sometimes overlaps with that of the verb, as for example, in *fall down*. For this reason, it has been claimed that some particles do not add any meaning to that of the verb and are thus redundant (Jackendoff 2002: 76). Typical examples are: *finish up* (a novel), *finish off* (a cockroach), *open up* (a yogurt), *close up* (a hole). The verb *to finish* inherently implies completion and the particles *up* and *off* contribute precisely this

meaning. The same holds for *open up* and *close up*, where the verbs *to open* and *to close* by themselves imply complete opening and closure, which is also expressed by the particle *up*. Elenbaas (2007: 24), however, claims that despite the overlap in meaning, the particles in these verb particle combinations are by no means redundant. They serve to emphasize the endstate of an inherently telic activity.

To sum up the whole chapter, the following needs to be emphasized. We have made an attempt to show that the categories of aspect and Aktionsart are by no means identical and we have listed the ways in which they can be distinguished. Nevertheless, as has been pointed out, the evidence for the close interaction between the two categories should not be neglected. We have defined event structure as the set of (sub)events with the temporal relationship holding between them. “Event” in “event structure” has been used in a broad sense, covering all sorts of situations, namely states, activities, accomplishments, achievements and semelfactives. The criteria and syntactic tests to determine the five categories have been used in order to help recognize that the occurrence of a certain event type depends not only on the meaning of the individual verbs but on the meaning of the whole verb phrase, the whole sentence and the restrictions on the associated adverbials. We have also presented examples to support the long-recognized fact in the literature that an adverbial particle can telicize an event and provided evidence for the following observation: i. directional particles can have an aspectual impact on verbs; ii. particles can express perfective aspect; iii. particles are not redundant irrespective of the fact that the meaning expressed by the particle is inherently encoded by the verb.

## **7. THE IMPACT OF PARTICLES AND COVERBS ON VERBAL EVENT STRUCTURE – A CONTRASTIVE ANALYSIS**

In this chapter we will provide a detailed classification of event types (situation types) in English and Hungarian. The five event types to be examined in detail are states, activities, accomplishments, achievements and semelfactives. The given classifications are mostly based on Vendler (1967) and Dowty (1979), but in several cases the classifications are further detailed by the author of this dissertation. For each event class we will set up subclasses and clarify essential features typical of the class. Armed with an awareness of the “event structure” that can be identified with time adverbials (cf. Section 6.2), we will look at the ways in which an English particle and a Hungarian coverb can or cannot change the telicity of the verbal predicate and perfectivize the given event by conveying an aspectual or aspect-related meaning.

### **7.1 The stative verb in English and Hungarian**

In this section we examine the class of states, an event class which stays opposed to other event classes in that state is an event that has no perceptible change. Following the description of the features characteristic of the class of states, we will set up the subclasses of stative verbs in Hungarian and English and discuss the differences between steady (unchanging) states and changing (dynamic) states. Finally, we will examine how the Hungarian coverbs and English verbal particles can (or cannot) perfectivize the durative stative verbs, without changing their telicity value.

Vendler (1967) classified English verbs into aspectual categories on the basis of their duration, culmination and temporal structure: they can denote states, activities, accomplishments or achievements (see Section 6.2). States have no internal structure, hence their time interval is divisible. Let us examine the class of statives in more details and argue why this class should be treated as distinct from processes and events like activities, accomplishments and achievements.

The fundamental distinction between state and non-state has been made in the following ways: state/ action, state / process, state / event, no change/ change, static / dynamic, state/ occurrence. In English, this distinction is indicated grammatically by the

occurrence of non-statives in the progressive and statives in the simple form, at least in their basic uses (cf. Dowty 1979: 55-6, as shown in Section 6.2 above). Most scholars (cf. Kenny 1963: 173-8; Ota 1963: 61; Vendler 1967: 99-108; Comrie 1976: 48-51; Smith 1983: 481-490; among others) characterize states on the basis of the following features: (i) inherent qualities of duration and homogeneity; (ii) the lack of change, limits and agency. States exist or endure for an undefined period of time. They do not change or develop during that period; all the temporal phases of a state are undifferentiated. States do not happen; they are not done. They simply are. As their name implies states denote some specific state – existence, possession, relation, perception– they cannot denote change of state. States are unchanging, non-dynamic situations, all phases or stages of a state are the same, while those of dynamic situations are not.

Though states endure for an indefinite period, according to Brinton (1988: 24) most states begin and end; they are brought into being or to a close by a change, that is, by non-state. Change thus is the one feature which characterizes non-states, or dynamic situations. In Comrie's opinion (1976: 49), it is not entirely accurate to say that non-states necessarily involve change, whereas states do not:

With a state, unless something happens to change that state, then the state will continue...

With a dynamic situation, on the other hand, the situation will only continue if it is continually subject to a new input of energy... To remain in a state requires no effort, whereas to remain in a dynamic situation does require effort, whether from inside... or from outside.

Comrie's statement above can perhaps be better understood, if we emphasize another property which states normally lack: volitionality or agency, while non-states often involve acts of will (Binnick 1991: 184). As Binnick explains, under usual circumstances you don't choose to be tall (or short): being tall isn't something you *do*, and it requires no effort to continue being tall (or short). But to be running requires an effort, so that if you don't continue running, you automatically cease running. Thus the difference between the state of being tall and the process of running is that the individual is free to begin, stop or continue running, whereas he is not free to stop, continue or being tall. Thus the prototypical state is non-volitional and non-agentive.

Another important feature of states is non-gappiness (Binnick 1991: 185), while activities and accomplishments allow gaps, as do achievements in their conative, tentative



sense (e.g. *It took a while for her to notice the vase was missing*). Consider an example: If Sue is ill from Monday through Friday, then at any instant *t* during that interval, say at 3:00 p.m. on Wednesday, *Sue is ill* is true and this time interval does not allow gaps. In the ‘real world’, however, states can also be gapped, i.e. Susan, after falling ill on Monday, can get better or feel recovered, say on Wednesday (periodically she might have some minutes of relief), and then continue being ill. Thus in the world, states can also be gapped, but the language data show the opposite. And even though there are moments in Susan’s illness when she feels better, we speak about the continuous state of illness, which is non-gappy. Thus in spite of the ‘world’s’ gappiness, the language data show that states represent persistent, non-gappy situations. As Binnick (1991: 184) concludes:

We are not concerned here with reality, which is non-discrete: there are no spatial or temporal boundaries in nature, no lines demarcating here from there, now from then; nor do states in the real world neatly begin or end at points. It is language which represents the world as consisting of discrete blobs called situations, and these are arbitrary in the sense that subsituations may be situations, too.

Another feature that differentiates states from processes is that states cannot occur with an optional time adverbial. For instance, the following sentences are ungrammatical in Hungarian (Kugler 1991, electronic paper):

- (1) \**Péter öt és hat között szereti Idát.*  
‘\*Péter likes Ida between five and six o’clock’.
- (2) \**Sárának délután van egy macskája.*<sup>45</sup>  
‘\*Sára has a cat in the afternoon’.
- (3) \**A kép évek óta hasonlít az eredetire.*  
‘\*The painting has resembled the original one for years’.
- (4) a. \**Péter javában gyűlölte a hazugságot.*<sup>46</sup>

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<sup>45</sup> However, the sentence *Sárának délután volt egy macskája* ‘Sára had a cat in the afternoon’ is grammatically correct. As Smith (1997: 69, 171) mentions states do not have endpoints, because “endpoints, or changes into and out of a state, are not parts of the state itself”. This bears out with Smith’s tests for perfectivity; whereas all other situations are completed or terminated, states are ambiguous. Consider the English sentences : *Sam owned three peach orchards last year, and he still owns them*, or *Sam owned three peach orchards last year, but he no longer owns them*. In this respect Hungarian does not differ from English.

*\*Péter hated the lie at its height’.*

b. *\*Péter javában birtokolja a házat.*

*\*Péter owns a house at its height’.*

However, statives can be used with the adverb *éppen* ‘just (now)’, if we talk about a changing state.<sup>47</sup> e.g.

(5) a. *Most éppen van egy házam.*

*‘Just (now) I have a house’.*

b. *Éppen kopasz.*

*‘Just (now) he is bald’.*

In English, statives cannot occur with the corresponding adverbials *just* and *only* if we talk about steady (unchanging) states (Brinton 1988: 39). Consider:

(6) a. *\*She is just recognizing a friend here.*

b. *\*He is only resembling his mother.*

Both Hungarian and English examples clearly show that states are unchanging through their duration, cannot be broken, their time interval is divisible, statives cannot appear in the progressive form in English.

Finally, the last characteristic feature of states is that states cannot be completed, thus cannot be perfectivized. While process verbs such as *run*, *cook*, *write* in English and the corresponding *fut* ‘run’, *főz* ‘cook’, *ír* ‘write’ in Hungarian can be turned into perfective by means of perfectivization, e.g. verbal particles such as *down* and *up* in English (e.g. *run up/down*, *cook up*, *write down*), and *le-* ‘down’, *meg-* (perf.) in Hungarian, respectively (e.g. *lefut* ‘run down’, *megfőz* ‘cook’, *megír* ‘write’), the stative verbs cannot (Kiefer 1999: 79-91). However, in this study we intend to show that changes in emotional, perceptual and

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<sup>46</sup> Kiefer (2009: 248) points out that the criteria proposed in the literature (cf. Dowty 1979) for separating statives and activities do not work properly in Hungarian, however, the adverb *javában* ‘at its height’ may be perfectly used for this purpose. Kiefer also mentioned (personal discussion) that stative verbs such as *gyűlöl* ‘hate’ and *szeret* ‘like, love’ possess gradable properties, thus they behave as atypical states. Consequently, these statives can occur with an adverbial *egyre inkább* ‘more and more’, yielding a grammatical sentence, e.g. *Péter egyre inkább gyűlölte a hazugságot* ‘Péter hated lying more and more’.

<sup>47</sup> Such an explanation and the sentences were provided by Kiefer (personal discussion).

cognitive states can be expressed by the verbs of perfective aspect, with the help of the perfectivizing coverb *meg-* in Hungarian (e.g. *megszeret* ‘come to love’, *meglát* ‘spot’, *megért* ‘understand’. (The perfectivizing possibilities of stative verbs will be discussed in the subsequent section).

### 7.1.1 The semantics of stative verbs

As was mentioned above, the common feature of stative verbs is that they denote some state, much rather than some happening or activity. The number of subclasses of stative verbs can be virtually infinite: the classification may be based on consideration of different parameters (e.g. the syntactic features of verbs, as in Dowty (1979: 66)). The present classification of stative verbs goes into detail with the account of the semantics of verbs. First, we set up and examine the subclasses in Hungarian, which serve as the good starting point for setting up the classification of verbs in English. The classes of stative verbs (predicates) that can be found in Hungarian are the following (the classification below is established by the author of the present dissertation):

#### 1. Stative verbs of existence, belonging, possession and relation:

- a. *létezik* ‘exist’, *van* ‘be’, *él* ‘live’, *lappang* (betegség) ‘be latent’
- b. verbs denoting possession: *birtokol* ‘own’, *van valamije* ‘have’
- c. verbs of relation: *hasonlít* ‘resemble’, *ellentétben áll* ‘be in contrast’, *áll* (valamiből) ‘consist of (smth)’, *tartozik* (vkihez, vmhez) ‘belong to (smb, smth)’, *számít* (vmi) ‘(smth) count, matter’, *tartalmaz* ‘contain’, *vonatkozik* ‘concern’
- d. verbs expressing human relations: *gondoskodik* ‘take care of’, *törődik* ‘take care of’, *gonoszkodik* ‘be wicked’, *szeretkezik* ‘make love’, *ölelkezik* ‘embrace’, *levelezik* ‘correspond (with sy)’

#### 2. Verbs of cognition – emotional and intellectual:

- a. verbs denoting conscious states: *emlékezik* ‘remember’, *ismer* ‘know (sy, sg)’, *hisz* ‘believe’, *remél* ‘hope’, *tud* ‘know’, *kétkedik* ‘doubt’, *vminek tekint*, *tart* ‘consider’, *ellenez* ‘oppose’, *észlel* ‘notice’, *vél* ‘think’, *feltételez* ‘suppose’, *akar* ‘want’
- b. verbs denoting emotional states: *örül* ‘feel happy’, *haragszik* ‘be angry’, *fél* ‘feel fear’, *szeret* ‘like, love’, *idegeskedik* ‘be worried’, *reménykedik* ‘hope’, *szomorkodik* ‘be sad’, *türelmetlenkedik* ‘be impatient’, *hitetlenkedik* ‘be sceptical’, *irigyel* ‘envy’, *sajnál* ‘regret’

- c. middle verbs: *betegeskedik* ‘be sick’, *gyengélkedik*, *nyavalyáskodik* ‘be unwell’<sup>48</sup>
- d. verbs of perception: *lát* ‘see’, *hall* ‘hear’, *érez* ‘feel’, *ízlel* ‘taste’
- 3. Verbs with coverbs with stative meanings: *kilóg* ‘hang out’, *elér* ‘make a price’, *ellát* ‘see as far as the eye can reach’, *kitesz* ‘amount to’
- 4. Locatives – verbs expressing the position of a human body: *ül* ‘sit’, *áll* ‘stand’, *fekszik* ‘lie’, *térdel* ‘kneel’, *guggol* ‘crouch’, *pihen* ‘rest’

The verbs of the first subclass denoting existence, belonging, possession and relation are highest in stativity (most durative) if put on a scale of stativity and thus they cannot occur with temporal adverbials.<sup>49</sup> The verb *van* ‘be’ in Hungarian has an important syntactic function: combined with adjectives, it forms a compound predicate (e.g. *beteg lesz* ‘s(he) will be ill’, *beteg volt* ‘s(he) was ill’, *hasonló volt* ‘it was similar’, etc.).

The verbs of the second subclass (verbs of cognition) designate cognitive and emotional processes, participants of which are human beings who “know, think, feel” (Halliday 1985: 115-19). In Halliday (1985), the subject of knowing or believing is potentially a *Senser* or *Cognizer*. According to Komlósy (1992: 358- 61), however, the subject of the verbs denoting emotional and cognitive states is not an *Agent*, but rather an *Experiencer*. Volitionality does not arise in the case of these verbs. Statives cannot occur as imperatives, but only as optative sentences. Consider: *Ne türelmetlenkedj! Reménykedj már egy kicsit!* ‘Don’t be impatient! Have a bit of hope’. As Kiefer (2006: 263-4) mentions, it is not possible to persuade an individual to experience an emotional state. Among the members of the class, we can also find verbs formed from adjectives and nouns (e.g. *idegeskedik* ‘be nervous’ formed from the adjective *ideges* ‘nervous’, *reménykedik* ‘hope’ from the noun *remény* ‘hope’). Thus, as is observed, the verbal meaning can be expressed via adjectives as well. Middle verbs which appear as grammatically passive forms also have the corresponding adjectival pair: *betegeskedik* ‘be sick’ – *beteg* ‘sick’, *gyengélkedik* ‘be unwell’ – *gyenge* ‘infirm (talking about sy’s health)’.

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<sup>48</sup> The ‘middle verb’ is a term for a special class of verbs that is grammatically active, though the meaning is closer to the passive. In Hungarian, the middle verb is often reflexive, denoting that the subject acts on or for itself, such as *Péter mosakodik* ‘Péter washes’ or passive reflexive as in *Péter betegeskedik* ‘Péter is unwell’.

<sup>49</sup> In English, Mufwene (1984: 36-7) defines stativity as “potential for performance” and proposes a scale of stativity in which verbs such as *contain* and *concern* are highest in stativity (most durative), verbs such as *kick* and *die* lowest in stativity (least durative), and punctual verbs such as *wait*, *work* and *call* are neutral; the scale essentially indicates ‘the lexical potential of the verb to be inflected’ in the progressive. Mufwene’s scale of stativity applies well to Hungarian with the only exception that the verbs are not used in the progressive form.

The third subclass of statives contains verbs with coverbs with stative meaning. In every case it is the coverb that contributes to the stative meaning of the verb. In *Értelmező Szótár* (2007: 295, 310, 807, 848), the following examples can be found: the verb *kilóg* has two stative meanings 1. 'kívülre lóg, helyéről kimozdulva, kicsúszva lóg, pl. ruha' (Eng. 'hang out'); 2. (célzatosság, szándék) visszatetsző módon nyilvánvaló lesz: nem illik bele vmibe ~ vmi valamiből: a társaságból (Eng. 'be the odd one out'), the verb *elér* has a stative meaning 'olyan méretű, mértékű, hogy bizonyos határ(vonal)ig terjed(het), pl. összegben' (Eng. 'make a price'); similarly, the verb *ellát* also has a stative meaning 'vhonnan vhoval v. nagyobb távolságra látni képes' (Eng. 'see as far as the eye can reach'). As can be seen, the verbs above denote state if they are formed with coverbs though in most cases the basic verbs are stative as well.

The last subclass includes verbs which denote different positions of a human body, e.g. *ül* 'sit', *áll* 'stand', *pihen* 'rest', *fekszik* 'lie', etc. If put on a scale, these verbs are neutral. There is a tendency cross-linguistically for statives to be linked to imperfectivity and nonstatives (especially punctuals) to perfectivity. Since the verbs of this subclass are neutral, they have the lexical potential to be turned into perfective by the proper perfectivizing means. When the particle combines with the verb denoting state, i.e. some position of a human body, the complex verb denotes the beginning of a state and in this sense the verbal particle brings about a change of state. With a human subject these expressions refer to agentive activities, i.e. the agent deliberately triggers a change of state. Later we will show the perfectivizing means which can trigger the change of state of the position of the human body.

Let us examine now the class of statives in English.

In English, the following subclasses of stative verbs can be set up (the present classification is made on the basis of Dowty (1979: 66) and Brinton (1988: 38)):

1. Verbs of relation and state: *be, have, appear, belong to, concern, consist of, contain, cost, deserve, differ from, exist, include, interest, involve, lack, matter, own, possess, resemble, seem, stand for*
2. Verbs of cognition – emotional and intellectual: *assume, believe, care, detest, dislike, doubt, hope, imagine, know, like, love, mean, need, notice, prefer, realize, recognize, regret, remember, suggest, suppose, understand, want, wish, envy, fear, find, hate*
3. Physical perception verbs:<sup>50</sup> *see, hear, sound, smell, taste, feel, perceive*
4. Aspectually ambiguous verbs:<sup>51</sup> *compare (with), consider, depend on, expect,*

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<sup>50</sup> Physical perception verbs can be treated as aspectually ambiguous similar to the verbs of class 4.

*feel, hold, measure, mind*

5. Locatives – verbs expressing the position of a human body: *sit, stand, lie, sleep, rest, hang, kneel*

The verbs of the first subclass in English being most durative (cf. Mufwene 1984) are incompatible with the progressive form. Consider the following sentences (compiled by the author of this dissertation based on Brinton's (1988: 39) explanation and similar examples):

- (7) a. \**Your house is costing a lot.*  
b. \**Her family is consisting of four people.*

The two most frequently occurring verbs in English are *be* and *have*, which are also incompatible with the progressive aspect, e.g.

- (8) a. \**You are being tall.*  
b. \**I am having a house.*

However, there are a few exceptions when the verb *be* supplied with some adjectives and nouns can occur in the progressive form. Consider Brinton's (1988: 39) sentences below:

- (9) a. *You are being silly again.*  
b. *He's being a nuisance.*  
c. *Food is costing a lot these days.*

The occurrence of stative verbs in the progressive form can be explained in one of two ways: (i) either the state is considered temporary (limited/ passing) and contingent rather than permanent and essential (Jespersen 1932: 220-1; Comrie 1976: 36); (ii) or the state is considered to be given an 'activity' or 'event' reading (Comrie 1976: 36; Smith 1983: 497-98). The two explanations are sometimes combined: states in the progressive are said to name a 'contingent activity' (Hirtle 1967, in Brinton 1988: 39). According to Smith (1983), "...Presenting a state as an event endows it with the dynamism of an event" (Smith 1983: 498). Many verbs of perception and cognition make the transition to 'active' readings quite

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<sup>51</sup> The majority of these verbs can also be found in the other subclasses of stative verbs.

easily when they express volition and change. Other state verbs do too, if they name characteristics closely associated with various kinds of behaviour (cf. (9a) and (9b)). However, if no dynamic meaning is possible, which is the case with many ‘pure’ states expressing relation or possession, the progressive merely suggests, rather than expresses, change; that is, the state is seen as temporary, limited, or contingent, as having recently begun or as about to end or both (Brinton 1988: 40). As Comrie (1976) points out, the temporary meaning follows from the dynamic meaning (Comrie 1976: 37-38). Thus the effect of the progressive with a state is to portray the state, which is not dynamic, *as if* dynamic. The occurrence of the progressive with the verbs of cognitive and emotional state receives the same interpretation as with the verbs of the subclass above, thus we do not examine it separately.

The next subclass is physical perception verbs. Since we think that the representatives of this class are also aspectually ambiguous, it seems plausible to examine the verbal meanings of this group in detail. We claim that the members of this subclass convey different meanings since they can function as ‘instinctive’ verbs, activity verbs and copulas. Consider the following examples (compiled by the author of this thesis):

a. The *see* -type verbs:

instinctive: *see* e.g. *I can see some clouds.*

activity verb: *look (at)* e.g. *He is looking at the photo.*

copula: *look, appear, seem* e.g. *It looks a fine day / It seems a good choice.*

b. The *hear*-type verbs:

instinctive: *hear* e.g. *I can hear strange noises.*

activity verb: *listen (to)* e.g. *He is listening to Beethoven.*

copula: *sound* e.g. *It sounds great.*

c. The verb *smell*:

instinctive, e.g. *I can smell gas.*

activity verb, e.g. *He is smelling roses.*

copula, e.g. *It smells of fresh lemon.*

d. The verb *taste*:

instinctive, e.g. *I can taste garlic.*

activity verb, e.g. *He's tasting the salad.*

copula, e.g. *It tastes awful.*

e. The verb *feel*:

instinctive, e.g. *I can feel a drawing pin in my bum.*

activity verb, e.g. *He's feeling the child's forehead.*

copula, e.g. *It feels like ice.*

As can be observed from the examples above, the five verbs of perception in English may have several meanings. Below we briefly discuss these meanings.

If *see*, *hear*, *smell*, *taste* and *feel* are used as the verbs of 'instinct', i.e. denoting an instinctive activity, their common feature is that they are typical statives, expressing some perceptual state rather than a conscious activity. These verbs cannot occur in the progressive form even if we want to emphasize that the activity is or was in process. These verbs describe the states over which an individual does not have control. If the verbs above are used as activity verbs, i.e. an individual consciously 'feels' something, then their common feature is that they are dynamic verbs, expressing conscious activity. Consequently, they can be used in many tenses, thus in the progressive form as well. In the case of verbs such as *smell*, *taste* and *feel* it is exactly the tense (or the usage with modals *can/could*) that helps to distinguish the instinctive and conscious activity, e.g.

- (10) a. *He could smell Liza's perfume in the room.* (instinctive activity)  
b. *Why are you smelling that meat? There is nothing wrong with it.*  
(conscious activity)

If the above *look*, *sound*, *smell*, *taste*, *feel* as well as *appear*, *seem* are used as copulas (i.e. verbs which connect the subject to the adjectives or noun phrases that describe the subject, often referred to as linking verbs), then the things the subject noun phrase refers to 'have some effect' on an individual and their common feature is that they are statives, consequently cannot be used in the progressive. Consider:

- (11) Copula + adjective:

- a. *It looks dirty.*  
b. *It sounds correct.*  
c. *It seems logical.*  
d. *It tastes delicious.*

- (12) Copula + a noun phrase:

- a. *She looks a perfect stranger.*



- b. *It appears a sensible idea.*
- c. *He sounds a complete idiot.*

The verbs belonging to the Aspectually ambiguous subclass of stative verbs have at least two meanings but may have even more. Consider the meanings of the following verbs from *Merriam-Webster's Online Dictionary*:

Verb	Static meaning	Dynamic meaning
<i>compare (to)</i>	'to bear being compared'	'to make comparisons'
<i>consider</i>	'to regard or treat in an attentive way'	'to think about carefully'
<i>expect</i>	'to consider probable or certain'	'to anticipate or look forward to the coming or occurrence of'
<i>feel</i>	'to be aware of by instinct or inference'	'to handle or touch in order to examine, test or explore some quality'
<i>hear</i>	'to perceive or apprehend by the ear'	'to gain knowledge of by hearing (e.g. to give a legal hearing)'

Above, we have already provided the interpretation of the features of static and dynamic verbs, thus further analysis is not needed.

And finally, the last subclass of statives in English is that of locatives, i.e. verbs denoting positions of a human body such as *sit*, *sleep*, *stand*, *rest*, etc. It is highly debated in English whether this subclass should enrich the class of statives or that of activities. As Brinton (1988: 35) emphasizes, Dowty (1979) is correct in distinguishing between agentive and non-agentive activities, single changes (achievements) and complex changes (accomplishments), but states are always non-agentive, thus Dowty's categorisation of locatives is inappropriate. Brinton (1988: 35) further argues that expressions such as *sit*,

*stand*, and *lie* with a human subject refer to agentive activities, not states; they even meet two of Dowty's proposed tests for activities: *What he did was sit on the couch*; *He was sitting on the couch* implies *He has sat on the couch*. Dowty distinguishes a separate category of 'internal statives' to account for sentences like *Your glass is sitting near the edge of the table* (Dowty 1979: 173-9). The verbs *sit*, *stand* and *lie* with an inanimate subject name single states, which in conjunction with the progressive yield the meaning of 'temporary' or 'contingent' state (Brinton 1988: 36). In the Aristotelian classification, however, these distinctions are not criterial, i.e. both activities and states may be agentive and both may be persistent. Thus accepting the Aristotelian theory, we consider locatives as a subclass of stative verbs.

### 7.1.2 Perfectivization

We have already mentioned above that statives unlike nonstatives cannot be perfectivized by means of verbal particles either in Hungarian or coverbs in English; statives are normally associated with an imperfective aspect. Nevertheless, the question arises whether it holds for all subclasses of statives. Below we examine how verbal particles in English and coverbs in Hungarian can turn an imperfective stative verb into an aspectually perfective event.

The verbs of the first subclass denoting existence, belonging, possession and relation being most durative cannot occur with the verbal particles and coverbs either in English or Hungarian. Consider examples in Hungarian: *\*ellétezik*, *\*meg-/elhasonlít*, *\*fel-/megtartozik* and in English *\*cost in/up/down/out*, *\*lack in/up/down/out*, *\*seem in/up/down/out*. These expressions result in semantic anomaly. From our observations of the cases in Hungarian it follows that some stative verbs of this subclass can occur with a coverb in which case the stative reading is lost and the verb with a coverb receives a dynamic interpretation with a changed, often metaphorical meaning, e.g. *él* 'live'– *megél* 'earn/ make one's living', metaphorical when used with an adverb *nehezen* ('hardly'): 'survive or make ends meet'; *birtokol* 'possess'– *elbirtokol* (vknek a tulajdonát) 'deprive sy of property' (these examples come from the author of this study). In English such cases are not found. Thus we can conclude that the stative verbs of the first subclass cannot be turned into aspectually perfective verbs by any means.

The verbs of the second subclass contain verbs of cognition – emotional and intellectual. In Hungarian, following Kiefer (2006: 31, 169), we claim that many verbs of this

subclass can occur with the perfectivizing coverb *meg-* expressing instantaneous changes in emotional, perceptual and cognitive states. Consider:

1. Verbs expressing changes in emotional states: *megszeret* ‘come to love’, *megkedvel* ‘come to like’, *meggyűlöl* ‘come to hate’, *megirigyel* ‘become envious of’, *megsajnál* ‘take pity of’, *megörül* ‘become happy / pleased’, *megharagszik* ‘become angry with sy’;
2. Verbs expressing changes in perceptual states: *meglát* ‘spot’, *megérez* ‘become conscious of’, *meghall* ‘hear/ get to know’, *megpillant* ‘glimpse’, *megízlel* ‘taste’;
3. Verbs expressing changes in cognitive states: *megért* ‘understand’, *megismer* ‘come to know sy’, *megtud* ‘come to know/ realize’.

In accordance with the principle of compositionality, we assume that the meaning of the verb that expresses a change in some (emotional or cognitive) state is inferred from the meanings of a base verb and that of a coverb. Since the base verb denotes state, the change which occurs in a state can be triggered by a perfectivizing coverb. But here one question arises: what is the meaning of the coverb *meg-* in the above cases? Can it be the beginning (inchoative Aktionsart) of an emotional, perceptual or cognitive state or rather a process which results in a state? Kiefer (2006: 169) shows that although verbs formed with the help of this coverb in some cases can have the inchoative meaning (e.g. *megszeret*, *meggyűlöl*, *megkedvel*), the class of such verbs is closed and other verbs with similar meanings formed by means of the perfectivizing coverb do not express an inchoative meaning (e.g. *megsajnál* does not mean that somebody begins or starts taking pity). In the case of most verbs expressing changes in emotional states we have punctual events with subsequent states (e.g. *megszeret* ‘come to love’ and the subsequent state is *szeret* ‘love’, or *megörül* ‘become happy/ pleased’ with a subsequent state *örül* ‘be happy/pleased’). However, verbs expressing perceptual change do not have subsequent states, e.g. *meglát* ‘spot’, *megpillant* ‘glimpse’, *meghall* ‘hear/ get to know’. Verbs of change in emotional states are compatible either with the *alatt* adverbial phrase referring to an exceedingly short period of time, e.g. *rövid idő alatt* ‘in an instant’ or the adverbial taking the case suffix *-ra* that denotes the short length of a resulting state (though these tests do not hold for every verb), e.g.

- (13) a. *Péter rövid idő alatt megkedvelte Marit.*  
           ‘Péter began to love Mari in an instant’.

- b. *Egy pillanatra megsajnálta őt, de csak egyetlen, rövidke pillanatra.*<sup>52</sup>

(authentic sentence, source: A Justin Black ügy

<http://www.adampiper.freeblog.hu/archives/2006/08/.../1791380>)

*I took pity on her for a moment, but only for a short, single moment*’.

Verbs expressing changes in perceptual states most often occur with a time point adverbial (e.g. *két órákor* ‘at two o’clock’) which identifies an instantaneous change that results in a state, e.g.

- (14) *Péter három órákor meglátta Marit.*

*‘Péter saw Mari at three o’clock’.*

Representatives of all three classes are compatible with with a phrase *egy pillanat alatt* ‘in an instant’ to denote short duration and also with a time point adverbial (e.g. *két órákor* ‘at two o’clock’) to identify the time of the punctual event. Consider:

- (15) a. *Péter egy pillanat alatt megszerette/meglátta/megismerte Marit.*

*‘Péter began to love/spotted/came to know Mari in an instant.’*

- b. *Péter két órákor meglátta/megismerte Marit.*

*‘Péter spotted/came to know Mari at two o’clock’.*

The facts above allow us to conclude that verbs expressing changes in emotional, perceptual and cognitive states are achievements leading to changes of state. The examples above show that the coverb *meg-* can express changes in emotional perceptual and cognitive states yielding a perfective event.

In English, verbal particles do not occur with verbs denoting emotional, perceptual and cognitive states. Yet in some cases the particle *out* does occur with physical perception verbs, but the stative verb formed with the help of this particle receives a dynamic reading, e.g. *hear* (stative) – *hear out* ‘to hear all of what someone has to say’ (dynamic), *smell* (stative) – *smell out* ‘detect by smelling’ (dynamic), *sound* (stative) – *sound out* ‘discover’(dynamic), *see* (stative) – *see out* ‘show sy out’ (dynamic) (cf. discussion above).

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<sup>52</sup> Kiefer (2006: 229- 230) mentions that the events similar to this have a reversative subsequent state.

The verbs of the final subclass of statives are locatives. As was mentioned above, the verbs of this subclass are neutral on the scale of stativity, thus the preceding state expressed by a complex particle verb can be easily changed. Perfectivizing particles bring about a change of state. Consider the following examples in English: *sit – sit down /sit up*, *stand – stand up*, *lie – lie down*, *kneel – kneel down*, etc. and in Hungarian *ül ‘sit’– leül ‘sit down’*, *áll ‘stand’– feláll ‘stand up’*, *pihen ‘rest’– lepihen ‘have a rest’*, etc. Verbal particles in English and coverbs in Hungarian turn the durative stative verbs, which denote different positions of a human body, into perfective events, because the change of the preceding state expressed by the verb and the particle or coverb is always a perfective event, whereas the duration of the event is not. Aspectually, the perfective verbs denote achievements which are compatible with the time point adverbials and an adverbial taking the case suffix *-ra* in Hungarian that corresponds to a *for*-adverbial in English. The case suffix *-ra* with adverbials in Hungarian and *for*-adverbials in English denote the length of a resulting state. In the case of locative perfective events, the agent controls the length of the subsequent state (Kiefer 2006: 235-236). Compare the Hungarian and English examples:

- (16) a. *Zsolt három órakor leült.*  
       ‘Zsolt sat down at three o’clock’.
- b. *Zsolt egy röpke pillanatra leült.*  
       ‘Zsolt sat down for a fleeting moment’.
- (17) a. *Peter lay down on the bed at three o’clock.*
- b. *Peter lay down on the bed for a moment.*

In the analysis above we have shown how the perfectivizing particles in English and coverbs in Hungarian can turn the inherently imperfective stative verbs into perfective events. It has turned out that perfectivization is possible only in the case of emotional and cognitive verbs in Hungarian and locative verbs in both languages. The analysis carried out has revealed that with the termination of a state we have achievement events which have subsequent states.

## 7.2 Activity verbs and telicity

### 7.2.1 Activity verbs, telicity and particles in English

In this section we take a closer look at the interaction of particles with the class of activity verbs. Activities are usually processes that involve physical or mental activity, and consist entirely in the process itself. Typical activities are *run, laugh, enjoy*, etc., but a more detailed classification of activity verbs will be presented below. Activities terminate or stop, but they do not finish: the notion of completion is irrelevant to a process event. Activities go on in time in a homogeneous way and according to Vendler (1967: 133) “any part of the process is of the same nature as the whole”. The present classification of activity verbs is based on Dowty (1979: 67), which is somewhat simplified by the author of this study in a way that the subcategorisation of verbs is made mainly on the basis of semantic properties of verbs with partial consideration of their syntactic properties. Such a simplification, however, does not affect our argumentation. Although activity verbs can be categorised in different ways, for the present research Dowty’s classification is suitable and seems to be well-grounded as it shows different kinds of verbs in each subclass, though Dowty himself notes that he does not intend to give “either exhaustive or mutually exclusive categories” and he does not “attach any theoretical significance to them” (Dowty 1979: 65). Thus the class of activity predicates includes the following subclasses:<sup>53</sup>

1. Volitional adjectives with individuals as subjects: *be brave, greedy, rude, nice, polite, obnoxious*.
2. Agentive activities involving some behaviour: *be a clown, hero, bastard, fool, stick-in-the mud*.
3. Activity of animate and inanimate subjects: *vibrate, rotate, hum, run, rumble, roll, squeak, roar*.
4. Cosmological: *thunder, rain, snow*.
5. Animate subjects: *cry, smile, go, walk, run, swim, talk, dance, ride*.
6. Transitive or ‘object deletion’ verbs: *smoke, eat, drink, play (music)*.

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<sup>53</sup> All the examples of activity verbs (predicates) in this section were compiled by the author of this dissertation but were subject to native speakers’ judgements to avoid mistakes. The presented analysis is based on the author’s ideas.

7. Verbs of movement with nominal predicates: *drive, carry, push* NP.
8. Transitive verbs with a nominal phrase: *sit, write, ride on* NP.
9. Non-extensional Object: *seek, listen for, look for, search for*.
10. Physical Perception Verbs (transitive and two-place phrasal):<sup>54</sup> *listen to, watch, taste, feel, smell*.
11. ‘Aspectual’ complement Verbs: *keep, continue*.

The activity verbs of the first two subclasses cannot be telicized with the help of particles. Perfectivity in the activity verbs of this subclass is achieved by the use of tenses. Consider the following sentences:

- (1) a. *John is brave.*  
       b. *John was brave yesterday.*  
       c. *John has been brave since his childhood.*
- (2) a. *James is a hero.*  
       b. *James was a hero.*  
       c. *James has been a hero.*

Both (1a) and (2a) express habits in the simple form. Brinton (1988: 16) argues that the simple form is a marker of *perfective aspect* and similarly to the simple past which indicates a past perfective situation, that is, a situation seen as a completed whole, as in (1b) and (2b), the simple present indicates a present perfective. He further claims that states and habits are by necessity viewed perfectly since, being non-dynamic, states are incompatible with the imperfective and habits are viewed perfectly since equivalent expressions in the imperfective express single ongoing situations (e.g. *John is walking to work*). In viewing such situations perfectly, the English speaker is not focussing on a particular instantiation of a habit, nor claiming that it is currently going on; rather he is viewing the situation as existing as a complete whole (Brinton 1988: 17). As far as (1c) and (2c) are concerned, Brinton (1988: 44) mentions that in the case of atelic verbs, owing to the “character of the main verb (but not the perfect!)”, there is “no implication of the action having reached any goal”.

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<sup>54</sup> By a ‘two-place phrasal’ Dowty (1979: 66) means a semantically essential noun phrase which follows a preposition.

The verbs of the third subclass cannot interact with particles that can telicize the event (telic verb-particle patterns are usually transitive). The verbs of this class are intransitive. As Capelle (2005: 45) points out telicity may be linked up with transitive verbs (even if these verbs may have intransitive uses) and atelicity may be linked with intransitive verbs.<sup>55</sup> Though it cannot be absolutely true, because exceptions like *drive a car*, *play a guitar*, *push the cart*, *sweep the floor*, etc. are all transitive but atelic. Still, it is obvious that a telic event should necessarily involve an undergoer argument, that is, an argument over which the speaker predicates the change of state coinciding with the endpoint of the event. Due to this implication, the sentence *The engine roared for an hour/ all night long* sounds completely acceptable being atelic, whereas *\*The engine roared up in an hour* is odd and the event of roaring cannot be telicized by the particle. Similarly, we have an atelic reading of the verb *vibrate* in the sentence *The strings of the violin vibrated for a while* but one would not say *\*The strings of the violin vibrated down in a few minutes*. Though the sentence *The ball rolled down* is absolutely correct, here the perfectivizing factor is the direction expressed by the directional particle *down* and not by a truly aspectual particle. For these verbs, there is only one argument, realised as an inanimate subject.

A telic event requires the use of the direct object or an internal argument that can be realised as either an object or a non-agentive subject. Transitive verbs of creation (*make*, *write*) and verbs of consumption (*eat*, *drink*) have a common property: they have Incremental Theme objects (Dowty 1991: 587-92). These objects are affected by the event in a special way in that they “measure out” the progress of the event (Tenny 1994: 51). For example, *drive a car* or *eat an apple* (both atelic events) do not tell us much about the progress of the event, but in *push the cart to the store* there is an element which undergoes an explicit change of position and in this case a path delimits the event.<sup>56</sup> An atelic event does not involve an undergoer argument, since it does not include a definite endpoint. Following the discussion in Filip (2005: 92-109), we claim that activity verbs taking Incremental Themes (e.g. *write*, *read*) can turn into accomplishments by the addition of a quantized object (*write a letter/ the*

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<sup>55</sup> It is often assumed that there are two kinds of intransitive verbs: inherently intransitive ones like *snore*, whose surface subject is also underlyingly a subject, and intransitive ones like *heal* in its intransitive use, whose subject is in fact claimed to be an underlying object. This hypothesis is known as the Unaccusativity Hypothesis (Perlmutter 1978: 157-89).

<sup>56</sup> The broad notion of UNDERGOER (after Van Valin 1990) includes objects of verbs of creation/consumption like *eat*, as well as objects of verbs of translational motion like *push* and *drive* (Ramchand 2008: 11).



*letter/ two letters*).<sup>57</sup> Stative verbs (*love, belong*), some activity verbs (of the class mentioned above) and achievement verbs (*recognize, reach*) do not take Incremental Themes. Consequently, their objects' quantization cannot change these predicates' telicity values (e.g. in the stative predicates *love fish* vs. *love the colour* no matter whether the object is quantized or not, the predicate is still stative and cannot delineate a process). These verbs can be considered as inherently (or lexically) atelic.

As Capelle (2005: 45) recapitulates, correspondence between (a)telicity and (in)transitivity should be kept in mind because it may provide a clue to the question of how particles play a role in argument realization. Since particles have been claimed to play a role in the (a)telicity of the event expressed by the verb phrase they occur in, it is not surprising that they also have an impact on the (non-)expression of verb arguments.

Similar to the verbs of subclass (3), 'cosmological' activity verbs of subclass (4) are also inherently intransitive, thus cannot be telicized by a quantized object and appear to be insensitive to the presence of particles.

Before analysing activity verbs of subclass (5), we should throw some more light on the aspectual nature of directional particles. Though the effect of both directional and non-directional particles on the verb has already been discussed in the previous section, we feel it important to deal with the properties of directional particles, as markers of resultativity and hence perfectivity, in more detail. Capelle (2005: 362) distinguishes the following directional particles: (i) those that are basically locative but that are interpreted as expressing a nonextended path in a motion construction: *apart, aside, away, back, in, out*; (ii) those that express a path that may or may not be bounded: *by, down, up* 'to a higher position' (apart from these two classes, there are two other classes of directional particles which we do not examine in the present paper). Motion events involving particles of the first group are non-durative (using Vendler's terminology they are achievements). For example, as already shown in Section 6.4, an event like *run out* has no duration to speak of, and cannot combine with a durational adverbial phrase '*for X time*' (e.g. *\*I ran out for a few minutes*). Motion events involving particles of the second group can be either telic or atelic. Accordingly, they are compatible both with '*in X time*' and '*for X time*' temporal adverbials. Capelle (2005)

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<sup>57</sup> In Krifka's (1998) sense a cumulative argument leads to a cumulative, thus atelic verbal predicate (e.g. *build some houses*); if a predicate is semantically quantized, it denotes an eventuality with an inherent temporal delimitation, i.e., it is telic. The example of the quantized predicate can be *a glass of water*; it is clear that a glass of water and another glass of water do not make a glass of water. Proper parts of a glass of water are not the same thing as a glass of water. Thus, *a glass of water* is a quantized predicate.

underpins this fact with the following examples: referring to a mountain and its peak, one can say *I climbed up in five hours*; referring to the upward path itself, one can say *I climbed up for five hours (before I headed back or before the path sloped downward again)*. In the first case, the path is conceived of as end bounded by the peak, whereas in the second case, the path is not construed as having a definite end-boundary, i.e. the end-boundary is not within the focus of attention, the situation is atelic. Thus, depending on the context verb particle constructions may be sometimes telic or atelic.

Telicizing aspectual particles of completion denote an endpoint or a goal of the event. According to the type of telicizing particle two types of telic situations can be distinguished: those describing a change of state and those describing a change of location. Now let's turn back to the activity verbs of subclass (5), which include motion verbs like *go*, *walk*, *run*, *swim*, etc. and other activity verbs like *cry*, *smile*, *talk*, etc. The verbs of this group are intransitive, whose subject underlyingly is animate. While the perception verbs of this subclass can become perfective due to the purely aspectual particles, motion verbs can be telicized by the directional particles which contribute the notion of endpoint to the process. Hence, for instance, *cry out*, *smile up* and *talk up* become “perfective in the sense of attaining high intensity” (this meaning is emphasized by Bolinger 1971a: 99-100). Let us also analyse the following subset of examples involving motion verbs. We will use the ‘*in/ for X time*’ test for expository purposes here.

- (3) a. *John went for hours / \*in an hour before he reached the first village.*  
       b. *John went in \*for a few minutes/ within a few minutes without saying a word.*<sup>58</sup>
- (4) a. *Sylvia walked for hours/ \*in an hour.*  
       b. *Sylvia walked up **within a few minutes** / \*for a few minutes and saw the mess in the attic.*  
       c. *During her long trip Sylvia walked up and down (the hill) aimlessly **for hours** / \*in an hour.*

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<sup>58</sup> Notice that the phrase *for a few minutes* is used here as identical to the expression *spend a few minutes doing*, which is used to measure the duration of the motion event, but it may also denote the length of the resulting state, in this case the reading of the sentence *John went in for a few minutes* is acceptable. The adverbial *within a few minutes* is similar to the expression *in a few minutes*, but in the contexts of (3b) and (4b), this adverbial expression is more suitable (based on native speakers' judgements).

As can be seen, the durative motion verb *go* in (3a) is converted into an achievement verb by the perfectivizing directional particle *in* in (3b), in this case the direction is the perfectivizing factor. The duration of motion is interrupted when the resultant change of location is achieved. In the second set of sentences, it appears that *up* may add both telic and atelic readings to the verb depending on the context, the durative motion verb *walk* involving directional *up*, is compatible with both ‘*in X time*’ and ‘*for X time*’ adverbials thus yielding a telic reading in (4b) bringing about the change of location and an atelic reading in (4c), where a particle(s) that denote(s) a direction do(es) not specify the end-boundary, rather due to the use of particles, the sentence receives a reading which involves repetitions and backtracking.

From these examples, it is obvious that telicity is a complex notion. There are many factors to be taken into account when constructing the telicity of the verb (phrase). The most important is that the type of verb itself matters. Depending on the type of verb, i.e. an internal feature of the verb, which represents the intrinsic semantic properties of the verb and the properties of the object (if any) and the particle, a verb phrase can be interpreted as telic or atelic.

Dowty’s subclasses (6) and (7) list absolute transitive verbs and transitive verbs of movement. Particles seem to be prone to combine with the verbs of these classes changing the verb argument (the acceptability of the sentences below is based on native speakers’ judgements besides the conventionalities of the language). Let us consider the following examples:

- (5) a. *John smoked a cigar for hours/ the whole evening/ in an hour.*  
       b. *John smoked up a cigar \*for hours/ \*the whole evening/ in an hour.*
  
- (6) a. *The police hunted the criminal for several days / in a couple of days.*  
       b. *The police hunted down the criminal \*for several days /in a couple of days.*
  
- (7) a. *Mary ate the soup for an hour / in an hour.*  
       b. *Mary ate up the soup \*for an hour/ in an hour.*
  
- (8) a. *Julia packed the suitcase for an hour /in an hour.*  
       b. *Julia packed up the suitcase \*for an hour/ in an hour.*
  
- (9) a. *The house burned for hours/ \*in an hour.*

b. *The house burned down \*for an hour / in an hour.*

(10) a. *John parsed the text for an hour / in two hours.*

b. *John parsed the text out in an hour/ \*for an hour.*

In the subset of sentences (5) through (10) we can clearly see that the durative activity verbs in (a) are converted into accomplishments by the particles *up* and *down* in (b). These particles are used without the reference to upward or downward direction. Rather, the meaning of the particle *up* in the sentences above is ‘completely’. The particle *down*, however, has a number of additional meanings besides the basic aspectual meaning of goal. Thus, while *down* in (6b) simply indicates that the goal of the action is attained, the action is completed, in (9b) the particle contributes to the destructive point of view, besides the endpoint (this meaning of the particle is emphasized by Live (1965: 436)). The examples (5a), (6a), (7a), (8a) and (10a) also show that the verb predicates used without a particle can have both telic and atelic readings, while in the corresponding (b) examples, when the particle is added the atelic reading disappears.

Apart from Filip (2005), Dowty (1979: 60, 1991: 571) and Jackendoff (1996, cited in Filip 2005: 99) also mention that the transitive atelic verbs of subclass (7) such as *drive*, *carry*, *push* can be turned into perfective events by the Incremental Themes. We assume that the directional particles can equally perform this function and perfectivize the events. In fact, directional particles with these verbs serve the same telicizing function as the undergoer argument which brings about the change of state contributing to the endpoint of the event. For instance, the transitive atelic activity predicate *push the cart* can be telicized either by the addition of the argument *to the store* which undergoes an explicit change of position, in which case the path delimits the event (*push the cart to the store*),<sup>59</sup> or by any directional particle such as *out*, *in*, *up* or *down* as in *push the cart out*, where the direction telicizes the verb or verb predicates.

The next subclass of transitive verbs (subclass 8), also named “two-place phrasal verbs” often take a prepositional phrase as a modifier, e.g. *ride on a horse* or *sit on a chair*, but the class also includes activity verbs which can be turned into accomplishments by Incremental Themes (e.g. *write a letter*, *read a book*) and by the addition of the particles. In

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<sup>59</sup> Filip (2005: 99) refers to this as “the location of the moving entity on the structured path”.

the following example we will examine the effect of the quantization properties of the object and the particle on the verb. Consider the following sentences:

- (11) a. *Sylvia wrote two pages of her essay in four hours/ ?for four hours.*<sup>60</sup>  
b. *Sylvia wrote essay \*in four hours/ for four hours.*  
c. *Sylvia wrote down two pages of her essay in four hours/ \*for four hours.*  
d. *Sylvia wrote down essay \*in four hours/ for four hours.*

From the examples, it is clear that only the quantized object can turn the activity verb *write* into an accomplishment verb (11a), a mass or unspecified argument does not lead to telicity (11b). The telicity in (11c) is forced not only by the quantized object but by the aspectual particle *down* as well. However, if the object is unspecified, even the aspectual particle cannot convert an activity verb into an accomplishment (11d).

It is important to mention that the assumedly telic aspectual particles *up* and *down* do not telicize activity events in a couple of cases. Consider the following examples:

- (12) a. *John cleaned his room for a minute/ in a minute.*  
b. *John cleaned his room up a bit, before going out.*  
c. *John cleaned his room up for ten minutes/ in five minutes.*
- (13) a. *John wiped the table for a minute/ in a minute.*  
b. *John wiped the table down a little, before painting on it.*  
c. *John wiped the table down for a minute / in a minute.*

As is seen from the examples above, while the activity verbs *clean his room* and *wipe the table* can have both telic and atelic readings as in (12a) and (13a), the activity verbs are modified not only by the particles *up* and *down*, but also by the degree adverbials such as *a bit* and *a little*, respectively in (12b) and (13b). Moreover, the verbs with *up* and *down* are compatible with both ‘for X time’ and ‘in X time’ adverbial phrases. Thus the use of degree adverbials and the ‘for X time’ test, which show atelicity, provide evidence against the telicizing function of the particles *up* and *down*. In these cases, both particles function as ‘zero-telic’ particles; as Capelle (2005: 4-6, a handout from a workshop on aspect) remarks,

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<sup>60</sup> Note that *for X time* reading is possible with (11a) if the sentence refers to repetitions.

particles denote a change of state with activity verbs, but this state may be gradable “to a higher or lesser degree” in some verbs. This gradation can be felt in the case of the particle *up* with the following semantic verb classes which have been proved to be fully productive in Section 5.2.2.2:

1. verbs of cooking (*cook, cut, chop, grind, slice, mash, mix, mush, scramble, shake, stir, etc.*)
2. verbs of heating (*fry, grill, heat, warm, etc.*)
3. verbs of cleaning (*clean, grease, polish, shine, wash, wipe, etc.*)
4. verbs of locking, fastening and repairing (*bandage, bind, close, glue, lock, tape, tie, wrap, fix, sew, weld, etc.*)

However, the particle *up* adds the meaning of ‘full consumption’ to consumption verbs (*drink, eat, smoke, use, guzzle, chomp, sip, etc.*), thus producing only a telic reading. Compare (the acceptability of the examples is underpinned by native speakers):

- (14) a. *Grill the lamb up a bit more before serving it.*  
 b. *\*Drink the beer up a bit more before the dinner.*

Similarly, the particle *down* may produce telic and atelic reading with verbs of cleaning (*brush down, clean down, dust down, hose down, slick down, sponge down, etc.*) and some activity verbs to which it adds the meaning of ‘the decrease in size and intensity’ (*scale NP down, play NP down, burn NP down, weigh NP down, slow (NP) down, tone NP down, etc.*). But, again as with *up*, *down* can have only a telic reading with verbs of consumption, denoting full consumption of something to be eaten or drunk (*drink down, gobble down, choke down, swallow down, etc.*) and verbs of writing and recording (*write NP down, copy NP down, draw NP down, jot NP down, mark NP down, etc.*) (cf. Section 5.2.2.3). Again, in these cases when the particle contributes to ‘the gradable state’, it is zero-telic, and in the case of ‘non-gradable state’ it is purely telic. Consider (the examples are compiled by the author of this dissertation):

- (15) a. *I need to slow down **a bit** after these exhausting months.* (gradable state)  
 b. *\*I wrote my ideas down **a bit** before going to bed.* (non-gradable state)

Activity predicates of subclasses (9), (10) and (11) cannot be telicized since being either stative verbs or ‘aspectual’ complement verbs they do not take telicizing particles.

The analysis above results in the following picture. It is clear that both the particle and the object of the verb are used to telicize events expressed by the activity verb. We have seen that the event is systematically interpreted as atelic when the argument is non-quantized, in these cases even the addition of the particle cannot reverse the situation. Directional particles, similar to truly aspectual particles, can telicize events denoted by motion verbs. However, the event can also have an atelic reading depending on the context. Finally, in the cases of verbs like *eat* and *drink*, often referred to as consumption verbs in the literature (cf. McIntyre 2004), the use of particle changes an atelic event into telic, the particle verb denotes an event that includes the inherent goal or endpoint of the total consumption of the thing to be eaten or drunk. In these cases the object has to be quantized as well.

The present analysis is based on the conventional usage of the language. It should be mentioned that there are (may be) many exceptions and deviations in terms of telicity expressed by a single verb, object quantization and the particle. The exceptions in the (a)telicity readings of the expressions are frequently attributed to a conversational implicature of the communities using the language.

### 7.2.2 Telicity marking in Hungarian. Comparison of Hungarian and English

It is interesting to compare English and Hungarian for several reasons. English verb particle constructions are said to have parallels in the Hungarian language – verbal prefixation (coverbs). Coverbs (prefixes that can be attached to and subsequently separated from verbs) in Hungarian are thought to have the same effects (or at least very close similarity) on the VP as the particles in English. However, while English typically signals telicity through functional morphology added to the object, Hungarian does the same adding a great number of perfective coverbs to the verbal root, besides quantizing the object. The issue of the relationship between telicity and perfective particles will be discussed in this section.

The compositional marking of telicity in Hungarian with a specific coverb on the verbal form is more explicit than it is in English with a post-verbal particle. Hungarian verbal forms exist in imperfective and perfective forms, where the imperfective form is most often atelic (e.g. *levelet ír* ‘write a letter’, *süteményt eszik* ‘eat cake’), while the perfective form is normally telic (*megírja a levelet* ‘write the letter’, *megeszi a süteményt* ‘eat the cake’) (É. Kiss 1987, Szili 1999, Kiefer 1992, among others). As Szili (1999: 13) points out, in Hungarian the coverb must be regarded as the grammatical marker of perfectivity. The coverb is the element which inherently delimits the event. There are a great number of perfectivizing coverbs in

Hungarian, each combining idiosyncratic lexical meaning(s) with the basic telicity meaning, as in *ír* ‘write, be writing’– *megír* ‘write’. Each verb selects for a number of coverbs, with subsequent changes in lexical meaning, cf. Szili’s (1996) examples (16c-j).<sup>61</sup>

- (16) a. *ír* ‘write’  
 b. *megír* ‘write’  
 c. *kiír* ‘write out’  
 d. *átír* ‘write smth over, rewrite’  
 e. *felír* ‘prescribe’  
 f. *összeír* ‘draw up’  
 g. *leír* ‘write down’  
 h. *aláír* ‘sign’  
 i. *elír* ‘miswrite, misspell’  
 j. *beír* ‘write in’

In the examples above, the form in (16a) is the simplex, imperfective form. The addition of the coverb *meg-* contributes an inherent endpoint to the event of writing and makes the verb perfective. In this example, we can classify *meg-* as a purely telic marker, without any additional idiosyncratic meaning, because all it adds to the verbal meaning is a potential endpoint. In (16c-j), however, we have the coverbs *ki-*, *át-*, *fel-*, *össze-*, *le-*, *alá-*, *el-*, *be-*, which add lexical meanings of their own to the verbal root meaning, beyond signalling telicity. For instance, *fel-* and *alá-* change the verbal meaning from ‘write’ to ‘prescribe’ and ‘sign’, respectively, *ki-*, *be-*, and *össze-* add the meaning of finishing off something that had begun, while *el-* very often adds the meaning ‘to do something in a wrong way’ to the verbal stem. *Át-* is similar to the English prefix *re-*, as in *re-read*. In this sense, perfective coverbs can be viewed as derivational morphemes. What is important to emphasize here is that in the imperfective-perfective opposition it is not a simplex verb and a perfective verb with a coverb, formed with the help of one of the coverbs above, that are in a close opposition, but the verbal phrases which are compatible with each other (Szili 1994: 140). Thus we have the following:

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<sup>61</sup> The analysis in the present section reflects the ideas of the author of this dissertation.



- (17) a. *vki olvas vmit* ‘smb reads, is reading smth’: *vki elolvas /kiolvas vmit* ‘smb finishes reading the book’
- b. *vki olvas vmit vkinek* ‘smb reads smth to smb’: *vki felolvas vmit vkinek* ‘smb reads smth aloud to another person’
- c. *vki olvas vmit vmiről* ‘smb reads smth about smth’: *vki leolvas vmit vmiről* ‘smb reads smth from smth’
- d. *vki újból olvas vmit* ‘smb reads smth again’: *vki átolvas vmit* ‘smb reads something through’

The arguments above are important, because in Hungarian the distinguishing marker of perfectivity is delimitedness, i.e. the attainment of the endpoint denoted by the verb and the resultant change of state. The perfective verbs with coverbs in Hungarian require an argument structure which consists of the highly transitive verb taking in the majority of cases definite article objects (Szili 2000: 365). Thus, the sentence is ungrammatical if a perfective verb with coverb is used without an object or the object is used without an article. Consider:

- (18) a. *Mari megfőzte az ebédet.*  
*Mary cooked the dinner’.*
- b. *\*Mari megfőzte.*  
*‘Mary cooked’.*
- c. *\*Mari megfőzte ebédet.*  
*‘Mary cooked dinner’.*
- d. *\*Mari megfőzött egy ebédet.*  
*‘Mary cooked one dinner’.*

Taking the abovesaid into consideration, the following conclusion can be drawn. In Hungarian, the perfectivity (telicity) value of the VP depends on the presence of two important factors: (i) definite nominal argument, rarely indefinite nominal argument which serves to delimit the situation (this is parallel to the English object’s quantization); (ii) the perfectivizing coverb contributing to the attainment of the new state.<sup>62</sup> But, as É. Kiss (2006)

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<sup>62</sup> The relationship between telicity and perfectivity is far from straightforward. It is especially evident in the Slavic languages, where it is not the case that all imperfective verbs are interpreted as atelic, neither it is the case that all perfective verbs are telic (cf. Borik 2002). Strictly speaking perfectivity cannot be completely equated with telicity. However, most perfective prefixes and telicity markers across the languages of the world have the same meaning: potential endpoint of the event. In this paper we will not make the distinction between the notions

emphasizes, though adjective phrases or noun phrases have an important role in telicity marking in Hungarian, still the role of the coverb which adds little or no descriptive content in many cases is more important than that of the object.

Similar to English, in Hungarian there are also two types of telicizing coverbs: the coverbs that mark telicity on the verb describing an inherently delimited change of state, by denoting the resultant state of the individual undergoing the change (these are named as “resultative particles”, cf. É. Kiss 2006: 18), and those that mark telicity describing an inherently delimited change of location, by denoting the end location of the moving individual (cf. “terminative particles” É. Kiss 2006: 18). (There is also another class of particles in Hungarian, named as “locative particles” by É. Kiss, but as they are insensitive to the telicity marking of the verbs, they will be left out of discussion in the present paper).

In the following, we will compare whether the verbs with coverbs in Hungarian that mark telicity have corresponding particle verbs in English.

Similar to the examples in (16), in Hungarian we can find the following perfective pairs of the above mentioned activity verb *olvas* ‘read’:

- (19) a. *olvas* ‘smb reads’  
 b. *felolvas* ‘smb reads smth aloud’  
 c. *leolvas* ‘smb reads smth from somewhere’  
 d. *hozzáolvas* ‘smb reads in addition’  
 e. *átolvas* ‘smb reads smth through or again’  
 f. *beolvas* ‘smb reads smth into a microphone, announces smth’, idiom. ‘tells smb off’  
 g. *kiolvas* ‘smb reads [a book] through’  
 h. *elolvas* ‘smb reads smth through/ over’

In the examples above, we can see that the activity verb *read* can be turned into perfective by at least seven coverbs that mark telicity on the verb stem by describing delimited change of state. The activity of reading, for example, *a book* is completed in (19g) and (19h), here the coverbs *ki-* and *el-* serve as purely telic markers, which add the notion of endpoint to the verbal root. It is obvious that these coverbs in the given examples are used not in the directional sense which is discernible only with motion verbs or action verbs implying

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of telicity and perfectivity. Following É. Kiss (2006: 41), we claim that the verbs are telic because they describe an inherently delimited change, and they are perfective because they represent an event with its initial point and its endpoint included.

motion. In English, the corresponding particle of *ki-* and *el-* in the given context is *through*, which has the same function in English as the Hungarian *ki-* and *el-*. In the examples (19b-f), the coverbs *fel-*, *le-*, *hozzá-*, *át-* and *be-*, add lexical meaning of their own to the verbal root, in addition to marking telicity. Thus, in *felolvas* we have the resultant state of smb's reading something aloud, or in *leolvas* the telic change-of-state is attained by someone's reading of something from somewhere, e.g. some appliance, as in *leolvasta a gázórát* 'smb read the gas meter'. Similarly, *át-* and *be-* in e.g., *átolvasta a levelet* '(s)he read the letter over/ again' and *beolvasta a közleményt* '(s)he announced the statement', also add the meaning of completion to the simplex verb, these coverbs refer to the resultant state stemming from the process specified by the verb. None of the mentioned Hungarian coverbs such as *fel-*, *le-*, *hozzá-*, *át-*, *be-* have corresponding pairs among the English particles. In English, as can be seen above, the corresponding readings can be expressed only by a simplex verb in the past form followed either by a noun phrase or some adverb phrase. In many cases, even the basic verb form changes (e.g. *olvasta a híreket* 'she **read** the news' – *beolvasta a híreket* 'she **announced** the news'). Thus we can see that telicity marking by the Hungarian coverbs is clearer and more systematic than that by the English particles.

Let us examine another example of the activity verb *épít* 'build'. The verb again can be perfectivized by at least seven coverbs:

- (20) a. *épít* 'build'  
 b. *megépít* 'build'  
 c. *felépít* 'build'  
 d. *kiépít* 'build up, extend'  
 e. *beépít* 'build up/in'  
 f. *átépít* 'rebuild, build smth over'  
 g. *ráépít* 'build smth on the top of smth'  
 h. *leépít* 'lay smb off' (usually of headcount)<sup>63</sup>

From these examples it can be seen that the coverbs *meg-* and *fel-* are truly perfectivizing coverbs, which do not add any additional meaning except for an inherent endpoint to the event of building. These coverbs do not have corresponding counterparts in English, here the

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<sup>63</sup> This verb is idiomatic, in this case the resultant coverb *le-* is not lexicalised separately from the base verb *épít*. Idiomatic cases are not discussed in this dissertation.

perfective event of building is expressed by a simple verb form. In fact, among seven perfectivizing coverbs in Hungarian, we can find only one instance in which the Hungarian coverb would have a counterpart in English. This is the case of the Hungarian coverb *be-* as in *beépít* and the corresponding *in* in English as in *build in*. In this case, however, there is a slight connection of the particle meaning to that of direction, therefore contrasting is possible. Again in (20d), the addition of the coverb *ki-* to the verb, which has nothing to do with direction, changes the verbal meaning in English from *build* to *extend* and no corresponding particle is used in English. *Át-* is akin in function to the English prefix *re-* as seen in *rebuild*. In (20g), the coverb *rá-* adds a special lexical meaning ‘on the top of’ to the verbal root meaning, over and above telicity meaning. In English, only the simple verb followed by a noun object and a prepositional phrase can properly render the meaning of this Hungarian verb with coverb. Consequently, *ráépített egy emeletet a házra* can be rendered as (s)he *built/added another floor to the house*. And, finally, *le-* is idiomatic leading to a complete change of the basic meaning of the verb in English as in (20h).

The analyzed examples clearly show that telicity marking in Hungarian by the perfectivizing coverbs is much clearer than that in English. Although the verbal predicate telicity value in English depends both on the presence or absence of a telicizing particle and object quantization, the often restricted use of particles suggests that the power of telicity marking by a quantized object in English is stronger than in Hungarian, where a coverb’s role is more dominant.

Since activity verb or activity predicate is turned into accomplishment by the addition of a verbal particle, or coverb in Hungarian, as was shown above, there is no need to examine the class of accomplishment verbs separately. As Bolinger (1971) points out, verb-particle constructions are almost invariably accomplishment verbs and the particle indicates unambiguously that an accomplishment is intended (cf. *clean the room* vs. *clean the room up*, *push the cart* vs. *push the cart out*). The next section examines the class of achievement verbs and the possibility of telicity marking in both English and Hungarian.

### 7.3 Achievement verbs and telicity in English and Hungarian

Achievement verbs present a very disputable class of events in English. Though it is known that typical achievements are instantaneous events that result in a change of state, yet their puzzling aspectual behaviour stems from the fact that the class of achievements includes some verbs which display both telic and atelic properties (the subclass of “degree achievements”, Dowty 1979) and show full consistency with a ‘*for X time*’ adverbial, the standard test for atelicity. But typical achievement verbs are inherently telic verbs, they denote punctual events and, in contrast to stative and activity verbs, they do have an endpoint. Though there are some counterarguments in the literature<sup>64</sup> as to whether degree achievements belong to the class of achievement verbs, these counterarguments have not been underpinned sufficiently so far. Thus, below we will analyse degree achievements as event types belonging to one of the subclasses of achievement verbs.

Let us now see the subclasses of the class of achievement verbs established by Dowty (1979: 68):

- I. Locatives
  1. Transitive verbs: *reach, leave, touch* NP
  2. Two-place phrasal verbs: *arrive at, land on, depart from, fall from* NP
- II. Change of Physical State (Absolute states)
  1. Intransitives: *melt, freeze, die, be born* (pseudo-passive), *molt, ignite, explode, collapse*
  2. Two-place phrasal: *turn into a* NOUN, *turn to* NOUN, *become* ADJ
- III. Change of Physical State (Degree state)
  1. Intransitive: *darken, warm, cool, sink, improve*
  2. Phrasal: *become* ADJ-er
- IV. ‘Aspectual’ Complement Verbs
  1. Infinitive complement: *begin, start, cease*
  2. Gerundive Complement: *stop, resume, begin, start*
  3. With event nominal as subject: *end, stop, resume, start, begin*
- V. Possessive: *acquire, receive, get, lose, win*

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<sup>64</sup> Dowty (1979) claims that “degree achievements” denote changes of state and they pattern with achievements on some semantic and syntactic grounds; whereas Hay, Kennedy, and Levin (1999) claim that there is little evidence that degree achievements are achievements at all. They argue that degree achievements variably display characteristics of accomplishments and activities.

VI. Cognitive (many both achievements and states)

1. Physical perception: *notice, spot, see, catch sight of, hear, taste, smell, feel, lose sight of*
2. Abstract cognitive: *realize, recognize, understand, detect, find* (also accomplishment), *remember, forget*

VII. Change of State of Consciousness: *awaken, fall asleep*

Since achievement verbs are inherently telic events, the question arises as to what may be (if any at all) the aspectual impact of the telic particle on achievement verbs which name punctual events. In this paper, we claim that achievement verbs introduce an event which when expressed by a verb without a particle denotes a change of the state of the object and with the particle this change is led to an end state. In fact, the function of the particle, which is used quite rarely with achievement verbs, is only to emphasize the end state of the telic event (cf. also Section 6.5). Let us analyse now how achievements can interact with certain particles.

The members of the first class of locatives, which include transitive verbs such as *reach, leave*, etc. and two-place phrasal verbs *arrive at, land on*, etc. while denoting changes of state, usually focus on the outcome of a chain of events, e.g. *reach the top of the mountain* or *leave the house*, in the case of prepositional verbs *arrive in Boston* or *depart from the station*. The resultant state in these cases is the Path-Goal result (cf. Smith 1997). Consider the effect of the particles on the punctual verbs:

- (21) a. *Mary reached the top of the mountain in an hour.*  
b. *\*Mary reached out /up the top of the mountain in an hour.*
- (22) a. *John arrived in Boston at 3 o'clock.*  
b. *\*John arrived in /up in Boston at 3 o'clock.*

The examples clearly show the Path-Goal result in (21a) and (22a) is achieved by simplex verbs followed by an object or some noun phrase, thus the addition of any telicizing particle in (21b) and (22b) is not simply redundant but incompatible with these punctual verbs. Though the punctual verb *reach* without an object can combine with the particle *out*, the meaning is in most cases metaphorical, e.g. ‘attempt to communicate’ as in *Government reaches out to the people* (the example is from the *Free Online Dictionary*).

Let us now examine the class of Change of Physical State (class II). Dowty (1979: 68) distinguishes between absolute states and degree states (often referred to as degree achievements) in this group. Consider the following sentences (compiled by the author of this dissertation):

- (23) a. *The soup cooled for an hour/ in an hour.*  
       b. *The soup cooled down for an hour / in an hour.*
  
- (24) a. *The earth warmed for hours/ in three hours.*  
       b. *The earth warmed up for a few hours/ in an hour.*
  
- (25) a. *The metal melted slowly/ for hours/ in an hour.*  
       b. *The metal melted down for hours / in an hour.*
  
- (26) a. *All my plants died while I was away.*  
       b. *All my plants died out for about six months / (with)in six months.* (because of a catastrophe)
  
- (27) a. *John froze the bowl of water for two hours/ in two hours.* (by leaving it in the snow)<sup>65</sup>  
       b. *John froze the bowl of water up \*for two hours/ in two hours.*
  
- (28) a. *Susan brightened her living room for two minutes/ in two minutes.*  
       b. *Susan brightened up her living room for two minutes/ in two minutes.*

As can be seen from the examples above, most Dowty's (1979) achievements denoting absolute states and degree states (cf. the classification above) can appear with both *for*-adverbials and *in*-adverbials, moreover, the addition of the particle in the (b) sentences does not seem to have any effect on the verbs in terms of telicity. The variable aspectual behaviour of degree achievements is perhaps due to the gradable properties of the verbs. Many combinations with *up* and *down*, as shown above, refer to an increase or decrease on an open-

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<sup>65</sup> Though in Dowty's classification the verb *freeze* is intransitive, many scholars (cf. Capelle (2005), Hay, Kennedy, and Levin (1999)) allow the transitive function of degree achievements as well.

ended scale (cf. Lipka's (1972: 220-221) combinations with *up* belonging to 'improve' or 'increase' classes, or Sinclair's (1991: 460) combinations with *down* belonging to 'decrease or lowering in degree' classes).<sup>66</sup> For example, if one says *the soup cooled down a bit*, the interpretation you invite is that the soup moved down on a scale from boiling hot to less hot; but it may very well be the case that the soup is still too hot to eat, i.e. it is at the hot pole of the scale. In such cases, particles function as zero-telic particles and the verb particle combinations are compatible with both a telic and an atelic readings.

Verbs of the class (IV) function as aspectualizers, they are used to complement activity verbs or accomplishment verbs (e.g. *the cinema began filling up*), thus most of them are not compatible with the particles.<sup>67</sup>

The verbs of the Possessive class (class V) denote instantaneous events like *acquire a book* or *receive a present*, but there are several verbs in this class that allow or require preliminary stages. They may be conventionally necessary, e.g. in *win* or *lose a race*, the events have a preliminary stage of running the race. Similarly to the previous classes, particles are incompatible with the members of this class, e.g. *\*wint in/up/down*, *\*lose up/down* NP. Yet in some cases, particles can occur with achievement verbs. Consider the following authentic sentences from <http://www.americanacorp.org/>:

- (29) a. *The Trojans are hoping their experienced lineup will **win out** over the Longhorns' youth (your freshman starters).* (Denver Post, March 18 2007, Sports,

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<sup>66</sup> Degrees themselves are formalized as positive or negative intervals on a scale (Kennedy 1997, among others) where a scale is a set of points totally ordered along some dimensions (e.g. Temperature, Brightness, Length, Volume, etc.). The lexical meaning of a degree achievement includes a specification of the amount to which some object increases (or decreases) in the degree to which it possesses some gradable property (Hay, Kennedy and Levin 1999). Conversational implicature plays an important role in generating telic interpretation of degree achievements and provides an explanation for the adverb duality fact. The telic interpretation of a degree achievement arises when there is some salient bound, e.g. a salient degree, namely room temperature. The durative adverbial has the effect of cancelling the telicity implicature, in this case the atelic interpretation arises leading to the object's increase or decrease to some unspecified degree.

<sup>67</sup> Some verbs of this subclass can occur with the particles and the combinations have compositional meanings. Consider the following examples in which the particle emphasizes the inchoative (inchoative) meaning (cf. Celce-Murcia and Larsen-Freeman 1999: 432): *He started out by introducing himself* / *She started out at a slow jog* ('begin in a specified way'), or *She started out in the early morning* ('begin something, for example your day or travel'). The verb *start* can also combine with the particle *up* and the meaning of the combination is compositional as well. Thus, in *The car/engine won't start up*, the particle *up* again emphasizes the inchoative meaning. Other verbs such as *stop* and *end* may also combine with the particles, but the meaning of the combinations is idiomatic. Consider: *He doesn't normally stop out late* ('to stay out at night') or *I am stopping in tonight* ('to stay at home'); *She ended up rich* ('to reach or come to a place or condition not planned or expected'). (source: <http://www.learnersdictionary.com/search>)



- b. *Ten million middle-income households have **lost out** because of Gordon Brown's repeated tax rises.*

(<http://www.telegraph.co.uk/Budget-2010-10m-families-have-lost-out-in-Labours-tax-changes.html>)

- c. *Tomorrow, at the invitation of House minority leader Dick Gephardt, the First Lady will **meet up** here with the House Democratic Caucus.*

(ABC\_Nightline, Impeachment, December 18 1998)

In fact, *lose out* and *win out* are achievements similarly to *lose* and *win*, the function of the particle *out* with the verbs is to emphasize achievements or the punctual nature of the verbs, beyond the syntactic function of changing transitive verbs into intransitive. The emphatic function of *up* is also obvious in (29c), *meet up* is an achievement verb similar to *meet*.

Neither the Cognitive verbs nor those belonging to the class of Change of State of Consciousness can take aspectual particles since these verbs are stative and do not involve change of state (these are punctual verbs with a subsequent state but without any preceding process).

Turning to Hungarian now, we will see that the telicity marking of achievement verbs is quite different from English. While in English a subset of simple verbs can introduce telicity via their lexical specification, in Hungarian telicity can only arise if a coverb or a noun phrase is also present. Consider the following sentences (these examples come from É. Kiss 2006: 20):

- (30) a. *Feri **meg**-találta a kulcsot.*

*'Feri (has) found the key'.*

- b. *Kati **fel**-ébredt*

*'Kati woke up/ has woken up'.*

- c. *Zoltán **el**-érte a csúcsot.*

*'Zoltán reached the top'.*

- d. *A gép le-szállt Ferihegyen.*  
'A plane landed at Ferihegy'.

As É. Kiss (2006: 20) mentions, the verbs *talál* 'find', *ébred* 'wake', *ér* 'reach' and *száll* 'land' denote momentary changes affecting the theme, and the coverbs *meg-*, *fel-* 'up', *el-* 'off' and *le-* 'down' refer to the resultant states of the theme. ((30c) seems more idiosyncratic; the result state meaning component of *el-ér* 'reach' cannot be lexicalized separately). The removal of the coverb from an achievement predicate usually does not yield an acceptable sentence expressing a momentary process:

- (31) a. *\*Feri találta a kulcsot.*<sup>68</sup>  
'Feri found the key'.
- b. *\*Kati ébredt.*  
'Kati woke'.
- c. *\*Zoltán érte a csúcsot.*  
'Zoltán reached the top'.
- d. *\*A gép szállt Ferihegyen.*  
'A plane landed at Ferihegy'.

Let us consider some more examples with achievement verbs like *nyer* 'win', *győz* 'win' and *veszít* 'lose'. These verbs are optionally transitive and take coverbs only in their transitive use. Consider:

- (32) *Péter nyert/győzött/vesztett.*  
*Peter won/won/lost.*

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<sup>68</sup> É. Kiss (2006: 21) points out that some of the sentences in (31) can be grammatical if they contain a focus as in *FERI találta a kulcsot* 'It was Feri who found the key'.

- (33) a. *Péter megnyerte a játékot.*  
           ‘Peter won the game’.
- b. *Péter legyőzte Marit.*  
           ‘Peter defeated Mari’.
- c. *Péter elvesztette a játékot.*  
           ‘Peter lost the game’.

As is seen from the examples above, the intransitive verbs with an agent argument can only be telicized if they are supplied with both a pseudo-object and a resultative element, i.e. a coverb (É. Kiss 2006: 26).

Now let us examine some degree achievement verbs in Hungarian. As shown above, in English degree achievements show variation in the availability of telic readings and the addition of the particle does not influence the telicity of the verb (phrase), i.e. degree achievements supplemented by a particle can be either telic or atelic. However, the situation is again different in Hungarian. Consider the following sentences (compiled by the author of this dissertation):

- (34) a. *Az ing két óra alatt **meg**-száradt.*  
           ‘The shirt dried in two hours’.
- b. *Az Andor utat két hónap alatt **ki**-szélesítették a munkások.*  
           ‘The workers widened Andor Street in two months’.
- c. *A leves öt perc alatt **ki**-hűlt.*  
           ‘The soup cooled (down) in five minutes’.

It can be observed that in the case of degree achievements, a telic interpretation is available only if coverbs are present (similar to other achievement verbs). On the other hand, in the absence of a coverb, the degree achievement verb is always atelic and in this case the durative-delimitative adverbial *X óra alatt* ‘in X time’ is incompatible with atelic *száradt* ‘dried’, *szélesítették* ‘widened’, *hűlt* ‘cooled’ (e.g. *\*A leves öt perc alatt hűlt* ‘The soup was cooling (down) in five minutes’).

Above, we have shown the means by the help of which the change of state of achievement verbs can be brought about in English and Hungarian. It has appeared that in English the lexical entries of verbs encode telicity and a particle is used (though quite rarely) only to emphasize the punctual nature of the verb. In Hungarian, resultative elements, i.e. coverbs and the objects are obligatory means of marking telicity.

#### 7.4 Semelfactive verbs and telicity in English and Hungarian

Semelfactive verbs represent perhaps the least studied event class. Dowty (1979), similar to Vendler (1967) does not distinguish semelfactive verbs as a class different from Activities and, in many cases, from that of Achievements. Thus, here it seems plausible first to argue why the semelfactive class of verbs should be treated as distinct from the above-mentioned classes and, then, on the basis of their features, to establish the semantic (sub)classes of the class of semelfactive verbs.

Semelfactives are single-stage events that occur very quickly with no result or outcome (Smith 1997: 29). Smith's semelfactive punctual events imply neither preceding nor subsequent state.<sup>69</sup> They have the features [+ dynamic], [+ atelic], [+ instantaneous]. The sentence *Jane knocked at the door* is a typical example of a semelfactive event. Semelfactives are the simplest type of event, consisting only in the occurrence. Since they are single-stage events, semelfactives are intrinsically bounded. Smith (1997) uses this term for atelic instantaneous events. The semelfactive event may involve a discernible period of time. When a person coughs, or a bird flaps a wing, the events take some fraction of a second to occur. The semelfactive event indicates that there is only one 'stroke' of a normally iterative event, e.g. a single knock at the door. It indicates that a normally durative or multi-stage event occurs "all at once".

Semelfactives and activities are known to be related. Semelfactive verbs generally pattern with activity verbs in terms of grammatical properties that might have their source in event structure. Many semelfactive verbs also allow for activity interpretations when the

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<sup>69</sup> However, we disagree with Smith (1997) that none of the semelfactive punctual events may have a subsequent state. Kiefer (2006: 301) showed that in Hungarian the punctual events like *felrobban* 'explode' and *talál* 'find' induce a change of state. Following Kiefer (2006), in this study we argue that there should be at least one class of semelfactive events distinguished in English that consist in a single occurrence and yet result in a change of state and imply a subsequent state.

events they describe occur in repetitive sequences. For instance, the verb *cough* is semelfactive when it describes ‘one cough’, but an activity when it describes a sequence or series of coughs. Such sequences are multiple-event activities. Thus the sentence *Jane was knocking at the door* can refer only to an Activity event for a number of reasons: (i) the progressive is incompatible with semelfactives; however, if there is a sentence with a semelfactive verb and durative features, the sentence is not ungrammatical, but it has a shifted interpretation: it is taken as a multiple-event activity; (ii) there is not a single *knock* described by the event in the sentence above, but a series of knocks. The sentence cannot mean that Jane was engaged in the preliminary stages of giving a single knock; (iii) The multiple- event reading of the activity event can be triggered by a temporal adverbial ‘for *X time*’ as in *Jane was knocking at the door for five minutes*, or *Jane knocked for an hour*, but a true semelfactive verb does not allow for such an interpretation, i.e. semelfactive verbs are limited in distribution, they do not appear in sentences with the imperfective viewpoint, durative adverbials and different expressions of duration. However, in many instances the multiple event seems to be just as basic as the single-stage event. For instance, *blinking*, *coughing*, *knocking* tend to occur in sequences, but they can of course happen as single instantaneous events (Smith 1997: 29-30). Now let us see how semelfactive verbs differ from achievements.<sup>70</sup>

Semelfactives are punctual events which have no result state, e.g. *The lights blinked*; *Mary coughed*; *Simon tapped on the desk*; *John glimpsed at Susan*. Generally semelfactives differ from achievements in lacking a result state, and this is seen in their inability to be used as adjectival modifiers expressing a result state, e.g. *the shattered window* vs. *\*the flashed light*. In some cases, however, this condition does not hold since there should be distinguished a class of semelfactive verbs that do lead to a change of state and thus can be used as modifiers (e.g. *the exploded house*, *a broken vase*). But still in the majority of cases, it is the subject of an achievement that undergoes a change of state and cannot undergo it again, thus a different referent is required for the action to repeat, whereas the subject of a semelfactive verb does not undergo a change of state, it can repeat the action yielding an iterative reading of the activity event. Like achievements, when semelfactives are iterated they behave like activity verbs, but unlike achievements, they do not require a plural subject for an iterative

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<sup>70</sup> The discussion and analysis of the class of semelfactive events is based on the ideas of the author of this dissertation. The major theoretical background comes from Smith (1997), Olsen (1997) for English and Kiefer (2006) for Hungarian.

interpretation, e.g. *the bell is ringing* (semelfactive) vs. *\*the firecracker is popping* (cf. the firecrackers are popping) (achievement).

Adverbials that imply duration such as *quickly*, *rapidly* and *slowly* can occur with events involving temporal duration, regardless of whether they involve dynamic action. But with achievements, these adverbs indicate a relatively slow process, e.g. *John slowly realized his mistakes*; *The snow is melting slowly*; whereas these adverbials are only marginally possible with semelfactives and can only yield ingressive reading, e.g. *John slowly coughed* may mean that John was slow to cough (although the sentence may have a multiple-event reading in which the coughs followed each other at a slow rate). Moreover, adding ‘once’ to the sentence with a semelfactive verb and any of the adverbials above would render the sentence unacceptable, e.g. *\*John slowly coughed once*. But semelfactives need a delimiting mechanism and they can be intensified by some modifiers, such as *suddenly*, *instantly*, *once*, *on one occasion only*, e.g. ***Instantly*** *the girl leaped from the cart and ran away* (source: The Legends of Jenny Jump, <http://www.goes.com/hfplinfo/jennyjump.html>) and very often it is the context that helps to identify the semelfactive verb, e.g. *I felt like my throat was going to rip apart when I sneezed* (source: <http://www.steadyhealth.com> >...> Throat disorders).

On the basis of the above-mentioned facts, it is possible to conclude that semelfactive verbs represent a class distinct from both activities and achievements.

In English, we have managed to set up the following semantic (sub)classes of the class of semelfactive verbs based on their features:

1. Bodily events: *blink, cough, burp, sneeze, wink, glimpse, jump, skip, spring, jerk, fart*
2. Internal events: *flicker, flash (lights), gleam, ring, spurt, squirt, spew*
3. Punctual actions involving movement: *tap, peck, scratch, kick, hammer a nail (once), pound on the table (once), pop (the gun), hit, slap, thump, thwack, smack, clap, shake, knock*
4. Punctual verbs of perception: *cry out (in pain), call out, shout out*<sup>71</sup>
5. Punctual verbs implying a subsequent state: *explode, find, break, break in, cave in, crack, split, smash, close*

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<sup>71</sup> Note that the particle *out* in these combinations conveys the meaning of ‘openness and intensity’ which does not necessarily imply completeness (Kennedy 1920: 24).

In this study we use the term “semelfactive verb” to refer to a verb which describes a single occurrence of the event, thus there is probably only a limited number of punctual verbs in the above subclasses. There can be more verbs similar in meaning that may belong to these subclasses (e.g. *batter*, *beat*, *honk*, *buzz*, *glitter*, *glister*, *shine*, *beep*, etc.) but since the majority of these verbs denote durative events, they are basically activities. The verbs in the above subclasses differ as to whether they are basically semelfactives or both semelfactives and derived activities.<sup>72</sup> Here we claim that the countable instances of the above bodily events, internal events and actions involving movement convey the semelfactive event, while uncountable reduplication of these events conveys the corresponding derived activity.

Many of the verbs in the above subclasses often occur in repetitive sequences which take the form of progressive, e.g. *She is sneezing* refers to a series of sneezes (not a single sneeze in the process of unfolding). Let us see some more examples of how a typical point-like semelfactive event can receive a derived activity reading through repetitions (The sentences below were compiled by the author of the present study and have been subject to native speakers’ judgements on acceptability).

- (35) a. *John winked at Mary only once.*  
       b. *John is openly winking at Mary for a while because he fancies her.*
- (36) a. *John skipped down the stairs so suddenly that his mother almost choked on her coffee.*  
       b. *John was skipping down the stairs instead of walking.*

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<sup>72</sup> Although the majority of semelfactive verbs can have an iterative interpretation and be used in progressive, not all of them can. For instance, verbs of internal events like *spew*, *spurt* and *squirt*, which are usually referred to as verbs of substance emission (Levin 1993), do not admit temporal adverbials, consequently cannot get an iterative meaning and occur in repetitive sequences, e.g. \**The blood was spurting out of arteries for two hours*. Semantically these verbs code the meaning “to emit a sudden and abundant flow”. Similarly, among the verbs of the third subclass we can find momentary events that do not have iterative readings either, or can be marginally possible in progressive depending on the context; these are *pop (the gun)*, *hammer a nail* and *pound on the table*. Punctual verbs of perception such as *cry out*, *shout out* and *call out*, similarly to the punctual verbs *blink*, *cough*, *tap*, *scratch*, *sneeze*, etc., denote events which do not presuppose any preceding process and do not lead to a resultant state, but unlike these events they cannot be iterated, thus they are incompatible with progressive and durative adverbials (e.g. \**He was crying out (in pain) for two hours*). Finally, punctual verbs that imply a subsequent change (i.e. inducing a change of state), similarly to the events above, cannot be used in the progressive form and take temporal adverbials either. Consider: \**The window was smashing / smashed into pieces for ten minutes*.

- (37) a. *Suddenly, the church steeple bell rang twice.* (source: <http://www.acesmylibrary.com>, Journal of Church and State, September 22, 1999 Owen, Christopher H. )  
 b. *The church steeple bell was ringing for five minutes.*
- (38) a. *John tapped Susan on the shoulder to get her attention.*  
 b. *I felt that someone was tapping on my shoulder.*
- (39) a. *John suddenly scratched the top of his nearly-bald head in embarrassment and uttered in a high pitched voice.*  
 b. *John was scratching his head until he drew blood.*

The sentences (35a) through (39a) contain semelfactive events from the three subclasses. It can be observed that in some cases the occurrence of a semelfactive event can be identified by adverbials like *once*, *twice*, *suddenly*, and not infrequently the usage of semelfactive verbs becomes apparent from the context. The sentences denote single (countable) punctual events. While sentences (35b) through (39b) express a series of punctual events. The iterative reading of these events is imposed by temporal adverbials like *for five minutes*, *for a while*, *until X time*, and, of course, by the context. In these latter cases we have multiple-event activities or activities derived from punctual semelfactive verbs.

Since semelfactive verbs are atelic and incompatible with the concept of completion, to speak of telicity marking here is irrelevant. As can be seen from the subclasses above, semelfactives are formed via lexical entries of simple verbs excepting punctual verbs of perception which are formed with the help of the particle *out*, but the particle in these cases does not render completion. These verbs encode instantaneous atelic events which do not imply any subsequent state. Some semelfactive verbs can be modified with the help of particles when they are used as derived activities. In these cases, the verbs can be turned into accomplishments or achievements, e.g. in the following sentences *John jumped up*; *John kicked down the door*; *Susie scratched out his eyes*; *The lights blinked out for a moment*; the addition of particles to semelfactive verbs with the activity readings converts them into accomplishment verbs or achievement verbs (cf. *blink out*, a punctual verb with a preceding process of ‘blinking’ and a subsequent state of ‘blinking out’), yielding telic readings of the events. The particle in each of these examples denotes an endpoint or goal of the events.

Now let us examine semelfactive verbs in Hungarian.



Most of the English semelfactive classes of verbs have corresponding classes in Hungarian.<sup>73</sup>

1. Bodily events: *tüsszent* ‘sneeze’, *pislog* ‘blink’, *köhög* ‘cough’, *kacsint* ‘wink’, *fel(ugrik)* ‘jump’, *megpillant* ‘glimpse’, *megborzong* ‘shiver / shudder (with cold)’, *megrázkódik* ‘jerk’, *(fel)böfög* ‘burp’
2. Internal events: *(fel)villan* (a fény) ‘(the light) flashes’, *(fel)lobban* ‘flicker’, *megcsendül* ‘ring’, *kitör*, *kifröccsen* (pl. vér hirtelen, nagy mennyiségben) ‘spurt’, *(ki)lövell* (folyadék) ‘squirt’
3. Punctual actions involving movement: *megüt* ‘hit, slap’, *kopog* ‘knock’, *megcsíp* (vmt, pl. csőrrel) ‘peck’, *megkapar* ‘scratch’, *megkavar* ‘stir’, *megsimogat* ‘fondle’, *megnyom* ‘press/push’, *megcsavar* ‘screw’, *megtapsol* ‘clap’, *megráz* ‘shake’, *megvakar* ‘scratch’, *megcsókol* ‘kiss’, *megcsóvál* ‘wag’
4. Punctual verbs of perception: *feljajdul* ‘cry out (in pain)’, *felkiált* ‘shout out/ call out’, *felnevet* ‘laugh out’, *felnyög* ‘groan loudly (once)’
5. Punctual verbs implying a subsequent state: *felrobban*, *felrobbant* ‘explode’, *talál* ‘find’, *beomlik* ‘cave in’, *letör*, *letörik* ‘break (down)’, *betör* ‘break in’, *bezár* ‘close’

Similar to English, the subclasses in Hungarian contain members which are verbs that have semelfactive reading only and verbs with both semelfactive and derived activity readings. The verbs of the first subclass such as *tüsszent* ‘sneeze’, *pislog* ‘blink’, *köhög* ‘cough’, *kacsint* ‘wink’, *böfög* ‘burp’, etc. may denote single punctual events but can also express the series of punctual events. However, the situation is further complicated in Hungarian when different derivatives are formed from the same verbal root, e.g. *pislant* ‘blink’ (purely semelfactive) – *pislog* ‘blink’ (semelfactive and activity verb), *köhint* ‘cough’ (purely semelfactive) – *köhög* ‘cough’ (semelfactive and activity verb), *tüsszent* ‘sneeze’ (semelfactive and activity verb) – *tüsszög* ‘sneeze’ (semelfactive and activity verb). Purely semelfactive verbs cannot take time adverbial phrases of duration. Consider: *\*Sokáig pislantott* vs. *Sokáig pislogott* ‘S(he) blinked for a long time’. Since the Hungarian verbs have no progressive form, the occurrence of these events can be identified by means of time point adverbials (e.g. *két órakor* ‘at two o’clock’) which identify the time of the punctual event and temporal adverbials (e.g. *két órán át* ‘for X time’), denoting the length of an ongoing event (Kiefer 2009: 250). Consider the following sentences:

<sup>73</sup> The classification of semelfactive verbs in Hungarian was set up on the basis of English and with the account of the features of semelfactive verbs described by Kiefer (2006: 296–304).

- (40) a. *Két órákor kacsintott.*  
       ‘She winked at two o’clock’.  
       b. *Két órán át kacsintgatott.*  
       ‘She was winking for two hours’.

- (41) a. *Zoltán egy órákor köhögött.*  
       ‘Zoltán coughed at one o’clock’.  
       b. *Zoltán egy órán át köhögött.*  
       ‘Zoltán was coughing for an hour’.

Sentences (40a) and (41a) denote single punctual events of winking and coughing while those in (40b) and (41b) convey the iterative reading of these events. In this subclass, however, we can find verbs which are not compatible with a temporal adverbial ‘for X time’, e.g. the punctual verb *megpillant* ‘glimpse’. Compare:

- (42) a. *Zsuzsi megpillantotta Zolit négy órákor.*  
       ‘Zsuzsi glimpsed at Zoli at four o’clock’.  
       b. *\*Zsuzsi négy órán át megpillantotta Zolit.*  
       ‘\*Zsuzsi glimpsed at Zoli for four hours’.

As can be observed, the punctual verb *megpillant* ‘glimpse’ is not compatible with a temporal adverbial of duration, thus it cannot be iterated. This semelfactive verb does not receive an activity reading.

Most of the verbs of the second subclass behave as true semelfactive events. Consider:

- (43) a. *A harang halkan megcsendült négy órákor.*  
       ‘The bell rang quietly at four o’clock’.  
       b. *\*A harang halkan megcsendült két órán át.*  
       ‘The bell rang quietly for two hours’.

The verb *megcsendül* ‘ring’ in Hungarian is not compatible with temporal adverbials and cannot get an iterative meaning either.

All semelfactive verbs (with the exception of *kopog* ‘knock’) in the third subclass are formed compositionally – the perfectivizing coverb *meg-* is added to activity verbs.<sup>74</sup> The punctual reading, which is brought about by the coverb *meg-* in Hungarian, is rendered into English by the simple verb and the adverb ‘once’. Consider the following examples:

- (44) a. *Zsuzsi megkavarta a levest öt órákor.*  
           ‘Zsuzsi stirred the soup at five o’clock’.  
       b. *\*Zsuzsi megkavarta a levest öt órán át.*  
           ‘Zsuzsi stirred the soup for five hours’.

In English, the above semelfactive reading is expressed by the simple past form of a verb. Consider:

- (45) *Susan stirred the soup once (at five o’clock).*

Again, the incompatibility of the verb with the durative adverbial in Hungarian implies that it cannot get an activity reading (like any other verb of this subclass).

The verbs of the fourth subclass, similar to the above subclasses, are punctual verbs and are compatible only with a time point adverbial, thus do not get an iterative meaning (e.g. *Négy órákor felkiáltott* ‘She shouted out at four o’clock’, but *\*Négy órán át felkiáltott* ‘\*She shouted out for four hours’).

Finally, the fifth subclass of verbs differs from the previous semelfactive verbal subclasses in that while the verbs of the first four subclasses do not presuppose a preceding state and do not imply a subsequent state, the verbs of the last subclass are all punctual events with a subsequent state. These verbs are also incompatible with a temporal adverbial of duration, e.g. *\*A híd órákon át felrobbant* ‘\*The bridge exploded for hours’.<sup>75</sup>

As can be seen from the analysis above, in English more semelfactive verbs can receive both a semelfactive and a derived activity reading than in Hungarian. This is perhaps

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<sup>74</sup> Note that Semelfactive Aktionsart is also formed this way in Hungarian.

<sup>75</sup> Kiefer (2006: 301) mentions that most of Dowty’s (1979) tests used to distinguish achievements apply well in the case of *felrobban* ‘explode’ and *talál* ‘find’ verbs excepting the test with the time adverbial *alatt* ‘in X time’. However, the phrase *X idő alatt felrobban* ‘explode in X time’ refers to the time until the onset of the event and not to the temporal duration of the event itself; the same holds for the expression *egy nap alatt talál vmit* ‘find smth in a day’. The verbs mentioned thus have to be distinguished from typical achievement verbs.

due to the fact that in Hungarian the majority of semelfactive verbs are formed compositionally, with the help of the perfectivizing coverb *meg-*, in which case the iterative (activity) meaning disappears. Semelfactive verbs in English, which introduce punctual events lexically, cannot take perfectivizing verbal particles, but can be used in progressive and can express a series of punctual events when function as multiple-event activities.

## 7.5 Summary of event structure, particles and coverbs

In the present chapter we have examined the aspectual impact of perfectivizing verbal particles and coverbs on the event-structural make-up of the event in English and Hungarian, in particular we have attempted to show how the English verbal particle and a Hungarian coverb may alter the telicity value of the verb or verbal predicate in different event classes in both languages. The analysis carried out in this study allows us to draw the following conclusions:

1. Particles normally cannot act as telicizers with the event class of stative verbs since states represent non-dynamic situations, they have no internal structure and do not result in a change of state. Exceptions are: (i) the subclass of locatives, i.e. verbs expressing the position of a human body (e.g. *sit, stand, lie, rest*, etc.), which (or at least some of them) can occur with the perfectivizing particles and coverbs due to their neutral character both in English and Hungarian (e.g. *sit down/ leül, stand up/ feláll, lie down/ lefekszik*). The durative stative verbs are converted into the perfective aspect events by means of perfectivizing particles such as *up* and *down* in English, and similarly *fel-* ‘up’ and *le-* ‘down’ coverbs in Hungarian. The particles bring about a change of state in the sense that the verb particle combinations denote the beginning of a state, but they can never denote the termination of a state; (ii) the subclass of the verbs of cognition – emotional and intellectual, e.g. *know, like, love, regret*, etc. In English, the members of this subclass do not occur with perfectivizing particles; in Hungarian, however, the perfectivizing coverb *meg-* with the base verbs of emotion, perception and cognition expresses a process or an instantaneous change in emotional, perceptual and cognitive state (e.g. *megszeret* ‘come to love’, *meghall* ‘come to hear’, *megtud* ‘come to know’).
2. Telicizing particles occur with the event class of activity verb predicates. In English, telicizing particles bring about a change of state or a change of location of the event and

convert the atelic activity verbs either into telic accomplishments or achievements, expressing the inherent goal or endpoint of the event. Besides the telicizing particle, a quantized object is another obligatory means of marking telicity in English. In many cases though, the use of a simple verb and an object quantization alone can change the telicity value of the verbal predicates. In Hungarian, both the telicizing coverb and the object quantization are obligatory means of marking telicity. As has been shown, Hungarian uses a wide range of coverbs which serve as perfectivizing means. The contrastive analysis of the telicity marking of verbs in English and Hungarian clearly underpins that while in English in the majority of cases it is the lexical entries of verbs that may encode telicity, in Hungarian the verb's telicity value is always brought about compositionally by means of perfectivizing coverbs.

3. Achievement verbs are inherently telic events introduced by a subset of simple verbs in English. In those few cases when the particle is used, its function is simply to emphasize the end state of a telic event. Degree achievements containing particles appeared to be insensitive to telicity due to their gradable properties. Unlike in English, in Hungarian the telicity reading of an achievement event can only arise if a coverb or both a coverb and an object are also present. Degree achievements in Hungarian behave differently from their English counterparts in that they fail to introduce telicity via their lexical specification. Again in Hungarian, degree achievements, as normally all achievement verbs, can be telicized only compositionally, i.e. through the addition of coverbs.
4. Semelfactive verbs introduce punctual events lexically in English, they do not take perfectivizing particles. When semelfactive verbs are used in the progressive form, they express a series of punctual events and receive a derived activity reading. Used as derived activity verbs, they can be further modified by perfectivizing particles. As we have shown, punctual events are not all semelfactive in Smith's (1997) sense, there is at least one subclass of semelfactive events to be distinguished, the verbs of which are the change of state verbs and yet not achievements. In Hungarian, compositionality again plays an important role in the formation of semelfactive verbs as well, and though in a number of instances semelfactive events can be introduced lexically, still in the majority of cases the perfectivizing coverb *meg-* expresses the punctual reading of the semelfactive event.

## 8. A CONTRASTIVE ANALYSIS OF MORPHOLOGICAL AKTIONSARTEN IN HUNGARIAN AND ENGLISH

### 8.1 The notion of morphological Aktionsart

In the previous chapter we have already shown that particles in English may alter the eventual make-up of the verb (though not to such an extent as coverbs in Hungarian). Here it also seems plausible to examine if a verbal particle can participate in Aktionsart-formation similar to the Slavic and Hungarian languages. In this section we aim to show how the morphologically expressed Aktionsarten in Hungarian appear in English, i.e. whether it is possible to draw parallels in the two languages in terms of Aktionsart-formation by morphological means. The present analysis is inspired by the analysis of Aktionsarten in Hungarian by Kiefer (2000).

In Section 6.1 of this thesis we have argued for separating the notions of aspect and Aktionsart, i.e. Aktionsart is a lexical category, while aspect is grammatical. In Slavic linguistics, the separation of these two categories is commonly accepted (cf. Agrell 1908, Section 6.1). In Anglo-Saxon tradition, however (if it is possible to speak about tradition at all), neither aspect nor Aktionsart received an important role. Moreover, in recent studies the two notions are often conflated, i.e. the term Aktionsart has generally been reserved for the description of aspectual notions, such as events versus states, which are NOT morphologically marked in the language (cf. Pustejovsky 1995: 68). Other scholars simply ignore the notion of Aktionsart since there are no straightforward criteria to distinguish aspect from Aktionsart.<sup>76</sup>

In German linguistics, the notion of Aktionsart is discussed in terms of only the lexical meaning of the verb without consideration of the morphological structure of verb. This is perhaps due to the fact that in German there can be found only a limited number of formal means (if at all) to express Aktionsart. According to this traditional view, Aktionsart is a “kind of action”, it is the character of the situation named by a verb (Comrie 1976: 6-7). For

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<sup>76</sup> Comrie (1976: 7) is of the same opinion mentioning that “The distinction between aspect and aktionsart is drawn in at least the following two different ways. The first distinction is between aspect as grammaticalisation of the relevant semantic distinctions, while aktionsart represents lexicalisation of the distinctions, irrespective of how these distinctions are lexicalised ... The second distinction, which is that used by most Slavists ... is between aspect as grammaticalisation of the semantic distinction, and aktionsart as lexicalisation of the distinction provided that the lexicalisation is by means of derivational morphology.... In view of the confusion that can be caused by these two rather different senses of aktionsart, this term will not be used in the present work”.

Deutschbein (1939), the Aktionsarten express “the time relations within the objective process” (Deutschbein 1939: 147). They present “the different phases or stages through which a process progresses”, either “prospectively” (the endpoint lies in the future) or “successively” (the endpoint lies in the past): the former may be ingressive, progressive, or egressive, while the latter may be inchoative, continuative, conclusive or resultative (Deutschbein 1939: 138-9). Deutschbein argues that verbs may be of different “time-characters”, that is, “durative” (non-conclusive) or “non-durative” (conclusive); non-durative verbs are either “terminative” or “momentaneous-punctual”. Other scholars define Aktionsart in quantitative terms as to whether the verbs express iterativity, intensity or diminutiveness (reduced intensity) (cf. Helbig- Buscha 1986: 69). Due to the above implications, examples of Aktionsarten can be the following: the durativity of activities such as *work, eat, run, drink, write*; the iterativity of *breathe, stir, scratch, fly* and the intensive meaning found in verbs such as *shout, race, hurry*. But such an approach, according to Kiefer (1996), faces two basic difficulties:

1. Assume that the intensive Aktionsart can be found in the case of morphologically simple verbs. Kiefer (1996: 96) cites the following examples in Hungarian: the verb *ordít* ‘shout’ differs from *beszél* ‘speak’ in intensity, as well as the verb *vedel* ‘drink (to excess)’ from *iszik* ‘drink’. But the intensity in these cases is not simply a dichotomy encoded by a binary bit, but rather a question of degree. The following range of verbs express an increasing intensity: *ballag* ‘walk slowly’– *megy* ‘go’– *fut* ‘run’– *rohan* ‘hurry’– *száguld* ‘race along’; *suttog* ‘whisper’– *beszél* ‘speak’– *kiabál* ‘shout’– *ordít* ‘cry, scream’–*üvölt* ‘howl/scream’. How many degrees of intensity can be distinguished here? And does every degree represent a separate Aktionsart? The lexical Aktionsarten formed on the basis of intensity degrees become uncontrollable.
2. The lexical meaning of the verb is subject to multiple changes and modifications within a context (Kiefer 1996: 96-97). Thus, for instance, the verb *cough* ‘köhög’ denotes a single – stage event in (1) and a multiple event in (2). Consider:

- (1) *Pisti köhögött.*  
‘Pisti coughed’.
- (2) *Pisti napokon át köhögött.*  
‘Pisti coughed for days’.

In (1) the verb *cough* denotes a punctual event, i.e. a single event of coughing. In (2), however, this verb expresses the iterative event, i.e. the series of punctual coughing events.

Here another question arises: what is the Aktionsart of the verb *cough*? Momentaneous, single occurrence event which is turned into iterative due to the context?

Thus if Aktionsart is defined as a character or “kind of action” of an activity, process or any event described by a verb, an explanation is needed what happens to Aktionsart in different contexts. According to Isačenko (1962: 386), in Russian (as usual in Slavic languages) Aktionsart is a category which can be exactly defined, i.e. it can be contributed by several affixes.<sup>77</sup> Kiefer (2000), following Isačenko shows that the difficulties described above do not arise if the notion of Aktionsart is defined in terms of morphologically complex verbs (by means of a verbal prefix or suffix) (Kiefer 2000: 476). Thus, the definition of Aktionsart presupposes the following conditions:

1. the verb has to be morphologically complex (e.g. *elolvas* ‘read (through/over)’, *integet* ‘sy is waving’, *megír* ‘write’).
2. the verbal affix only modifies the meaning of the verb, i.e. the meaning of the base verb is supplied with only one single meaningful element (e.g. *megír* ‘write’ is resultative in contrast with *ír*, or *nyitogat* is iterative compared to *nyit*); this new meaningful element is an additional and not an essential feature of a verbal meaning.

Taking into account the above conditions, Kiefer (2000: 476) defines Aktionsart as follows:

Az akcióminőség a morfológiailag összetett ige toldalékolással vagy igekötővel bevezetett járulékos tulajdonsága. [An Aktionsart is defined as an additional feature of a morphologically complex verb introduced by means of a coverb or a suffix.– My translation].

Following the definition above, in the present study we claim that Aktionsart is a morphologically determined lexico-grammatical category. Morphological rules operate in the lexicon. If so defined, an Aktionsart category cannot depend on the context or on the clause.

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<sup>77</sup> Isačenko (1962: 386) explicitly distinguished between aspect, Aktionsart and *Verbalcharacter*. He separated ‘Aktionsart’ from ‘Verbalcharacter’ by defining the former as derived by formal means, and the latter in terms of the lexical meaning of verb.



## 8.2 Criteria of determining a morphological Aktionsart<sup>78</sup>

### 8.2.1 Productivity

It is required for Aktionsart to be productive, i.e. to be used for coining new verbs.<sup>79</sup> If the derivational process is not productive, Aktionsart cannot arise. Thus, for instance, in Hungarian, in the case of verbs such as *elmér* ‘measure smth out wrong’, *elszab* ‘cut badly’, *eltol* ‘botch/mess up’, the verbal meaning of ‘to carry out some activity in a wrong way’ cannot be considered to be an Aktionsart meaning, because this meaning is limited only to a few verbs, the verbal particle *el-* cannot be used any longer to form productively new verbs with a similar meaning.

### 8.2.2 Aktionsart is an additional feature of verbs with coverbs

The changes in emotional and cognitive states are frequently expressed by a coverb: *megszeret* ‘come to love’, *meggyűlöl* ‘come to hate’, *megtud* ‘come to know/realize’, *megismer* ‘come to know’. These cases do not exemplify Aktionsart meanings either, because the coverb expresses the change in an emotional or cognitive state (beginning state) and does not add an additional meaning to a verb. For instance, *megszeret* ‘come to love’ does not consist of *szeret* ‘love’ and something else, but rather a state of coming closer to love.

### 8.2.3 The role of an Aktionsart-forming coverb

The verbs expressing Aktionsart should not be confused with compound verbs in Hungarian. Some coverbs used for Aktionsart-formation have almost completely lost their original adverbial meaning, their contribution to the compositional meaning of verbs with coverbs is derivable from the Aktionsart-formation rule only. Thus, for example, verbs such as *túlbecsül* ‘overestimate’, *túlméretez* ‘exaggerate’, *túlfizet* ‘overpay’; *továbbtanul* ‘learn on’, *továbbdolgozik* ‘work on’; *utána megy* ‘enquire about smth’, *utánarajzol* ‘copy’, etc. have nothing to do with Aktionsart. Similarly, in English the reduplicative prefix *re-* in *rebuild*,

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<sup>78</sup> The discussion of criteria of morphological Aktionsarten is based on Kiefer (2000: 477, 2006: 146-149)

<sup>79</sup> For a more detailed definition of productivity see Sections 4.1 and 4.2 of this thesis.

*recollect*, *rewrite*, *redo* and the prefix *out-* in *outnumber*, *outclass*, *outgrow* cannot be considered to be Aktionsart-formation affixes either, because these prefixes do not modify the meaning of base verbs. For example, *rebuild* has nothing to do with the reduplication (iteration) of a building activity, rather the prefix *re-* presupposes some earlier action denoted by a base verb, thus it is possible to claim that this prefix introduces a presupposition. The meaning of *rebuild* is not to build again and again, but ‘to make extensive repairs’ or ‘to restore to a previous state’ (*Merriam-Webster’s Online Dictionary*). In *out*-prefixed verbs the situation is very similar (cf. Section 5.2.1 of this thesis).

In English the number of verbs formed by means of verbal prefixes is restricted and these affixes are not productive in formation of new verbs any longer (cf. Section 5.2.1). Those few examples found in the dictionaries should be considered as lexicalised formations. However, in English we can find accounts of English particles as markers of telic Aktionsart (Garey 1957: 105; Brinton 1988: 167- 8). On the basis of the arguments above, we propose to refer to this Aktionsart as resultative Aktionsart reserving the notion of telicity for aspect.<sup>80</sup> Since the productivity of the English verbal particles *out*, *in*, *up* and *down* has already been proved (cf. Section 5.2.2), and verbal prefixes cannot introduce Aktionsart productively, our main concern in this section is the examination of Aktionsarten formed by means of particles in English.

### 8.3 The Analysis of Hungarian-English Aktionsarten

In Hungarian, Kiefer (2000: 477-79) showed eleven morphological Aktionsarten expressed by means of coverbs and the suffixes *-gat/-get*. Below we will determine if the morphological means of Hungarian Aktionsart-formation have parallels in English.

#### 8.3.1 Frequentative Aktionsart

This type of Aktionsarten expresses the unsystematic recurrence of an action, process or event. In Hungarian, the morphological means are coverb reduplication, it can be paraphrased as ‘it happens from time to time that V’. For example, *el-elolvas*, *meg-megcsúszik*, *be-benéz*, *fel-felsikolt* ‘read, slip, look into, cry out from time to time’. In English,

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<sup>80</sup> The notion of telicity in this thesis refers to a verbal aspect or an event structure.

this Aktionsart can be expressed only by means of a simple verb or an idiomatic phrasal verb in combination with different time adverb phrases such as *from time to time*, or *now and then*, e.g. *read now and then*, *go out once in a while/ once in a blue moon*, *call sy on occasionally*. Thus it is obvious that while in Hungarian frequentative Aktionsart-formation is rule-governed, i.e. the derivation follows a certain pattern, and it is rather systematic, in English frequentative Aktionsart cannot be formed by morphological means. English instead uses a simple verb (in some cases idiomatic phrasal verb) supplied by different adverb phrases.

### 8.3.2 Saturative Aktionsart

The meaning of this Aktionsart is ‘the action is brought to full satisfaction’, which is formed in Hungarian by means of the particle *ki-* and reflexive *magát* ‘oneself’. It can be paraphrased as ‘do smth to a satisfactory extent’, e.g. *kialussza magát* ‘lit. out-sleep oneself, sleep one’s fill’, *kipihen magát* ‘have a rest’, *kidolgozza magát* ‘do an honest day’s work, have a long day’s work’, *kibeszéli magát* ‘talk one’s fill’, *kiordítja magát* ‘have a long and satisfying shout with sy’.<sup>81</sup> Again a systematicity in the formation of this Aktionsart can be traced in Hungarian and there is a complete unsystematicity in English, as the English translations of the Hungarian examples show. English often takes a simple verb and an adverbial expression *one’s fill* to form this Aktionsart (e.g. *sleep one’s fill*, *eat one’s fill*, *drink one’s fill*, *talk one’s fill*), but complete phrasal expressions also frequently occur (e.g. *have a long and satisfying shout*). The derivation in English is not consistent, this Aktionsart is not formed by morphological means.

### 8.3.3 Iterative Aktionsart

The meaning of the Aktionsart: ‘the action occurs frequently’, the morphological means is the suffix *-gat/-get* in Hungarian, e.g. *csókolgat* ‘kiss sy repeatedly’, *ölelget* ‘hug/cuddle repeatedly’, *integet* ‘wave again and again’, *nyitogat* ‘open smth repeatedly/again and again’, *ütöget* ‘keep hitting/beating’, *kóstolgat* ‘keep tasting’. At first sight this Aktionsart may seem quite similar to frequentative Aktionsart if we compare the meanings, but it is important to emphasize that frequentative Aktionsart refers only to unsystematic iteration of

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<sup>81</sup> The source of translation of the Hungarian examples: *Magyar-Angol Kéziszótár* (1996) and *Sztaki English-Hungarian, Hungarian-English Online Dictionary*.

actions or events, while iterative Aktionsart may refer to both systematic and unsystematic cases as well. This fact can be supported by the incompatibility of the derived verbs expressing frequentative Aktionsart with the adverbs denoting systematicity such as *minden nap* ‘every day’, *rendszeresen* ‘regularly’. Compare the sentences:

- a. \**Minden nap / \*rendszeresen ki-kinyitotta az ajtót.*  
‘Every day / regularly she opened the door from time to time’.
- b. *Minden nap / rendszeresen nyitogatta az ajtót.*  
‘Every day / regularly she kept opening the door.’

Turning back to English, again we may observe that iterative Aktionsart-formation does not take morphological means, but simple verbs which are followed by adverbs such as *repeatedly, again and again, regularly* (e.g. *wave again and again, hug repeatedly*) are used as well as the grammatical form of *keep + gerund* (e.g. *keep opening smth*). Additionally, iterativity can be expressed by the progressive form of a verb accompanied by one of the adverbs mentioned above. In some cases the particle *away* might seem to express iterative Aktionsart as in *work away, hammer away, toil away, drink away*, but the iterative meaning of *away* even in these cases is not always consistent (cf. the discussion in 8.3.8), iterative Aktionsart-formation via the verbal particle *away* cannot be considered to be productive. Consequently, we cannot speak of morphologically expressed iterative Aktionsart in English.

### 8.3.4 Resultative Aktionsart

This Aktionsart expresses the goal, endpoint or result of a situation.<sup>82</sup> Morphologically it can be expressed by a wide range of verbal particles that imply result or completion, e.g. *felmos* ‘mop up / wash up’, *megír* ‘write’, *megvarr* ‘sew’, *elkölt* ‘spend’, *kitakarít* ‘clean up’, *becsomagol* ‘wrap up’, *meggyógyít* ‘heal up’, etc. In English, we can also find particles which most frequently indicate the endpoint of an action. These are *up, down, out, and off*; less frequent *through, over and away*, e.g. *wash up, heal up, flatten out, clean up, wrap up, cool*

<sup>82</sup> In English it is referred to as ‘telic’ Aktionsart by Brinton (1988: 167), though her notion is almost synonymous with an aspect marker, i.e. “the verbal particle affects the intrinsic temporal nature of a situation and hence alters its Aktionsart”; particles add the concept of a goal to durative situations. In fact, this Aktionsart comes very close to a pure perfectivization.

*down/off, fill up/out, write down, sew up, read through, read over, eat up, close down, etc.* These particle verbs are normally equivalent to the corresponding simple verbs and expressions such as *to the end, completely, until it is finished* or *all of it /them*. As can be observed, resultative Aktionsart-formation in English takes a wide range of verbal particles, as in Hungarian, which explicitly contribute to the notion of goal of an action, thus modify the base meaning of the verb as required by the definition of Aktionsart. But whether resultative Aktionsart can be considered a morphological Aktionsart in English will be discussed in Section 8.5 below.

### 8.3.5 Semelfactive Aktionsart

This Aktionsart denotes a single occurrence of an event in the case of durative base verbs. In Hungarian the morphological means: the coverb *meg-*. For instance, *megcsúszik* ‘slip’, *meghúz* ‘pull’, *megráz* ‘shake’. This range of verbs may also include verbs denoting a single action derived from iterative-durative verbs, e.g. *megcsóvál* ‘wag once’, *meglátogat* ‘call on once’, *megvakar* ‘scratch once’, *megsimogat* ‘fondle once’. In English we face difficulties if we intend to express this Aktionsart via complex verbs. Neither prefix nor verbal particles are suitable means to express semelfactive Aktionsart in English. Rather, lexico-grammatical means are used for this purpose, i.e. the simple form of a verb followed by an adverb *once*, e.g. *wag (the tail) once, scratch once, pull once, shake once, rub (one’s eyes) once, stir (smth) once*, etc. It has been mentioned above that the Aktionsart of morphologically simple verbs can easily change, their role in a sentence is hardly predictable. Thus, in our opinion, simple verbs are not suitable for Aktionsart-formation. This leads to a conclusion that English does not have semelfactive Aktionsart introduced by morphological means.

### 8.3.6 Diminutive Aktionsart

Diminutive Aktionsart denotes an action performed with a reduced intensity. Morphological means are suffixes *-gat/-get* in Hungarian. Complex verbs formed via these suffixes can be paraphrased as ‘to do something in an unhurried manner, at a leisurely pace’. For instance, *borozgat, dolgozgat, eszeget, olvasgat, teszeget, sétálgat* with the meaning ‘to perform the activity of drinking, working, eating, reading, walking in an unhurried way’. In

English a verbal particle or any other affix cannot introduce this Aktionsart. Similarly to some Aktionsarten above, in English we have to use particular grammatical means: the progressive form of a simple verb followed by adverb expressions such as *slowly*, *at a leisurely pace*, *in an unhurried way*, *at one's convenience*. For example, *sy is working in an unhurried way*, *sy is reading at their own leisure*, *sy is strolling about at a leisurely pace*. However, the examples clearly show that the meaning of a simple verb is not exactly that of a 'reduced intensity', much rather used in progressive, it denotes an iterative action which in addition occurs slowly. This again may lead to a confusion among Aktionsarten, e.g. iterative and diminutive. Thus we conclude that diminutive Aktionsart expressed by morphological means does not exist in English.

### 8.3.7 Inchoative Aktionsart

This Aktionsart denotes the beginning of an action or a process. In Hungarian, inchoative Aktionsart-formation morphological means are the coverbs *el-* and *fel-*. Derived complex verbs can be paraphrased as 'start V-ing'. This Aktionsart can be formed productively from verbs denoting sound emission by humans or animals. In this case, the coverb used to form an Aktionsart *el-* is accompanied by the reflexive *magát* 'oneself', e.g. *elsírja magát* 'burst out crying', *elneveti magát* 'burst out laughing', *elbőgi magát* 'burst into tears', *elordídjá magát* 'cry out'. Sound emission of inanimate subjects is expressed by the coverb *fel-*, e.g. *felzendül* 'sound', *felharsan* 'sound', *felbűg* (motor) 'hum'. However, it is not possible to paraphrase these verbs following a pattern 'start V-ing', e.g. *felharsan* does not mean 'start sounding', neither does the verb *felbűg* mean 'start humming'. *Felbűg* can only mean 'sound in a humming noise'. Aktionsart-formation in these cases does not seem to be productive enough, none of the complex verbs denote inchoative Aktionsart. Consequently, we conclude that productive inchoative Aktionsart-formation in Hungarian can occur only in the cases of durative verbs that are turned into momentaneous complex verbs following the derivational pattern in the above-mentioned manner, i.e. the coverb *el-*, which is accompanied by the reflexive *magát* 'oneself'.

In English this Aktionsart can be introduced only by an idiomatic phrase or rarely a gerundive phrase 'start+ ing', e.g. *burst into tears*, *burst out laughing*, *burst out crying*, *burst out singing*, *start shouting*. The Aktionsart-formation this way contradicts the definition of morphological Aktionsart and additionally, neither the input nor the output of derivation is predictable. From the above it follows that inchoative Aktionsart does not exist in English.

### 8.3.8 Delimitative Aktionsart

This Aktionsart emphasizes delimitedness of an action or a process. In Hungarian, it is formed with the help of the coverb *el-*. The verbs with coverbs can be paraphrased as ‘spend the delimited time by doing some activity’. For example, *elcseveg* ‘to chat away’, *elábrándozik* ‘muse’, *elszórakoztat* ‘entertain’, *eldolgozik* ‘work away’, *elborozgat* ‘drink (wine) away’, *elbetegeskedik* ‘be ill for a while’, etc. These verbs can occur with temporal adverbs such as *egy ideig/ egy kicsit/ egy darabig* ‘for a while’. At first sight derivation may seem productive in the case of verbs denoting durative situations and verbs denoting some state: (a) verbs denoting some psychical processes (*elgondolkodik* ‘meditate’, *elbámul* ‘stare /gaze’, *elábrándozik* ‘muse’); (b) verbs of speaking (*elbeszélget* ‘talk away’, *eldiskurál* ‘have a discussion’, *elcseveg* ‘chat away’); (c) action verbs expressing diminutive Aktionsart (*elfestetet* ‘paint away’, *elborozgat* ‘drink (wine) away’, *elinternetezget* ‘use internet’, *elimélezget* ‘email’). But since the base verbs of both (a) and (b) present closed classes which cannot be extended by additional verbs, and the verbs in (c), derived with the help of the suffix *-gat* conveying the meaning of ‘reduced intensity’ are members of an open class, i.e. many more verbs formed according to this pattern may enrich the group, we can speak about a productive delimitative Aktionsart-formation only in this latter case.

In English, the particle *away* might seem to express delimitative Aktionsart when, occurring with verbs, has the meaning other than that of translocational motion. It can be used with verbs to convey a sense that “some event is ongoing or continuing along as planned or expected, but without any real endpoint or goal” (Rice 1999: 236). Brinton (1985: 166) more specifically claims that *away* expresses continuation in those cases where the verb refers to an atelic event (durative situations which can be continued) but iteration in those cases where the verb refers to a punctual (instantaneous) or telic events (which cannot be continued). Thus, for example, *away* in the following combinations such as *chat away*, *play away*, *doze away*, *talk away*, *labour away*, *beat away* expresses continuation, but *sneeze away* has an iterative reading, since *sneeze* is punctual. If we stopped here, we could probably conclude that *away* can express delimitative Aktionsart with durative situations. But the situation is not so simple. Apart from continuative and iterative readings, aspectual *away* can also impose an inchoative reading on the event expressed by the verb, especially when the verb appears in imperative. Live (1965: 437) gives the following examples: *fire away!* *talk away!* *sing away!* Capelle (2005: 384) cites further examples of *away* with an inchoative (ingressive) reading: *spend away*, *sue away*, *kill away*, *laugh away*. In many cases it is not clear when the particle *away*

gets a continuative, iterative or inchoative meaning. Bolinger (1971a: 103- 4) himself is not sure if the meaning of *away* is iterative or inceptive (another term for ‘inchoative’) in *sing away*, *work away*, *chop away*. He calls this *away* “a kind of intensive perhaps definable by the legal phrase ‘without let or hindrance’ ” (Bolinger 1971a: 103). Moreover, *away* in *drink away*, *laugh away*, *laze away*, *snore away*, *sleep away*, etc. may convey the sense of demanding activity (Capelle 2005: 385). Due to this confusion and inconsistency in meanings we will not consider the particle *away* as a productive means of the delimitative Aktionsart-formation in English.

Delimitative Aktionsart in English is most often introduced by a simple verb accompanied by the adverbs that refer to duration, or through some expressions, e.g. *play for a while*, *have a long discussion*, *use an internet for a while*, *have a glass or two (of wine)*, etc. The English examples are, however, problematic for a couple of reasons. First, both the input and the output of Aktionsart-formation are hardly predictable. Secondly, the meaning of delimitative Aktionsart, i.e. ‘spend the delimited time by doing activity’ is not quite discernible in English examples. Finally, there are no morphological means to express this Aktionsart. We conclude that there is no morphologically expressed delimitative Aktionsart-formation in English.

### 8.3.9 Total Aktionsart

The verbs that express total Aktionsart denote an action, process or occurrence of an event which covers a large or a total area. The derivational coverb used to this end is *be-*, e.g. *bebiciklizik* ‘to cover a large area by cycling’, *bejár* (pl. az országot) ‘tour the large area or the whole country’, *beken* (ruzzsal, olajjal, krémmel, etc.) ‘put cream /smudge/grease somewhere’, *beporosodik* ‘get dusty’, *bepontoz* ‘draw dots’, *besötétít* ‘darken’, *bekockáz* ‘draw squares’, etc. The input verbs underlying derivation are semantically clear. The output of derivation is perfectivity, resultativity and totality. Totality always implies resultativity, therefore total Aktionsart can be considered as a subtype of resultative aktionsart. The corresponding English translations of the Hungarian examples can serve as the English examples as well. As can be seen, in English the simple verb casually accompanied by the nominal phrase *a large* or *a total area* are used to express this Aktionsart. The meaning of “total” in many cases is not transparent, let alone the morphological means that do not exist. We thus conclude that total Aktionsart does not exist in English either.



### 8.3.10 Intensive Aktionsart

The action is more intensive than usual. The morphological means to express this Aktionsart is the coverb *agyon-*. Verbs with coverbs can be paraphrased as ‘do something to an excessive extent’. The coverb *agyon-* occurs with transitive verbs whose objects do not imply result and denote an action which may affect the state of the subject, e.g. *agyongörbít* ‘bend excessively’, *agyonpirosít* ‘reddden excessively’, *agyonkarcol* ‘overscratch’. On the other hand, this coverb also occurs with intransitive verbs which denote non-agentive processes which occur by themselves, e.g. *agyonszárad* ‘overdry, dry excessively’, *agyonfagy* ‘overfreeze, freeze extensively’, *agyonporosodik* ‘get dusty to an excessive degree’. Again, the English translations of the Hungarian examples are also the examples in English for intensive Aktionsart. In English, either the prefix *over-*, or the simple verb followed by an adverb *excessively* can express intensive Aktionsart. The problems here are again twofold: first, the prefix *over-* does not correspond to the Hungarian *agyon-*; second, the prefix *over-* cannot introduce Aktionsart productively (cf. discussion above). Additionally, as in numerous cases above, lexical entries of simple verbs are not suitable means to introduce intensive Aktionsart. Thus we claim that an intensive Aktionsart cannot be formed by morphological means in English either.

### 8.3.11 Exhaustive Aktionsart

Exhaustive Aktionsart can be paraphrased as ‘the action is performed by an agent to exhaustion’, thus exhaustive Aktionsart always takes an agent-subject. In Hungarian, morphologically it is expressed by the coverbs *agyon-* and *tönkre-* both referring to exhaustion. In this meaning, both coverbs occur with intransitive and transitive durative activity verbs in their intransitive uses. A verb with coverb is obligatorily followed by the reflexive *magát* ‘oneself’, e.g. *agyonsétálja magát* ‘lit. walk oneself to death, walk to exhaustion’, *agyonkártyázza magát* ‘play cards until exhaustion’, *agyontanulja magát* ‘learn to exhaustion’, *agyonbiciklizi magát* ‘ride a bicycle until exhaustion’; *tönkredolgozza magát* ‘work oneself to death’, *tönkretanulja magát* ‘overstudy oneself to the point of exhaustion’, *tönkreírja magát* ‘overwrite to the point of absurdity’. The English translations of the above Hungarian verbs with coverbs, which serve as the English examples as well, clearly show that the Hungarian *agyon-* and *tönkre-* do not have corresponding particles in English. It can be

observed that in English simple verbs followed by the adverb phrases *until exhaustion*, *to death*, etc., and rarely an unproductive verbal prefix *over-* are the only means of Aktionsart-formation. But these means cannot be considered the exhaustive Aktionsart-introducing elements in English.

#### 8.4 Summary of Hungarian-English Aktionsarten

Armed with an awareness of the exact number of Aktionsarten in Hungarian, in this section we have investigated the possibility of Aktionsart-formation in English. On the basis of the analysis carried out, we have managed to point out only one Aktionsart, the resultative Aktionsart in English expressed by means of different verbal particles in contrast with eleven Aktionsarten in Hungarian which are expressed by at least ten coverbs and the suffixes *-gat/-get*. The relatively rich Aktionsart-formation system in Hungarian has been contrasted with an English system where, as it has appeared, the morphologically expressed Aktionsart is a rare phenomenon deriving from a poor inflectional morphology in English. Hungarian is an agglutinative language in contrast with English which is inflectional but tends towards becoming isolating with little to no morphology. The morphological system of agglutinative languages is always richer than that of inflectional languages in the fields of both inflection and derivation. Since the notion of Aktionsart is a morphologically determined lexico-grammatical notion it is quite natural to claim that not all languages have morphological Aktionsarten. As Kiefer (2010: 129-148) observes, there are more morphological Aktionsarten in Russian than in Hungarian and there are more in Hungarian than in German and there are more in German than in English. This does not entail, however, that Aktionsart meanings cannot be expressed by other means (e.g. by various adverbs) but such constructions would not be called Aktionsarten. As we have seen, English Aktionsart(en) cannot be formed either by means of derivational suffixes or prefixes. Verbal prefixes introduce Aktionsarten in English in an unproductive way. On the basis of our assumption, Aktionsarten cannot be formed by monomorphemic verbs and different verbal expressions. In exceptional cases, the English phrasal verb can denote Aktionsart – resultative aktionsart, but whether it can be called a morphological Aktionsart still remains to be seen. To sum up, in Hungarian, the Aktionsart-introducing elements are coverbs and derivational suffixes; in English only the verbal particles can be used as the Aktionsart-formation means.

## 8.5 Verb-particle combinations and word formation

In the final subsection of this thesis we aim to examine if the particle verbs in English are morphological constructs, because if they are not, the notion of morphologically expressed Aktionsart does not exist in English. Below we will provide arguments why verb particle constructions cannot be considered morphological constructs.

It is known that a prototypical word-formation always precedes a prototypical inflection (cf. Stump 2005). Consequently, if e.g. *eat up* was the result of a word-formation process, then the verb form inflected for the third person singular would be *\*eat ups* and not *eats up*, and the gerundive form would be *\*eat uping* rather than *eating up*. The verbal particle *up* is not tightly bound to the verb, it can be syntactically separable from the verb, e.g. in the case of a transitive verb, the object is frequently inserted between a base verb and a particle: *eat up the cake* – *eat the cake up*. It is not accidental thus that the English linguistic literature most frequently refers to particle verbs as phrasal verbs: such verbs are not brought about by derivational rules. Consequently, verbs containing particles cannot be regarded as examples of morphologically expressed Aktionsart.

Another argument against treating verb particle constructions as morphological words is the following. Verb particle constructions can be converted into nouns and adjectives. A ‘verb + particle’ can be considered a morphological construct if in the process of conversion the particle element of nouns, adjectives and participles does not separate from the base verb. In Hungarian, the output of the derivational rule describing the formation of verbs with coverbs is a morphological construct which can subject to further word formation processes (e.g. nominalizations). For instance, *felvág* ‘cut up’ → *felvágás* ‘cutting up’, *felvágó* ‘sy who is cutting up’, *fel-felvág* ‘cutting up from time to time’. It appears that if the output of the morphological rule is a morphological word, the input should be a word as well. Let us see if English allows further derivation of complex verbs in a similar way. Consider the following examples: *read out* → *reading out*, *\*a reading out boy* (but *a reading boy*), *\*a read out book* (but *a book which is read*); *build up* → *building up*, *\*a building up house*, *\*a built up house*; *go out* → *going out*, *\*a going out day* (but *a day off*), *\*a going out person* (but *a person who has a day off*).<sup>83</sup> The examples clearly show that in English word-formation faces obstacles,

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<sup>83</sup> Compare with the examples in Hungarian: *felolvas* ‘read up’ → *felolvasás*, *felolvasó* (fiú), *felolvasott* (könyv), *fel-felolvas*; *felépít* ‘build up’ → *felépítés*, *felépülő* (ház), *felépült* (ház); *kimegy* ‘go out’ → *kimenés*, *kimenő* (nap), *kimenős*.

i.e. while nominalizations are still possible, no other form can be derived with the particle preserved, unlike in Hungarian. The output of derivation is not a morphological construct.

Apart from the above-mentioned facts, the status of nominalized or converted verb particle constructions is not clear either. In some cases the position of the particle is at the beginning of the verb, in others at the end. Consider the following examples (from Huddleston and Pullum 2002: 1654-1655): (1) unsuffixed verb + particle: *breakthrough*, *drop-out*, *hang-up*, *look-out*, *pullover*, *run-up*, *show-off*, *sit-in*, etc.; (2) particle + unsuffixed verb: *downturn*, *intake*, *offshot*, *offspring*, *outlook*, *outbreak*, *overflow*, *underplay*, *upkeep*, etc. Such an unsystematic order of the particle and the verb in the examples signals that nominalizations are generated via unproductive rules. The internal suffixation displayed by English verb particle constructions is also problematic for analysis treating converted verb particle constructions as words. Consider the following examples (Huddleston and Pullum 2002: 1655): (1) verbal element carries the *-er* suffix, e.g. i. *diner-out*, *hanger-on*, *passer-by*, *runner-up*; ii. *bystander*, *onlooker*, *outrider*; (2) verbal element carries the *-ing* suffix, e.g. i. *dressing-down*, *going-over*, *summing-up*, *phasing-out*, *talking-to*, *washing-up*; ii. *infighting*, *outpouring*, *upbringing*, *uprising*. In addition to the variable position of a particle, examples above suggest that conversion into a noun takes place after suffixation, in (1) plurals are formed by adding *-s* to the noun in *-er*, for [i] this means that the plural suffix precedes the particle: *hangers-on*, *runners-up*. But the English compounds (morphological constructs) generally do not allow internal suffixation, e.g. *\*hands-bag* versus *handbags*. Besides, the meaning of a noun is frequently unpredictable, e.g. verbal *run up* does not have a meaning comparable to *runner-up* ‘winner of second place in a competition’. The picture is further complicated by the cases such as *takedownable* or *put-outer* ‘a small magical object that looks like a cigarette lighter’, in which the suffixes have been attached to the particle rather than to the verb (cf. Elenbaas 2007: 18), and we can also find some idiosyncratic forms, the meaning of which is an object, e.g. *pick-me-up* ‘a drink that makes you feel more lively’, *hand-me-downs* ‘clothes that have been worn by someone and given to someone else in the family’.

Still one more argument (perhaps not the last one) against English particle verbs as morphological constructs can be found in syntax. Williams (1981: 248) formulated the following rule to account for the head-finalness of English compounds that makes the status of verb particle combinations as words problematic:

### *Right-hand Head Rule (RHR)*

In morphology we define the head of a morphologically complex word to be the right-hand member of that word.

If verb particle constructions are words, they should appear as head-final constructs similar to compounds (e.g. *blackboard*, *underworld*). But particle verbs violate the RHR, yielding a head-initial construct, which indicates that they are not morphological constructs.

All the arguments above allow us to conclude that the verbs containing particles in English are not morphological constructs, consequently we conclude that English does not have morphologically expressed Aktionsart. Perhaps it could be the subject of future research to further examine how Aktionsarten that exist in languages with richer morphology can be expressed in inflectional languages, and thus in English.

## 9. CONCLUSION

In the present dissertation an attempt has been made to give a comprehensive analysis of verb particle constructions examining their certain properties such as productivity, aspect and Aktionsart. Below we will summarize the results.

We have examined the morphological productivity of verb particle constructions with the four directional particles *out*, *in*, *up* and *down*. We have suggested that verb particle constructions are morphologically productive formations if they are morphotactically productive and morphosemantically transparent. As we have seen, this latter criterion should be waived in the case of those combinations where the particle conveys aspectual meanings. We have assumed that a verb + particle is a morphologically productive combination if (i.) the meaning of the given particle can be inferred from its original directional meaning and (ii.) the meaning of the particle is derivable from its directional meaning if it can be considered to be the metonymic extension of the latter. On the basis of the criteria of morphological productivity and suggested hypotheses we have shown that verb particle constructions with the directional and aspectual particles are highly productive formations in contrast with their prefixed counterparts, which are not. We have also shown that the range of existing combinations can be extended by new words and the examples of neologisms serve as evidence for the productivity of contemporary verb particle combinations. Our analysis has justified the observation made by Fraser (1967) and Lipka (1972) that prefixed verb combinations should be considered frozen formations which are subject to a high degree of lexicalisation. We have also established a number of lexical rules that can generate productive verb particle constructions. Mastering the rules which native speakers intuitively apply to form new combinations and knowing which patterns of word formation show a higher productivity will help learners to make generalisations and to understand at least a significant part of newly formed words.

Among the verb particle constructions with the four directional/aspectual particles, the particle which has appeared to be the most productive in its directional sense was ***out***, the one involved in the largest number of combinations throughout the largest number of semantic classes (**7 classes, more than 178 combinations**, e.g. *creep out*, *gallop out*, *pluck out*, *drag out*, *peek out*, *squint out*, *bore out*, *bulge out*, *bed out*, *roll out*, etc.). It is followed closely by ***up***, which is equally productive in its directional and aspectual sense (**6 classes of verbs with the directional particle, more than 111 combinations** and **6 classes with the aspectual particle, more than 113 combinations**, e.g. **directional combinations** – *speed up*, *leap up*,

*creep up, draw up, pluck up, gaze up, pile up, slice up, belt up, nail up, etc.*; **aspectual combinations** – *eat up, drink up, guzzle up, stir up, mash up, sweep up, clog up, lock up, gather up, hoard up, etc.*). In fact, **up** has turned out to be the most productive particle in the aspectual function of all the particles as it can form the largest number of systematic verb particle combinations (**more than 113 combinations**). As for the particle **down**, it has displayed the lowest degree of productivity in its directional sense of all the particles (**98 combinations**) but it has appeared even less productive in its aspectual sense (**53 combinations**). The particle **in** has manifested a little lower degree of productivity than the particle **out** in its directional sense (**7 classes, around 135 combinations**, e.g. *rush in, race in, break in, hit in, stare in, dent in, block in, weld in, dine in, etc.*). However, **in** has failed to occur with verbs in its aspectual meaning, no systematic aspectual combinations with **in** have been attested.

The present productivity study of verb particle constructions underpins the fact that the semantics of verb particle constructions are not always arbitrary, in contradiction to most previous analyses of verb particle constructions, which have viewed them as closer to idioms. The meanings of many verb particle constructions are directly related to the individual meanings of the component verbs and particles by metonymical or metaphorical extension.

The use of Levin's (1993) verb classes has provided the opportunity to obtain more productive verb particle combinations, i.e. to extend the established verb classes further with the four directional/aspectual particles. The most productive classes of verbs which allow free attachment of directional particles turned out to be Levin's (1993) **Roll verbs** (51.3.1), **Run verbs** (51.3.2), **Skate verbs** (51.4.1), **Pedal verbs** (51.4.2), **Waltz verbs** (51.5), **Rush verbs** (53.2), **Slide verbs** (11.2), **Drive verbs** (11.5), etc. Levin's (1993) classes of verbs that can form productive aspectual combinations with the particles are **Wipe verbs** (2.3.3), **Clear verbs** (39.2), **Gobble verbs** (29.3), **Chase verbs** (51.6), **Split verbs** (23.2), **Eat verbs** (39.1), **Chew verbs** (39.2), **Cook verbs** (45.3), **Prepare verbs** (26.3) and **Talk verbs** (37.5). The two most extensive classes that have demonstrated full or partial productivity in combination with all the particles in the directional and aspectual sense are **Run verbs** (51.3.2), e.g. *amble, bounce, canter, carom, clamber, crawl, dash, dodder, drift, flit, float, gallop, stumble, etc.* and **Wipe verbs** (2.3.3) with the aspectual particle **out**, e.g. *bail out, brush out, buff out, comb out, distill out, dust out, erase out, filter out, hose out, etc.*

We have also discussed the problem of delineation of the categories of aspect, event and Aktionsart which are so often misinterpreted in the aspectual literature and argued that these categories are by no means identical. We have shown how these categories can be

distinguished. “Event” in “event structure” has been used in a broad sense, covering all sorts of situations, namely states, activities, accomplishments, achievements and semelfactives.

In discussing the role of the particle in telicizing an event we have provided evidence for the following observation: i. directional particles can have an aspectual impact on verbs; ii. particles can express perfective aspect; iii. particles are not redundant irrespective of the fact that the meaning expressed by the particle is inherently encoded by the verb.

We have also examined the aspectual impact of perfectivizing verbal particles and coverbs on the event-structural make-up of the event in English and Hungarian and we have shown that the verbal particles in English and coverbs in Hungarian may alter the telicity value of the verb or verbal predicate in different event classes. Our analysis has shown that the telicity marking in Hungarian by different coverbs is more systematic and consistent than in English.

In the case of stative verbs (predicates), the subclass of locatives (e.g. *sit, lie, stand*) can occur with the perfectivizing particles in English and coverbs in Hungarian due to the neutral character of stative predicates (cf. Mufwene 1984). The particles/coverbs in this subclass bring about a change of state in the sense that complex verbs denote the beginning of a state, but never the termination of a state (eg. *sit down, stand up, lie down*). In Hungarian, the perfectivizing coverb *meg-* with the base verbs of emotion, perception and cognition expresses a process or an instantaneous change in emotional, perceptual and cognitive state.

The class of activity predicates has proved to be the most ‘productive’ in the sense of accepting telicizing particles. We have shown that in those cases where telicizing particles occur with activity predicates, the particles/coverbs bring about a change of state or a change of location of the event and convert the atelic activity verbs either into telic accomplishments or achievements, focussing on the goal or endpoint of the event. The contrastive analysis of telicity marking of activity verbs in English and Hungarian has shown that while in English in the majority of cases it is the lexical entries of verbs that may encode telicity, in Hungarian the verb’s telicity value is always brought about compositionally, by means of perfectivizing coverbs.

We have also examined the class of achievement verbs and shown that in those rare cases when the particle is used, its function is simply to emphasize the end state of an inherently telic event in English. We have shown that in English in the majority of cases the telicity value of achievement verb predicates is introduced via lexical specification of verbs. In Hungarian all achievement verbs obligatorily take coverbs if telicized.



We have also argued that the class of semelfactive events should be treated as a class distinct from Vendler's (1967) and Dowty's (1979) achievements and activities because semelfactive verb predicates are punctual events which involve a single occurrence of an event. However, we have also shown that punctual events are not all semelfactive in Smith's (1997) sense. Among the established subclasses of a semelfactive verb class we have pointed out a subclass the verbs of which are change of state verbs and yet not achievements. In Hungarian the majority of semelfactive verbs are brought about compositionally, while in English semelfactive verbs are not formed via perfectivizing particles.

In the framework of Hungarian-English contrastive analysis, we have investigated the possibility of Aktionsart-formation in English. In the present research Aktionsart has been treated as a morphologically determined lexico-grammatical category. Following the generally accepted view, morphological rules operate in the lexicon. On the basis of the analysis carried out, we have managed to point out only one Aktionsart in English, the resultative Aktionsart expressed by means of different verbal particles in contrast with eleven Aktionsarten in Hungarian which are expressed by at least ten coverbs and the suffixes *-gat/-get*. We have provided arguments that verb particle constructions in English are not morphological constructs and concluded that the notion of morphologically expressed Aktionsart does not exist in English. It has been shown that one of the strongest claims against treating verb particle constructions as words is the unique character of nominalizations, i.e. the variable and unpredictable position of the particle in combination with the verb.

We believe the analysis of verb particle constructions from the above-mentioned viewpoints has been additional support of the view that semantically compositional verb particle constructions deserve to be treated separately from idiomatic phrasal verbs and the meanings of verb particle constructions (at least with the four examined particles) are systematic and not arbitrary as often viewed in the literature.

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