The Interaction of English Particles, Bulgarian Prefixes, and Telicity

M. Phil. Thesis in English Linguictics

Faculty of Humanities, Department of English Linguistics

Polya Vitkova Vitkova

Supervisor: Peter Svenonius

Acknowledgments:

I am extremely thankful to my supervisor Peter Svenonius and Gillian Ramchand for their valuable help and support during the course of my work. I would also like to thank Vyara Istratkova for her support and help, as well as all my informants in both languages. All mistakes and misinterpretations are my own.

Table of contents:

Acknowledgments……..……...…...ii
Table of Contents……..……..….iii
List of Abbreviations…….……iv
1. Introduction……1
2. Chapter 2. Theoretical background……3
   2.1. Verbs, arguments, and telicity…….5
   2.2. Particles and telicity……..11
3. Chapter3. Bulgarian…….....13
   3.1. Prefixes……..…13
   3.2. Tense and aspect……...18
   3.3. Verbs with Arguments……..21
4. Chapter 4. Comparison of English and Bulgarian……...…25
   4.1. English data……..….25
   4.2. Bulgarian data……...34
   4.3. Discussion…….46
5. Chapter 5. Conclusion…….57
   References……59

List of abbreviations:

ADD TO – additivity or dynamicity in time
CTC – continuos tense criterion
DC – definiteness criterion
DET – determiner
Def. – definite
DP – determiner phrase
Fem. – feminine
Masc. – masculine
N – noun
NP – noun phrase
Obl. – oblique case
Pimp. – past imperfective
Pl. – plural
Pperf. – past perfective
Pref. – prefix
Pres. – present
Prt. – particle
RP – result phrase
Sg. – singular
SP – path-descriptor
Specif. – specified
SQA – specified quantity of A
T – telic
V – verb
VP – verb phrase
Za- gloss from Bulgarian, means ‘for’ in English, but this variant is chosen for Convenience
1P. – first person
2P. – second person
3P. – third person

1. Introduction

Many linguists have worked in the sphere of aspect in various languages, among others Verkuyl (1972,1993), Krifka (1987,1992), Borik (2002), etc. Many of these have compared English particles to Slavic prefixes in terms of aspectual properties. Aspect here is viewed in terms of (a)telicity properties of all elements of the structure, for which the quantization properties of the object need to be viewed more closely. Most of the Slavic languages lack a definite article, and this has been one of the problems in trying to find out the aspectual properties of the VP as in this way they (the direct objects) have ambiguous interpretations. This is one of the reasons why Bulgarian is an interesting language to compare with.

This work is a comparative analysis of English particles, Bulgarian Prefixes, and their telicity effects. Chapter 1 is the introduction, and it gives a brief outline of the problem and shows the shape of what is to follow. Chapter 2 gives the theoretical background, presenting the main factors that interact when building the telicity of a verbal phrase, including the type of the verb, the nature of the object and the presence/absence of particles. Section 2.1. gives the Verkuyl (1972,1993) facts concerning the interaction of [+/-SQA] objects with [+/-ADD TO] verbs to create telic effects. It also gives Krifka's (1986, 1997) approach to mapping between the quantization of the object and the quantization (i.e. telicity) of the event. 2.2 discusses the effects of particles on telicity. Section 2.3. summarizes the chapter.

Chapter 3 gives a background in Bulgarian. In section 3.1. I present basic facts about Bulgarian that are crucial for the understanding of the data and the following it analysis. There I show the difference between the two types of prefixes (lexical and superlexical) pointing out which will be the ones discussed here. 3.2. is a brief description of the tense/aspect system in Bulgarian. It shows the properties of prefixed verbs and introduces the basic test for telicity, which will be used throughout my work.

Chapter 4 is the basic one, where the data from both languages is presented, followed by the relevant discussion. 4.1. gives the English data from the three classes of verbs chosen for the comparison with a brief discussion of it. This section is followed by 4.2. which gives the same outline for the Bulgarian parallel pairs of examples have been used to keep as close to the facts as possible. 4.3. is a discussion of the data and some conclusions. The current work ends up not making any formal proposal. It simply analyses the data, based on the already existing analyses. However, it points out some main distinctions between the two languages, and some interesting generalizations appear.

2. Theoretical Background

This work is trying to outline a part of a very complex problem. Aspect is one of the main concepts to be used throughout my work, though it would not be referred to as aspect all the time, because the tense/aspect problem is way too big for the scope of this current project. Telicity, quantization, definiteness and perfectivity will be the main notions used here, and this is why their meaning, or more correctly, the way in which they will be employed here needs to be clarified.

Telicity is a very complex notion. There are many factors interwoven when constructing the telicity of a verb phrase. First of all, the type of the verb matters. Depending on the type of the verb and the properties of the object (if any), a simple verb can be interpreted as telic or atelic. This is represented in the famous Vendler (1957) classification. This is also known as inner aspect, as it represents the intrinsic semantic properties of the verb (phrase), and it has often been described in terms of durativity and terminativity, definiteness and uniqueness, boundedness, telicity, eventivity, and quantization. Vendler (1957) distinguishes among four classes – states, activities, accomplishments and achievements, based on the following characteristics:

Table 1

	- process	**+ process**
- definite	state	activity
+ definite	achievement	accomplishment

Definiteness here is used interchangeably with telicity. For the purposes of this work the term telic will be used. Thus, following this table, accomplishments and achievements will be telic, and states and activities will be atelic.

The criteria behind this division are two main ones: continuity (vs. punctuality) and homogeneity (vs. heterogeneity). Vendler uses the following 'time schemata' to characterize his verb classes:

(1) STATE: *A loved somebody from t_1 to t_2* means that at any instant between t_1 and t_2 A loved that person.

ACTIVITY: *A was running at a time t* means that the time instant is on a time stretch throughout A is running.

ACCOMPLISHMENT: *A was drawing a circle at time t* means that t is on a time stretch in which A drew that circle.

ACHIEVEMENT: *A won a race between t_1 and t_2* means that the time instant at which A won the race is between t_1 and t_2 .

Thus, achievements and accomplishments involve unique, definite temporal units, as shown in ***Table 1*** . This criterion is called by Verkuyl (1993) among others, the Continuous Tense Criterion (CTC), for the vertical division; and Definiteness Criterion (DC) for the horizontal division.

Things look neat and simple in this classification, and though it captures a big group of verbs and the most typical of the cases, it is not sufficient to describe simple cases with varying verb arguments like those in the following examples:

(2) a. Mary drank the beer in/?for an hour. (telic)
b. Mary drank beer *in/for an hour. (atelic)

(3) a. Mary drew a circle in/*for an hour. (telic)
b. Mary drew circles *in/for an hour. (atelic)

(4) a. Mary walked to school in/*for an hour. (telic)
b. Students walked to school *in/for an hour. (atelic)
c. Mary walked in the school *in/for an hour. (atelic)

These examples show that it is not just the nominal arguments of the verb that matter, but also the prepositional modifiers, and as will become clear later, particles interfere with that too. I have used the 'in/for an hour' test for telicity here for expository purposes, however it will be introduced later on in more detail.

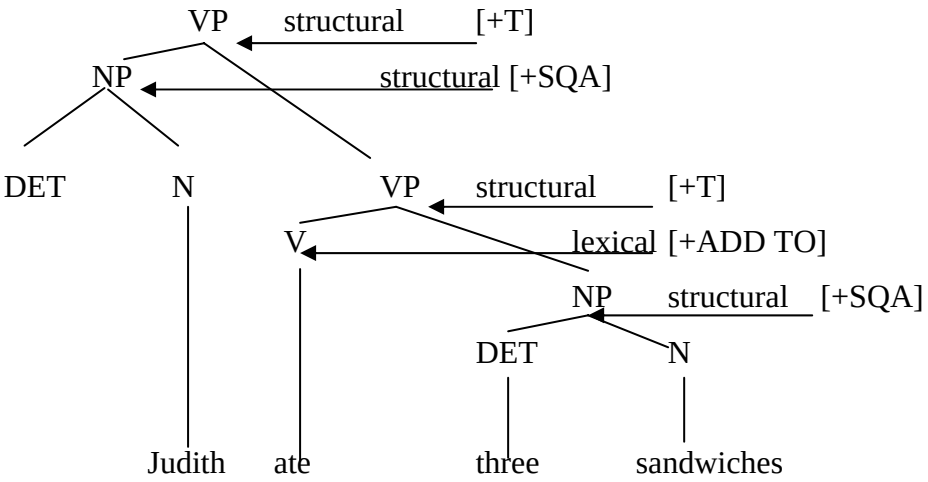
With my work I aim at comparing English and Bulgarian with respect to how these interactions work. This might sound too ambitious, but I am not trying to solve the whole problem with all the cases. I will concentrate on a small bit of the pie, specifically, I want to compare whether lexical prefixes in Bulgarian have the same sorts of effects as the particles in English.

The rest of the chapter is organized as follows: section 2.1. investigates verbs, their arguments, and telicity effects. For this part I lean on Verkuyl (1972) and Krifka (1987, 1992). 2.2. explores the effect of particles on telicity. In the end, there is a summary of the things said in this chapter.

2.1. Verbs, Arguments, and Telicity

The process of telicity formation is quite a complex one, and not totally clear. One of the most influential semantic approaches is the theory of compositional aspectuality developed by Verkuyl (1972, 1993). His theory aims at explaining how a telic or atelic interpretation is actually derived. The basic scheme of aspectual composition is given in (5) (cf., Verkuyl, 1993:22):

(5)



[SQA] stands for ‘specified quantity of A’, and A- for denotation of an argument. Bare plurals are [-SQA], while definite or numerical phrases are [+SQA]. [ADD TO] is for additivity or dynamicity in time (as opposed to stativity) expressed by the verb. In this way he separates states (which are [-ADD TO]) from activities, accomplishments and achievements (which are [+ADD TO]). And the [+/- T] stands for ‘telic’.

Here is how this model works. The aspectual composition, which is lexically specified as [+ADD TO] if it is not stative, signals dynamicity. However, if the verb is [-ADD TO] the whole phrase will be atelic, no matter what the specification of the arguments is. And if the verb is [+ADD TO], then the composition can continue. This compositional model makes use of indices to emphasize the atemporal nature of the aspectual formation. The opposition of tense versus aspect is really important in Verkuyl’s framework, as also pointed out by Borik (2002). Once the telicity values are determined to be either [+T] or [-T] the system can deal with it without changing its properties. Thus the temporal system only interacts with the [+/-T] feature on the VP as a whole, without ‘seeing’ its internal composition.

In this compositional framework, values are calculated for every V, VP and NP node in (5). In order to get a telic VP on the top of the tree, one should first get a sum of positive values for the subject, the object and the verb. Thus, for Verkuyl the telic aspectual value is the marked one, because those predicates are formed only if all the elements of the predicate (verb and its arguments) are positively marked for the relevant features. Then the unmarked and less specific member of this opposition is the atelic one, which is durative in Verkuyl's terminology. Once again, the important thing here that it has to be the sum of all positive values in order for a predicate to be telic.

Translated to simpler notions, for a VP to be telic both its arguments have to be [+SQA], i.e. their quantity needs to be specified in a way. This can happen either by modification by some quantity modifier or a definite article.

Verkuyl (1993) distinguishes between aspectual layers, depending on the levels of grammatical structure. In his simplified structure he distinguishes at least two levels that are indicative of the aspect. One is the VP level, and the other is S (sentence) level. Thus, to move from one level to the other it is also important to look at the subject NP. However, he considers his compositional approach to aspectual formation as sufficient enough to capture these variations. He sets aside 'push verbs', which are a separate subgroup, and for him they can be extended to a complex verb consisting of the original verb plus a particle. So, if 'push' is a [+ADD TO]-verb or a [-ADD TO]-verb, then 'push away' can be called a complex [+ADD TO]-verb, as it may contribute to the construal of the terminative aspect. He tries to deal with this as he views the verb like a semantically decomposable to 'give one or more pushes to'. To this group he adds verbs like: *caress, hit, iron*, etc. He describes them as somewhat irregular in their semantic structure from verbs like: *eat, mail send*, etc. However, I will not discuss verbs in the category of 'push' verbs (see Verkuyl 1993 for further discussion).

Another approach to telicity is Krifka's (1987) so-called mereological approach. Thus, in Krifka's terms no proper part of an event denoted by a telic verb can be an event of the same kind as the whole event. Krifka (1998) gives the following definition of telic, or quantized in his terms. In his sense if a predicate is semantically quantized, it denotes an eventuality with an inherent temporal delimitation, i.e. it is telic. Krifka (1998) give the following definition of quantization:

(6) ***A predicate P is quantized iff, whenever it applies to x and y, y cannot be a proper part of x.***

If we apply this to the following examples,

(7) (from Borik 2002)

a. Mary drove the car for an hour/*in an hour.
b. Mary ran a mile *for an hour/ in an hour.

In this sense (the definition in (6)) 'ran a mile' in the (b) example is quantized, as no proper part of the event can be viewed as running a mile. Thus 'a mile' is quantized. Note that here the object (though this is not a real object) is indefinite and still quantized, so it is not only the definite article that makes the verb phrase telic. The same can be said about the whole predicate, as if it takes one an hour to run a mile, it cannot be the case that it takes half an hour to do so.

The corresponding notion for atelic predicates is cumulative, and Krifka (1997) gives the following definition of it:

(8) A predicate P is cumulative iff, whenever it applies to x and y, it also applies to the sum of x and y, provided that it applies to at least two different entities.

Mass nouns (sugar, hay, etc.) and bare count plurals (books, rooms, etc.) are considered cumulative, for the sum of hay plus hay is hay, no matter the quantity. In this sense atelic verbal predicates are also cumulative: this means that any sum of hay plus hay is still hay, any sum of run and run is a running event, compared to a book plus a book, this does not give a book again, and if you run a mile a plus you run a mile, this does not mean you have totally run one mile, because the sum of the whole event would be two miles.

Ramchand (2003) argues that though there is a relationship between the internal arguments and the semantic feature [+telic], it is not a straightforward one. Thus even when the argument in question is quantized ([+SQA]), the respective VPs do not necessarily result in telic ones. She divides this sensitivity to arguments into two main groups, and quantization matters for one of them. This basically means that the existence of an internal argument does not imply telicity, even when that internal argument is quantized.

However, this is as far as the whole predicate (in this case VP) goes, there is also a dependency between the quantization of the object and the quantization (i.e. telicity) of the event. Take the examples from (2):

(9) a. Mary drank twelve shots of vodka *for/in an hour. (telic)
b. Mary drank vodka for/*in an hour. (atelic)
c. Mary drank the vodka for/in an hour. (ambiguous)

Example (9a) is quantized, as measure expressions yield quantization and make the whole event telic. In Verkuyl's terms 'twelve shots of vodka' will be [+SQA], and in Krifka's- no proper part of 'twelve shots of vodka' can be considered twelve shots of vodka. It is still vodka, but the whole event cannot be viewed as drinking 'twelve shots of vodka' if one drinks just ten. (9b) shows that bare mass nouns are non-quantized, and example (9c) comes to show that definite mass nouns are ambiguous, which is also true for definite plural count nouns. The latter

can be understood both as quantized and non-quantized. Yet, another factor that is worth mentioning here is the type of the verb, as those claims are true only for a particular class of verbs. Take, for example, the verbs ‘eat’ and ‘push’, they are quite well known in the literature because of the different results they give for telicity.

(10) a. He ate 2 apples.
b. He pushed a cart.

If we apply the tests for telicity to those examples, we will see that the event of eating is much more likely to get a telic interpretation than the event of pushing. But before we do that, let me clarify which tests I will be using and why. Among all other tests for telicity, which I will not mention here, is the one with ‘in/for an hour’ adverbial modification. Those that go well with ‘for an hour’ are interpreted as atelic, and those with ‘in an hour’ as telic. Throughout my whole work I will use those tests, and at certain stages I will add some clarifications to it. For present purposes, this is to say, that it is more natural to say that one ate an apple in an hour than for an hour, unless we evoke the iterative meaning, which is not possible in this particular case, because when you eat an apple, it no longer exists to be eaten again. Whereas if you push a cart you can push it over and over again (i.e. when you have a limited distance), and the cart does not have to change, as it does not get affected in the same sense as when an apple gets eaten. It has not been determined yet what happens with all the different types of verbs, but there is one class of them, which behaves fairly consistently. Those are the so-called creation/consumption verbs (like: *eat, drink, read, write*, etc.), which get telic readings when their objects are quantized, and atelic readings when their objects are not quantized. Thus, the type of the verb is also important when determining the telicity of an event.

2.2.Particles and Telicity

Now a few words about how particles contribute to telicity. It has been generally accepted in the literature that particles induce telicity on the verb phrase. Take the following pair of sentences:

(11) a. He drank the vodka for an hour/in an hour.
b. He drank up the vodka *for an hour/in an hour.

The only difference between the two examples in (11) is that in the in example (11b) there is a particle, so it is obvious that the effect comes from the particle, i.e. the telic interpretation comes form the particle. (11a) is ambiguous in a sense that the 'in an hour' reading refers to some specific quantity of vodka, while the 'for an hour' reading refers to some specific vodka without referring to its quantity.

The particles are similar to the verbs in one respect, they also show some differences in meaning. Thus, not all particles behave in the same way, and the interactions are slightly different with the different verbs, but there are some clear effects with certain classes. Compare, for example, the following two sets of examples:

(12) a. He ate the soup for/in an hour.
b. He ate up the soup *for/in an hour.

(13)a. He pushed the sand for/in an hour.
b. He pushed away the sand for/in an hour.
c. He pushed the cart *in/for an hour.
d. He pushed the cart over in/*for an hour. (the iterative reading for 'for an hour' is excluded here)

One thing can be said about those examples, they are simply different, and it is very difficult to say where this difference comes from. First of all, *eat* and *push* are different types of verbs (I already discussed this above), and then there is another factor, in a combination with directional preposition those in the *push* class become easily atelic. Thus, they deviate from the commonly accepted telicizing effect that particles in English are said to have.

To recapitulate, first, verbs behave differently with respect to telicity based on the type they are and the arguments they have. Second, count noun objects are systematically interpreted as ambiguous, even when indefinite, while the definite ones are systematically ambiguous, and the real quantized ones are those with measure expressions (like 'three cups of..', and any numerical expression). In this sense, the only truly non-quantized objects are bare mass nouns. Third, the different particles behave differently, and yield different results for telicity. It is not clear at all whether this is from the particle or the type of the verb, as *push* type verbs are quite unclear, even Verkuyl (1972) sets those aside as different. The safest way to go when comparing the two languages (namely English and Bulgarian) is to compare that group of verb-particle constructions, that behave neatly in English so we can isolate what is going on.

It is interesting to compare English and Bulgarian for several reasons. English verb-particle constructions are said to have parallels in the Slavic languages-verbal prefixation. Prefixes (the lexical ones, I will elaborate on this in the next chapter) in Slavic are thought to have the same effects (or at least very close similarity) on the VP as the particles in English, this is why this topic has been explored by quite a number of linguists. One complication, though, is that most of the Slavic languages do not have overt definite determiners, so the DPs have to be interpreted contextually. This factor makes Bulgarian very suitable for comparison as it has overt definite articles and quite rich a tense system, so this complicating factor can be avoided and the comparison can be neater.

Chapter 3. Background to Bulgarian

3.1. Prefixes

Bulgarian is one of several Slavic languages that have been explored concerning the particle-prefix correspondence between Slavic and Germanic languages. I have already pointed out the facts about the definite article in Bulgarian, and why it is interesting to compare Bulgarian and English. Some of the effects to be discussed like quantization refer to the presence and absence of definite articles in the English cases. However, most Slavic languages, except Bulgarian and Macedonian, do not have either definite, or indefinite articles. Russian, for example, is a language that lacks a definite article, and though a lot of work is done on Russian, the results from them can be improved by looking at Bulgarian, because phrases (in Russian) are interpreted as definite or indefinite depending on the context, and in some cases the context is exactly the same. On the other hand, in Bulgarian you have either a definite or a zero article. Here is one sentence in all three languages.

(14) a. I ate ***an*** apple. √ I ate ***the*** apple. (English)
b. Jadoh jabulka. √ Jadoh jabulka-***ta***. (Bulgarian)
c. Ja jel jabloko. (Russian)

There is one other peculiarity of Bulgarian verbs, which is not present in the other Slavic languages (here we stick comparing to Russian). It can be said that there are two main classes of verbs in Bulgarian. One of those two classes can freely appear in present tense clauses, those I will call **inherently imperfective**, as I am not familiar with a better name. These first group when unprefixed and used in the Past Perfective tense, imply incompleteness or habitual meaning, depending on the context. The other class contains verbs that they can only appear in subordinate clauses when used in present tense. The Past Imperfective also poses such restriction on them. I will call that second class of verbs **inherently**

perfective verbs. In most cases, verbs from both classes can have derived counterparts in the other class. (I am not sure however, whether it is safe to use here the opposition perfective/imperfective, so I might as well call them class one and class two). And at the same time those can be viewed either as telic or atelic, depending on what relations they enter. This is a focus of the present work. I will just briefly say that it depends on the type of verb, the type of the prefix attached to it and the type of the argument it takes as Direct Object.

The contrast is illustrated below:

(15) Inherently Imperfective

a. Cheta kniga.
   Read.1P.Sg.Pres. Book
   "I read a book. /I am reading a book."

b. Chetoh kniga.
   Read.1P.Sg.Pperf. book
   "I read a book. (but not necessarily finished the book, the event of reading has finished)"

(16) Inherently Perfective

a. *Kupja kniga.
   buy.1P.Sg.Pres. book
   "I buy a book. /I am buying a book."

b. Kupu-va-m kniga.
   buy-va-1P.Sg.Pres. book
   "I buy a book. /I am buying a book."

c. Trjabva da kupja kniga.
   Must to buy.1P.Sg.Pres. book
   "I must buy a book."

d. Kupih kniga.
   buy.1P.Sg.Pperf. book
   "I bought a book." – Here there is no difference with English, the event in the past is completed.

According to Bojadgiev (1998) there are at least 60 inherently perfective verbs in Bulgarian, and at least 20 more that have dubious status, which basically means that their perfectivity depends on the contextual environment. Moreover, each verb from the two classes can have a derived counterpart in the other class. There has been a long dispute in the traditional grammatical literature whether those should be viewed as two forms of one verb, or as separate verbs. I am personally more inclined to believe that those are the corresponding derivatives of one and the same verb. I would not go so deep as to look at the secondary imperfectives/perfectives, but I accept the distinction between the basic primary forms. And there are some diagnostics, which indicate whether a verb is inherently perfective or imperfective: I already used one of them, namely verbs that are inherently perfective cannot be used on its own in the Present tense; they cannot have present participles; and they cannot have negative imperative forms.

Pashov (1999) characterizes inherently perfective verbs as viewing the whole event, with its beginning and end points, and this is why it is easier to refer to those events in the past or future, but not in the present. Imperfective verbs then view the event in the process of being performed, until the action is aborted, but this does not imply completion in any sense.

Prefixes can also be divided in two general groups, lexical and superlexical. This division is based on a semantic criterion, and it can be said to be a classic one (Smith 1991). In that view, superlexical prefixes are said to have a stable meaning like “begin”, “finish”, “do for a while”, etc. While lexical prefixes do not have a fixed stable meaning, and they are most often idiosyncratic. It is mostly the latter class that is compared to Germanic particles. Most superlexical prefixes have a homophonous lexical counterpart, and most of the prefixes have a meaning as prepositions (although some of them are archaic). Bulgarian has 18 prefixes, and here is the list of them with their corresponding meanings as prepositions, for those that have one:

do- near, next to

iz- from

na- on

nad- over

o

ob

ot- from

po- along, on, at

pod- under

pred- in front of

pri- at (somebody's place)

pro

raz

s- with

v- in

vaz- over

za- for

zad- behind

Here are a few examples with both types to illustrate the difference:

(17)a. Toi za-pja pesen.
He pref-sing.3P.Sg.Pperf. song
'He started to sing a song.'

b. Toi iz-pia pesen.
He pref-sing-3P.Sg.Pperf. song
'He sang a song.'

The prefix is glossed just as 'pref[ix]', but this is because the meaning of superlexical prefixes will not be discussed further in this work, and the lexical

ones, which will be in the focus of investigation, do not have a stable meaning, when they have any. Thus, in (17a) the prefix ‘za-‘ means to begin, to start’, while the prefix in example (17b), does not have an isolated meaning, though it can be taken to mean something like ‘completion’. Nevertheless, what is relevant for the present context to pay attention to is that it is these prefixes (mostly lexical) that bear a close relationship to English (and Germanic in general) particles. Therefore, from here on when I speak about prefixes in Bulgarian, I will mean these that bear relation to Germanic particles. As in most cases they happen to be from the group of lexical prefixes, they are commonly referred to as lexical. There can be nice parallels like the following pair:

(18) a. He drank the vodka for an hour/in an hour.
b. He drank up the vodka *for an hour/in an hour.

(19) a. Pi vodka-ta edin/za edin chas.
drink-3P.Sg.Pperf. vodka- the.Fem one/for one hour.
‘He/she drank the vodka for an hour/in an hour.’
b. Iz-pi vodka-ta *edin/za edin chas.
Pref-drink.3P.Sg.Pperf. vodka- the.Fem. one/for one hour.
‘He/she drank up the vodka *for an hour/in an hour.’

This pair of examples suggests that there is really a close relationship between lexical prefixes in Bulgarian and particles in English. My aim is to examine that part of verb-particle constructions that behave clearly, and compare them with the parallel prefixed constructions in Bulgarian. It has not been established yet in the literature whether those two phenomena are really the same thing with the same function, or to what extent they overlap.

3.2. Tense and Aspect

Bulgarian has nine tenses. Some of those tenses are said to be marked for Aspect, and it is not very clear which part of the verb contributes what. A possible way of describing the Tense system in Bulgarian is based on distinctive features. The features used are +/- Future (those that are +Future have a morpheme "sht" in the auxiliary), +/- Perfect (those that are +Perfect have a morpheme "l" in the participle of the verb), and +/- Past (those that are + Past have a morpheme "h" in all persons, except 2nd and 3rd person Singular when conjugated). There is one small peculiarity about the grouping in this way, but I will explain it after I show the division in ***Table 2.***

Table 2

	- Future		+ Future	
	- Perfect	+ Perfect	- Perfect	+ Perfect
- Past	Present jadé *eat.3P.Sg.*	Present Perfect jal e *eaten.m. auxasc*	Future shte jadé *will eat.3P.Sg.Pres.*	Future Perfect shte e jal *will aux eaten.masc*
+ Past	Past Imperfective jade-she *eat.3P.Sg.*, - - - - - - - - - - - Past Perfective jáde *eat.3P.Sg.*	Past Perfect beshe jal *was.3P.Sg. eaten-masc.*	Future in the Past shteshe da jadé *would `to`[1] eat.3P.Sg*	Future Perfect in the Past shteshe da e jal *would `to` aux eaten.masc*

As noted above**,** there is one peculiarity, namely that the cell for [+ Past, - Future, - Perfect] has two tenses unlike all the others. This is due to the fact that only the past [- Perfect] tenses make difference between what in English corresponds to

"Simple" versus "Progressive". It is also obvious from this division that Bulgarian tenses are not pure tense, but also have Aspect features. However, this is a topic in itself, and will not be addressed in the current paper (for further information see Vyara Istratkova, in progress). For the present discussion, only the Past Perfective Tense (Pperf) will be used.

As explained in the previous part of this chapter, verbs in Bulgarian can be inherently perfective or inherently imperfective when unprefixed. Both types of verbs can be prefixed, and the prefixed ones are all perfective. This does not mean, though, that the inherently perfective ones cannot be prefixed, because prefixes are considered to have lexical meaning besides the perfectivizing grammatical function. However, perfective should not be confused with telic, as it can be the case that a prefixed verb is perfective and still not telic. There is a close correlation in Russian, but Bulgarian is different in this respect. Instead, I would like to establish what tests for telicity I will use, and what they show for Bulgarian. The following examples illustrate how perfectivity and telicity map in Bulgarian.

(20) a. Bojadisah ograda-ta za edin chas/*edin chas
paint.1P.Sg.Pperf. fence-the za one hour/one hour
'*I painted the fence in an hour/*for an hour.'*(perfective, telic)
b. Pre-bojadisah ogradata za edin chas/*edni chas.
Pref-paint.1P.Sg.Pperf. fence-the za one hour/one hour
'*I repainted the fence in an hour/*for an hour.'*(perfective, telic)

Example (20) shows that an inherently perfective verb tested for telicity gives a telic event, and when it is prefixed it still stays perfective and telic. To my knowledge, there are no inherently perfective verbs, which end up being atelic, the same is valid for when they are prefixed. Things change when those verbs are

[1] 'da' is a complementizer in Bulgarian, but here for the purposes of this work I will use 'to' as the English equivalent to it, as I am not interested in it in particular.

secondarily imperfectivized, but I will try to stay away from those and limit my research to inherently (im)perfective and their prefixed correspondences. See what happens with the inherently imperfetive verbs in (21):

(21) a. Chetoh poezia *za edin chas/edin chas.
Read.1Sg.Pperf. poetry za one hour/one hour
*'I read poetry *in an hour/for an hour.'*(imperfective, atelic)
b. Pro-chetoh poezia za edin chas/*edin chas.
Pref-read.1Sg.Pperf. poetry za one hour/one hour
*'I read out poetry in an hour/*for an hour.'*(perfective, telic)
c. Po-chetoh poezia *za edin chas/edin chas.
Pref-read.1Sg.Pperf. poetry za one hour/one hour
*'I read (for a while) poetry *in an hour/for an hour.'*(perfective, atelic)

Example (21) shows a verb that is inherently imperfective and the possible readings it can get when it becomes prefixed with different types of prefixes. This comes to show that perfectivity and telicity should not be confused for the same thing.

Like in many languages, Bulgarian also shows distinction between telic and atelic events. The standard 'in/for an hour' tests are also applicable, but let's establish first what they show in Bulgarian. In Bulgarian the relevant adverbials are of the type 'edin chas' (this means 'for an hour'), and 'za edin chas' (this means 'in an hour'). Now, there are a few nuances of those expressions, and I will illustrate them with examples:

(22) a. Poslednata uchastnichka pja edin chas/*za edin chas.
Last-the-fem. Participant-fem sing.3P.Sg.Pperf. one hour/for one hour
*'The last participant sang for an hour/*in an hour.'*
b. Tja kaza rech-ta *edin chas/za edin chas.
She say.3P.Sg.Pperf. speech-the one hour/for one hour
'*She said the speech *for an hour/in an hour.'*

As shown in (22) the telcity tests attempt to measure the duration of an event, or the time it takes for an action to be completed. In this case telic and perfective coincide, but once again they should not be taken for one and the same thing.

3.3. Verbs with Arguments

As noted in chapter 2, Bulgarian is unlike most of the other Slavic languages in having an overt definite article, thus the complication of contextual interpretation of DPs can be avoided, and the comparison with English is easier.

Before I get to the definite article, there is need for a short description of the category of number. It can be said that there are mainly two options as to what a definite article can attach to, namely Count Nouns and Mass Nouns. Further subdivision divides the class of Count Nouns into Singular (Sg.) and Plural (Pl.), but this is not actually subdivision as every Count Noun can appear in both Singular and Plural. On the other hand the Mass Nouns are truly subdivided into two, because there are Mass Nouns, which can be only in the Singular, and those that appear only in the Plural.

On the other hand, all these nouns can appear with the definite article, in fact some of the mass ones are used only with the definite article, but the latter ones have definitely no place here, as it will be crucial whether the definite form is quantized, or indefinite – non-quantized.

One feature of the Bulgarian definiteness system is the fact the it lacks an overt indefinite article. Very often the unstressed numeral for ‘one’ (‘edin, edna, edno, edni’) is viewed as indefinite article in Bulgarian, but unlike the case in English, it appears to be optional.

In Bulgarian the definite article is suffixed to the noun or to its modifiers. It has different forms for the different genders and numbers. Pashov (1999) claims the endings for the definite article are not gender indicative, but despite that fact it is often given in the grammars separated according to gender. Here are the different forms it takes:

(23)

Masc. Sg.	**Fem. Sg.**	**N. Sg.**	**Masc./ Fem./ N. Pl**
-ja/ -´t	-ta	-to	-te

The Masc. Sg. has two forms here, because one of them is for the Oblique case, and it is used everywhere where something other than Nominative Case is required. This difference appears only in the Masc. Sg. form.

Bojadjiev et al. (1998) define the category of definiteness in Bulgarian as follows: "The definite article morpheme is a representative of the category determinator, which is marked by the feature definiteness." (Bojadjiev et al., 1998:515). The features characterizing the definite article morpheme are the following:

(24) a. -ut: Det [+def]
b. 'edin…': Det [-def, +specif.]
c. null: Det [-def, -specif.]

The way the definite article works is not a straightforward one, but it can be described in a way. This description will be done in terms of quantization, so that it directly fits the discussion further. I am not sure, though, that Bojadjiev et al. have used the term 'specific' with the same meaning as 'quantized'. If it is interchangeable with quantized, then they cannot explain how a singular count noun with a null article can be interpeted as quantized.

Let’s look at the singular count nouns and what happens to their interpretation when used with the definite article and without it. Take for example a noun like ‘apple’:

(25) a. jabulka
apple/Sg./Fem.
‘*an apple’*
b. jabulka-ta
apple/Sg./Fem.-Def.
‘*the apple’*

This noun is always going to be interpreted as quantized, except when used as the kind denoting in the sense that it names the kind of fruit. The quantization effect here does not come from the presence or absence of the definite article, it comes from the nature of the noun, it is count and singular, and every time it will mean ‘one’ irrespective of the definite article.

Turning to plural count nouns, here is an example of what they look like when definite and indefinite:

(26) a. jabulki
apple.Pl..Fem.
‘*apples’*
b. jabulki-te
apple.Pl.Fem-Def.
‘*the apples’*

Both the article-less indefinite and the definite form with an overt article are ambiguous between a quantized and a non-quantized interpretation. The article-less indefinite seems to pattern with the indefinite Mass Nouns, though there are some exceptions, but the definite plural noun is systematically ambiguous. In many cases the object is definite only because of the context, i.e. the definite

article signals discourse-familiarity but does not explicitly signal quantization. Here is an example:

(27) Jadoh jabulki vchera.
Eat.1P.Sg.Pperf. apples yesterday
Jadjah jabulkite i razmishljavah nad juvota.
Eat.1P.Sg.Pimperf. apples-the and contemplate-1P.Sg.Pimperf over life-the
'I ate apples yesterday. I was eating the apples contemplating about life.'

Even English shows the same difference in meaning, so when objects are viewed as quantized, this meaning should not be taken into account. The mass nouns also show this distinction, so even for them the definite article does not make them necessarily quantized. Here is an analogous example to (27), but with a Mass Noun:

(28) Slushah muzika vchera.
Listen.1P.Sg.Pperf. music yesterday
Slushah muzika**ta** i rmishljavah nad jivota.
Listen.1P.Sg.Pimperf.music-the and contemplate.1P.Sg.Pimperf over life-the
'I listened to music yesterday. I was listening to the music and contemplating about life.'

One thing, which has been established in the literature, is that a Mass Noun without an article is always interpreted as non-quantized, whereas when it has definite article it can get quantized interpretation, but not necessarily. For this reason I will use only Mass Nouns when setting my minimal pairs of examples.

Chapter 4. Comparison of Bulgarian and English

4.1. English

There are basically three classes that will enter the comparison here. These are chosen to illustrate different interactions between object quantization and particles. These three classes are: creation/consumption verbs (like *fill, empty, read,* etc.), degree achievement/accomplishments (like *heat, melt, wither,* etc.), and the last is quite a small one – the *eat/drink* class.

What follows are all the examples for the English part, and the discussion will be in the end, except some clarifying comments on the examples. The difference between the use of the definite article is also an important one, but it is not the center of the discussion (comparison). However, the contrast that one clearly gets here is the one between measure expressions and bare mass nouns (those are the ones for which it is most clear that they are truly (non-)quantized). In many places some of the readings, which are not relevant for discussion, are excluded. Mostly those are readings where iteration is evoked, or where the phrase has a habitual use. Those will be pointed out if they give rise to any ambiguity, especially when the first available reading is the one to be disregarded.

Creation/consumption Verbs:

This is the group of verbs like ‘fill’, ‘empty’, ‘read’, ‘write’, etc. They are also a subclass of the incremental theme verbs, which are associated with an argument that is affected in some way by the verbal action. However, it should not be taken for granted that all verbs that are incremental theme verbs are also creation/consumption verbs.

On the other hand, when these creation/consumption verbs are combined with a particle, they refer to an event that leads to the (non-) existence of the object in

question. Those should not be, however, confused with the verbs in the next group of examples, which are the degree achievement/accomplishment verbs. The difference is that the latter do not necessarily lead to the creation/consumption of the object, but rather to a change of its state. As will be seen, the clearest examples are often those with mass nouns.

(29) '*fill*'

a. John filled the tank in an hour/for an hour.

b. John filled the tank up in an hour/?for an hour.

For the example in (29) we see that when the verb is used without the particle it can get both telic and atelic readings. However, when the particle is added the atelic reading seems to disappear, or at least to require some type of special context, where actually you have to have a way of knowing the intention of the agent. In this case it would be that John has an intention of filling up the tank, and when he starts the filling-up action maybe he is interrupted after an hour, and he never actually gets to the end of the intended action. For the purposes of this work, I will simply disregard those readings as they are not the most salient ones, and thus not indicative. That meaning gets '?' only for this reason, otherwise it should be '*'.

(30) '*empty*'

a. John emptied the tank in an hour/for an hour.

b. John emptied the tank out in an hour/?for an hour.

For the (a) and (b) examples, it is not possible to find a suitable mass term object. However, it is a good example to illustrate a case when the quantization properties of the object are not clear-cut. This is because what also matters is the nature of the object in a sense. What I mean here is that when you are emptying a tank it does not change its physical state, but when you are emptying the water from a tank, the quantity of water varies systematically as the event proceeds, though the

true object, in view of the meaning of the verb, is the tank, which becomes emptied. Some native speakers report that they consider the tank also affected by the change, but yet it is in a different way than the water, i.e. the tank does not get smaller, bigger, etc., while the water becomes less in quantity, and probably takes a different shape depending on the container it is emptied in.

c. %John emptied two litres of water from the tank in an hour/*for an hour.
d. %John emptied water from the tank *in an hour/for an hour.

e. %John emptied out two litres of water from the tank in an hour/*for an hour.
f. %John emptied out water from the tank ?in an hour/for an hour.

For the last four sentences the present '%' sign means that not all the native speakers accept it, and this sign has to be differentiated from the '?' one, as the latter one means that actually all the native speakers have some doubts, but proper context improves them.

(31) '*read*'

a. John read two pages of the book in an hour/for an hour.
b. John read poetry *in an hour/for an hour.

c. John read out two pages of the book in an hour/for an hour.
d. John read out poetry *in an hour/for an hour.

The *for an hour* readings of (a) and (c) are possible only under a scenario where the reading includes repetitions and backtracking.

(32) '*write*'

a. John wrote two pages of his article in 4 hours/?for 4 hours.
b. John wrote poetry *in 4 hours/for 4 hours.

c. John wrote down two pages of his article in 4 hours/?for 4 hours.

d. John wrote down poetry in his little notebook *in 4 hours/for 4 hours.

As with *read,* the *for an hour* readings of the (a) and (c) sentences are only possible with repetitions and backtracking. (Q: Is this really what I am looking for? I was thinking of an examples more in the line of "He wrote down two pages of poetry in 4 hours/*for 4 hours." Or maybe I should just add this new one?)

(33) '*build'*

a. John built the house in a year/?for a year.

b. John built furniture *in a month/for a month.

c. John built the house up in under a year/for about a year. (build up = expand)

d. John built sand up around the moat in about ten minutes/for about 10 minutes. (build up=build so that it is up)

(34) '*cook'*

a. John cooked two pounds of potatoes in an hour/for an hour.

b. John cooked cabbage in an hour/for an hour.

c. John cooked up a pot of stew in an hour/for an hour.

d. John cooked up cabbage in an hour/?for an hour.

Example (34) shows a slight difference from the others with respect to telicity results. Judgments also vary here, but it seems that the definite article plus particle combination prefers telicity more strongly than most of the other examples.

(35) '*grate'*

a. John grated two carrots in ten minutes/for ten minutes.

b. John grated cheese ?in ten minutes/for ten minutes.

c. John grated two carrots up in just ten minutes/?for ten minutes.

d. John grated up cheese for the pasta in just ten minutes/for ten whole minutes.

For the *for ten minutes* reading of the (a) sentence, you could have for example a scenario where John is holding both carrots simultaneously and performing a grating action against the grater, but possibly its not working very well and the two carrots are still not completely grated.

What the above data show is that telicity is sometimes forced or favoured by a particle (27b, 28b, 33c), but often is not (28f, 29d, 30d, 31c, etc.); and similarly the quantization of the object sometimes favours telicity (28c-d, 29a-b, 29c-d, 30a-b, etc.) though occasionally it does not (32).

Degree Achievement/Accomplishments

Achievement verbs, as was mentioned earlier, introduce an event, which when expressed by a verb without particle denote a change of the state of the object, and with the particle this change is led to an end state. Those should also be differentiated from the verbs in the previous group, because they do not lead to the creation or disappearance of their objects.

(36) '*heat*'

a. John heated the pot in ten minutes/for ten minutes.

b. John heated water in ten minutes/for ten minutes.

c. John heated the pot up in ten minutes/for ten minutes.

d. John heated water up in just ten minutes/for ten whole minutes.

(37) ‘*melt’*

a. John melted the chocolate bar in ten minutes/for ten minutes.

b. John melted chocolate for the cake in ten minutes/for ten minutes.

c. John melted the chocolate bar down in ten minutes/for ten minutes.

d. John melted down chocolate for the cake in just ten minutes/for ten whole minutes.

(38) ‘*wither’*

a. The plant withered in just 5 days/for 5 days.

b. Fruit withered on the vine in just 3 days/for three whole days.

c. The plant withered away in just 5 days/?for 5 days.

d. Fruit withered away on the vine in just 3 days/for 3 whole days. (ok repetitive, ? otherwise)

(39) ‘*whiten’*

a. John whitened the towel in 2 hours/for 2 hours (by laying it in the sun).

b. John whitened cotton in just 2 hours/for 2 whole hours (by laying it in the sun).

c. John whitened up the fence in just two hours/for 2 hours with a good lick of paint.

d. John whitened cotton up in the sun in just 2 hours/for 2 whole hours.

(40) '*darken'*

a. John darkened the room in 2 minutes/for 2 minutes.

b. John darkened photographic paper in 2 minutes/for 2 minutes.

c. John darkened up the room in 2 minutes/for 2 minutes.

d. John darkened up photographic paper in 2 minutes/for 2 minutes.

(41) '*freeze'*

a. John froze the bowl of porridge in 2 hours/ for 2 hours. (by leaving it in the snow).

b. John froze porridge in just 2 hours/for 2 whole hours. (by leaving it outside in the snow)

c. %John froze the bowl of porridge up in 2 hours/??for 2 hours.

d. %John froze porridge up in just 2 hours/??for 2 whole hours.

(42) '*put on weight'*

a. The footballer put on weight in just one season/for 3 seasons in a row.

For most of the verbs in this group the object can be definite, but it is not necessarily so. Thus not all of them have a variant with the definite article. What is important here is to make distinction between measure expression and bare mass nouns. For this class, neither the particle not the object's quantization appears to make much difference for telicity.

Eat/Drink Class

The verbs here are usually thought if as forming a small special sub-class in the creation/consumption one, but they do not conform with the other verbs there, so they are given as a class on their own. These here cannot have iteration readings, because, for example, once you eat something the object is gone, and you cannot

perform any further action on it. I make difference between iteration when you perform action on the same object, and when the action affects objects of the same class like '*John ate hotdogs in three seconds/for a whole minute.'*. When I say those verbs are more difficult in getting the iterative reading, I do not mean this type, because it is more like habitual reading. The other different thing in this class is that when the verb is with a particle, the object actually needs to be used with the definite article, or overtly quantized with a measure expression. Most probably, in this case the definite article coincides with quantization.

(43) '*eat*'

a. John ate the mango in just a minute/for a minute.

b. John ate porridge ??in 2 minutes/for 2 minutes.

c. John ate the mango up in 2 minutes/??for 2 minutes.

d. ??John ate porridge up in 2 minutes/for 2 minutes.

e. John ate the porridge up in 2 minutes/??for 2 minutes.

(44) '*drink*'

a. John drank nine deciliters of juice in just a minute/??for a minute.

b. John drank juice ??in 2 minutes/for 2 minutes.

c. John drank nine deciliters of juice up in 2 minutes/*for 2 minutes.

d. ??John drank juice up in 2 minutes/for 2 minutes.

e. John drank the juice up in 2 minutes/??for two minutes.

(45) '*use*'

a. John used a jar of mustard ?in just 2 days/for 2 whole weeks.

b. John used mustard for his sandwiches *in two days/for 2 days.

c. John used up a jar of mustard in just 2 days/*for 2 whole weeks.

d. ??John used up mustard in two days/for 2 whole weeks.

e. John used up the mustard in two days/??for 2 whole weeks.

Summary of the results

For the first class of verbs (creation/consumption) the most salient readings are: without particle- when the object is a noun modified by a measure expression, then both atelic and telic interpretations are possible; whereas when the object is a mass noun (non-quantized) the event is systematically interpreted as atelic, and the cases where telic interpretation is possible need additional context. With the particle- the situation seems to be reverse: when the object is modified by a measure expression, the event is interpreted as telic; and when the object is a mass noun, the event can be interpreted as either telic or atelic.

For the second class of verbs the examples show that the particles do not really change the interpretation of the event, and it can get both telic and atelic readings. This is probably due to the fact that this type of verb always changes the properties of the object in a way, and regardless of whether the object is quantized or not the change still happens, it is just that in most cases when used with a particle it leads to certain final state of the event, which does not depend on those properties of the object.

For the third very small class of verbs (the eat/drink type) the judgments are not that clear. What is clear there is that the telic reading of the event, when the verb is used without particle, is systematically not the preferred one. And when the verb is used with a particle, the situation is pretty clear, in all cases the atelic interpretation is simply out. And there is one more thing, the mass noun needs to be definite or measured out explicitly. This is an instance where definiteness can be viewed as quantization.

4.2. Bulgarian

Here are the examples from Bulgarian. Mostly minimal pairs are intended, however, there are instances where minimal pairs are not possible due to the inventory of the two languages. The judgments in Bulgarian seem to be much more clear-cut than those in English, and there are also some variations with the presence/absence of the definite article. For all verbs I have indicated in brackets whether they are inherently perfective or inherently imperfective, as this turns out to be one of the differences between English and Bulgarian.

All examples are set in Past Perfective tense (Aorist), since for the other tenses it is not so clear what the correspondence in English is. There is also some variation in the presence/absence of the definite article, and this should be read in the following way: (-the) means that the definite article suffix is optional, and its presence/absence does not affect the interpretation of the sentence in any way; *(-the) means that the omission of the definite article is not possible, moreover, it is ungrammatical. Because the English correspondence for the Bulgarian preposition ‘za’ is ‘for’ and this can be easily confused with the English ‘for’ as in ‘for an hour’, I will use ‘za’ in the glosses to avoid misinterpretations.

(46) ‘*puljnia’ (“fill”, inherently imperfective)*

a. John pulni rezervoar-a *za chas/edin chas.
John fill.3Sg.Pperf. trunk-the(obl.) za hour/one hour
‘*John filled the tank *in an hour/for an hour.’*

b. John na-pulni rezervoar-a za chas/*edin chas.
John pref-fill.3Sg.Pperf. trunk-the(obl.) za hour/one hour
‘*John filled the tank up in an hour/*for an hour.’*

(46) confirms what I said earlier that verbs that are inherently imperfective are also atelic when used in the Past Perfective (Aorist), even when they are from this creation/consumption type like here, while English seems to be ambiguous here,

depending on the properties of the object and the presence/absence of a definite article or a quantizing measure expression. If the meaning of the prefix can be singled out, this one means completion.

(47) *'praznia' ("empty", inherently imperfective)*

a. John prazni rezervoar-a *za chas/edin chas.
John empty.3Sg.Pperf. trunk-the(obl.) za hour/one hour
'*John emptied the tank *in an hour/for an hour.'*

b. John iz-prazni rezervoar-a za chas/*edin chas.
John pref-empty.3Sg.Pperf. trunk-the(obl.) za hour/one hour
'*John emptied the tank out in an hour/*for an hour.'*

c. John prazni dva litra voda ot rezervoar-a ?za chas/edin chas.
John empty-.Sg.Pperf. two liters water from trunk-the(obl.) za hour/one hour
'*John emptied two liters of water from the tank ?in an hour/for an hour.'*

d. John prazni voda ot rezervoara * za chas/edin chas.
John empty.3Sg.Pperf. water from trunk-the(obl.) za hour/one hour
'*John emptied water from the tank *in an hour/for an hour.'*

The '?' in (c) means that this example is good on a habitual reading, meaning that every time there is an event of John emptying water from the tank, it takes an hour, otherwise this reading with 'za chas' is ungrammatical.

e. John iz-prazni dva litra voda ot rezervoar-a za chas/*edin chas.
John pref-empty.3Sg.Pperf. two liters water from trunk-the(obl.) za hour/one hour
'*John emptied out two liters of water from the tank ?in an hour/for an hour.'*

f. John iz-prazni voda ot rezervoara za chas/*edin chas.
John pref-empty.3Sg.Pperf. water from trunk-the(obl.) za hour/one hour
'*John emptied out water from the tank in an hour/*for an hour.'*

Here we can see, regardless of whether the object is being ‘measured’ or not, the prefixed form only allows the telic reading, and the unprefixed ‘imperfective’ only allows atelic reading. The prefix in (47) cannot be singled out so easily, it has a complex meaning of completion and direction of the action. It is interesting that the English corresponding particles have the same or close meanings to the Bulgarian prefixes.

(48) *‘cheta’ (“read”, inherently imperfective)*

a. John chete dve stranici ot kniga-ta *za chas/edin chas.
John read.3Sg.Pperf. two pages from book-the za hour/one hour
‘*John read two pages of the book *in an hour/for an hour.’*

b. John chete poezia *za chas/edin chas.
John read.3Sg.Pperf. poetry za hour/one hour
‘*John read poetry *in an hour/for an hour.’*

c. John pro-chete dve stranici ot kniga-ta za chas/*edin chas.
John pref-read.3Sg.Pperf. two pages from book-the za hour/one hour
‘*John read out two pages of the book *in an hour/for an hour.’*

d. John pro-chete poezia za chas/*edin chas.
John pref-read.3Sg.Pperf. poetry za hour/one hour
‘*John read out poetry in an hour/*for an hour.’*

The prefix ‘Pro-‘ is used in example (48), but its meaning cannot be isolated as completive, so this can be taken as example of a clear lexical prefix. The English particle in this case is again ‘out’, which this time does not get any directional meaning, so in a way both the prefix and the particle are similar in having an abstract but idiosyncratic interpretation.

(49) *‘pisha’ (“write”, inherently imperfective)*

a. John pisa dve starnici ot statia-ta si *za 4 chasa/4 chasa.
John write.3Sg.Pperf. two pages from atricle-the his za 4 hours/4 hours
‘*John wrote two pages of his article *in 4 hours/4 hours.’*

b. John pisa poezia *za 4 chasa/4chasa.

John write.3Sg.Pperf. poetry za 4 hours/4 hours

‘*John wrote poetry *in 4 hours/for 4 hours.’*

c. John na-pisa dve starnici ot statia-ta si za 4 chasa/*4 chasa.

John pref-write.3Sg.Pperf. two pages from atricle-the his za 4 hours/4 hours

*‘John wrote down two pages of his article in 4 hours/*for 4 hours.’*

d. John na-pisa poezia za 4 chasa/*4chasa.

John pref-write.3Sg.Pperf. poetry za 4 hours/4 hours

‘*John wrote down poetry in 4 hours/*for 4 hours.’*

In (49) ‘na-‘ is used and, as I said before, it can be said that it has completive meaning. In this case the counterpart English particle is ‘down’. It is quite clear even from the examples to this moment, that in Bulgarian the prefixes have a strong perfectivising property, and most of them (at least those that are often compared with Germanic particles) are telic as well.

(50) *‘gotvia’ (“cook”, inherently imperfective)*

a. John gotvi dva kilograma kartofi *za chas/edin chas.

John cook.3Sg.Pperf. two kilos potatoes za hour/one hour

*‘John cooked two kilos of potatoes *in an hour/for an hour.’*

b. John gotvi zele *za chasa/edin chas.

John cook.3Sg.Pperf. cabbage za hour/one hour

*‘John cooked cabbage *in an hour/for an hour.’*

c. John s-gotvi tenjera zadusheno za chas/*edin chas.

John pref-cook.3Sg.Pperf. pot stew za hour/one hour

*‘John cooked up a pot of stew in an hour/*for an hour.’*

d. John s-gotvi zele *za chasa/edin chas.

John pref-cook.3Sg.Pperf. cabbage za hour/one hour

*‘John cooked cabbage *in an hour/for an hour.’*

‘S-‘ is also a prefix, which can be said to bear the meaning of completion. In the English examples ‘up’ is used. This particle appears quite systematically with the same meaning in the English examples, while, as we will see, in Bulgarian a few prefixes share this function, and the most common of them are: ‘na-‘, ‘iz-‘, ‘do-‘, ‘s-‘. However, those prefixes cannot be used interchangeably, there seem to be some kind of selectional properties either on the prefix itself, or on the verb.

(51) *‘sturzha’ (“grate”, inherently imperfective)*

a. John sturga dva morkova *za deset minuti/deset minuti.
John grate.3Sg.Pperf. two carrots za ten minutes /ten minutes
‘*John grated two carrots *in ten minutes/for ten minutes.’*

b. John sturga sirene *za deset minuti/deset minuti.
John grate.3Sg.Pperf. cheese za ten minutes /ten minutes
‘*John grated cheese *in ten minutes/for ten minutes.’*

c. John na-sturga dva morkova samo za deset minuti/*deset minuti.
John pref-grate.3Sg.Pperf. two carrots just za ten minutes /ten minutes
‘*John grated two carrots up in just ten minutes/*for ten minutes.’*

d. John na-sturga sirene za pasta-ta samo za deset minuti/*deset minuti.
John pref-grate.3Sg.Pperf. cheese for pasta-the just za ten minutes /ten minutes
‘*John grated up cheese for the pasta in just ten minutes/*for ten minutes.’*

Having seen the last example from this class, we can summarize that in Bulgarian the effect we see comes from the presence/absence of a prefix, while in the English examples this is a complex process, in which there are three elements that play some role: the type of the verb, the particle and the type of the object it has.

The surprising fact about Bulgarian is that even though these verbs bear all the prototypical semantic relations to their objects that we would expect to lead to effects on telicity from quantization (Krifka 1992), there seem to be no such entailments.

Degree Achievements/Accomplishments

As in English, this is the group where the object undergoes a gradual change, and the particle in the English examples is mostly a variant of the completion particle. This class of verbs does not show quantization effects even in English, so it would be surprising if we find them for this class in Bulgarian. The data generally confirm this prediction. Let us now consider the situation in Bulgarian:

(52) *'toplja' ("heat", inherently imperfective)*

a. John topli chainika *za deset minuti/deset minuti.
John heat.3Sg.Pperf. pot-the(obl.) za ten minutes/ten minutes
*'John heated the pot *in ten minutes/for ten minutes.'*

b. John topli voda *za deset minuti/deset minuti.
John heat.3Sg.Pperf. water za ten minutes/ten minutes
*'John heated water *in ten minutes/for ten minutes.'*

c. John s-topli chainika za deset minuti/*deset minuti.
John pref-heat.3Sg.Pperf. pot-the(obl.) za ten minutes/ten minutes
*'John heated the pot up in ten minutes/*for ten minutes.'*

d. John s-topli voda samo za deset minuti/*celi deset minuti.
John pref-heat.3Sg.Pperf. water just za ten minutes/whole ten minutes
*'John heated water up in just ten minutes/*for whole ten minutes.'*

(52) confirms what was said just before the example, the prefix used can be said to have a completive meaning. But the effect as a whole can be compared with the verbs in the previous class.

(53) *'toplja' ("melt", inherently imperfective)*

a. John topi parche-to shokolad *za dest minuti/deset minuti.
John melt.3Sg.Pperf. piece-the chocolate za ten minutes/ten minutes
*'John melted the piece of chocolate *in ten minutes/for ten minutes.'*

b. John topi shokolad za keik-a *za deset minuti/deset minuti.

John melt.3Sg.Pperf. chocolate for cake-the(obl.) za ten minutes/ten minutes

‘*John melted chocolate for the cake *in ten minutes/for ten minutes.’*

c. John raz-topi parche-to shokolad za dest minuti/*deset minuti.

John pref-melt.3Sg.Pperf. piece-the chocolate za ten minutes/ten minutes

‘*John melted the piece of chocolate down in ten minutes/*for ten minutes.’*

d. John raz-topi shokolad za keik-a samo za deset minuti/*celi deset.

John pref-melt.3Sg.Pperf. chocolate for cake-the(obl.) just za ten minutes/whole ten minuti

minutes

‘*John melted down chocolate for the cake in ten minutes/*for ten minutes.’*

In (53) the prefix ‘raz-‘ has been used, though another one with completive meaning can be used as well, namely ‘s-‘. There is slight difference in the meaning, though, but I do not think I can explain what exactly it is. The first impulse is to say that when ‘raz-‘ is used there is an intentional action from the part of the agent, and when ‘s-‘ is used it is not obligatorily so. Another thing, which is interesting here, is the different readings one can get depending on the position of the definite article. However the difference does not reflect on the telicity results. What I mean is that in (53d) if the definite article is only on ‘chocolate’ then the reading we get is that there is some special type of chocolate that is just for cakes, and what John grated would be the chocolate that is from that type, which does not necessarily mean that there is a cake to be prepared. On the other hand when only ‘cake’ is definite this might mean that John melted some amount of any chocolate for the cake that is being prepared, it might be from this special type of chocolate, but not necessarily.

(54) *‘vehna’ (“wither”, inherently imperfective)*

a. Rastenie-to vehna samo *za 5 dni/5 dni.

Plant-the wither.3Sg.Pperf. just za 5 days/5days

‘*The plant withered *in just 5 days/5 days.’*

b. Plod-at vehna na loza-ta samo *za 3 dni/celi 3 dni.
Fruit-the wither.3Sg.Pperf. on vine-the just za 3 days/whole 3 days
*'The fruit withered on the vine *in just 3 days/for 3 whole days.'*

c. Rastenie-to u-vehna samo za 5 dni/*5 dni.
Plant-the pref-wither.3Sg.Pperf. just za 5 days/5days
*'The plant withered away in just 5 days/*5 days.'*

d. Plod-at vehna na loza-ta samo *za 3 dni/celi 3 dni.
Fruit-the wither.3Sg.Pperf. on vine-the just za 3 days/whole 3 days
*'The fruit withered on the vine *in just 3 days/for 3 whole days.'*

(54) is the first in a group of examples that actually has intransitive verbs, but the results, however, do not differ considerably, if at all. The choice of prefix is again some variant of the completive ones mentioned earlier.

(55) a. Fotbolist-at debelja *za edin sezon/3 sezona podred.
Footballer-the put.on.weight.3Sg.Pperf. za one season/3 seasons in/a/row
*'The footballer put on weight in *in a season/for 3 seasons in a row.'*

b. Fotbolist-at na-debelja za edin sezon/*3 sezona podred.
Footballer-the pref-put.on.weight.3Sg.Pperf. za one season/3 seasons in/a/row
*'The footballer put on weight in in a season/*for 3 seasons in a row.'*

One interesting fact, which I think has not been mentioned it the earlier literature on this topic, is that there is a small group deadjectivized verbs that cannot appear in the Past Perfective (Aorist). For the moment the only examples I can think of are the colour ones, and they all resist appearing in the Aorist. This phenomenon definitely needs further investigation, however, it will not be discussed further in the present work. As far as I can tell, there is no other type of verb in Bulgarian that systematically resists appearing in the Aorist, even stative verbs give good results. It would be interesting to investigate whether this unusual property is due

either (a) to the de-adjectival nature of the root or (b) dues to its aspectual properties. I leave further discussion of this issue to later work.

(56) *'beleja', ("whiten", inherently imperfective)*

a. *John beli kurpa-ta za dva chasa/dva chasa.
John whiten.3Sg.Pperf. towel-the za two hours/two hours.
Intended: '*John whitened the towel in 2 hours/for 2 hours.*'

b. *John beli pamuk za dva chasa/dva chasa.
John whiten.3Sg.Pperf. cotton za two hours/two hours.
Intended: '*John whitened cotton in 2 hours/for 2 hours.*'

c. John iz-beli kurpa-ta za dva chasa/*dva chasa.
John pref-whiten.3Sg.Pperf. towel-the za two hours/two hours.
'*John whitened up the towel in 2 hours/*for 2 hours.*'

d. John iz-beli pamuk za dva chasa/*dva chasa.
John pref-whiten.3Sg.Pperf. cotton za two hours/two hours.
'*John whitened cotton up in 2 hours/for 2 hours.*'

(57) *'tumneja' ("darken", inherently imperfective)*

a. *John tumni staja-ta za 2 minuti/2 minuti.
John darken.3Sg.Pperf. room-the za 2 minutes/2 minutes
Intended: '*John darkened the room in 2 minutes/for 2 minutes.*'

b. *John tumni fotografska hartia za 2 minuti/2 minuti.
John darken.3Sg.Pperf. photographic paper za 2 minutes/2 minutes
Intended: '*John darkened photographic paper in 2 minutes/for 2 minutes.*'

c. John za-tumni staja-ta za 2 minuti/*2 minuti.
John pref-darken.3Sg.Pperf. room-the za 2 minutes/2 minutes
'*John darkened up the room in 2 minutes/*for 2 minutes.*'

d. John za-tumni fotografska hartia za 2 minuti/*2 minuti.
John pref-darken.3Sg.Pperf. photographic paper za 2 minutes/2 minutes
*'John darkened up photographic paper in 2 minutes/*for 2 minutes.'*

Again in all of them versions of the completive prefix have been used. This seems to pattern well with the English corresponding examples. However, the telicity results are different again for both languages, however, they are consistent with those for the previous class of verbs. Once again, we see that the existence of the lexical prefix determines whether the sentence will be telic in Bulgarian or not.

Eat/Drink Class

This third class is quite special, the verbs in it behaves differently in both English and Bulgarian. The common characteristic feature for both languages is that particles/prefixes induce telicity, but in addition they require overt definite article or a measure expression for the object, and other variants are not acceptable, they lead to ungrammaticality. In other words, even though so far Bulgarian telicity has appeared to be insensitive to object quantization, for this one class of verbs there is a strong effect: just as in English an *eat*-type verbs forces a quantized object in the presence of a prefix.

(58) *'jam' ("eat", inherently imperfective)*

a. John jade mango-to samo *za minuta/edna minuta.
John eat.3Sg.Pperf. mango-the just za minute/one minute
*'John ate the mango *in just a minute/for a minute.'*

b. John jade kasha *za 2 minuti/2 minuti.
John eat.3Sg.Pperf. porridge za 2 minutes/for 2 minutes.
*'John ate porridge *in 2 minutes/for 2 minutes.'*

c. John iz-jade mango-to za 2 minuti/*2 minutes.
John pref-eat.3Sg.Pperf. mango-the za 2 minutes/2 minutes
*'John ate up the mango in 2 minutes/*for 2 minutes.'*

d. ??John iz-jade kasha za 2 minuti/*2 minuti.

John pref-eat.3Sg.Pperf. porridge za 2 minutes/ 2 minutes.

??‘*John ate up porridge in 2 minutes/*for 2 minutes.*

(59) *‘pija’ (“drink”, inherently imperfective)*

a. John pi devet decilitra sok samo *za minuta/edna minuta.

John drink.3Sg.Pperf. nine deciliters juice just za minute/one minute

‘*John drank nine deciliters of juice *in just a minute/for a minute.’*

b. John pi sok *za 2 minuti/2 minuti.

John drink.3Sg.Pperf. juice za 2 minutes/2 minutes

‘*John drank juice *in 2 minutes/for 2 minutes.’*

c. John iz-pi devet decilitra sok samo za minuta/*edna minuta.

John pref-drink.3Sg.Pperf. nine deciliters juice just za minute/ one minute

‘*John drank nine deciliters of juice up in just a minute/*for a minute.’*

d. ??John iz-pi sok za 2 minuti/*2 minuti.

John pref-drink.3Sg.Pperf. juice za 2 minutes/2 minutes

??‘*John drank juice up in 2 minutes/*for 2 minutes.’*

The following example is the only one among those presented here that the verb is actually inherently perfective. You will notice one change in the judgments for the unprefixed part. This is something I have mentioned earlier on about the different telicity results when the verbs differ with respect to inherent (im)perfectivity. I will come back to this in the discussion section.

(60) *‘upotrebja’ (“use”,inherently perfective)*

a. John upotrebi burkanche gorchica samo za 2 dena/*celi 2 sedmici.

John use.3Sg.Pperf. jar mustard just za 2 days /whole 2 weeks

‘*John used a jar of mustard *in just 2 days/for whole 2 weeks.’*

b. John upotrebi gorchica za sandvichi-te si za dva dena/*dva dena.
John use-3Sg.Pperf. mustard for sandwiches-the his za two days/two days
‘*John used mustard for his sandwiches *in two days/for two days.’*

c. John do-upotrebi burkanche gorchica samo za 2 dena/*celi 2 sedmici.
John pref-use.3Sg.Pperf. jar mustard just za 2 days /whole 2 weeks
‘*John used up a jar of mustard in just 2 days/*for whole 2 weeks.’*

d. John do-upotrebi gorchica za dva dena/*dva dena.
John pref-use.3Sg.Pperf. mustard za two days/two days
‘*John used up mustard in two days/*for two days.’*

Summary of the results:

The first class of verbs is the creation/consumption class. Unprefixed verbs, here all of them happen to be inherently imperfective, result in atelic events, no matter whether the object is quantized or not. The prefixed ones all result in telic events, and this is again irrespective of the properties of the object. Thus, for that group it can be said that prefixes have a telicizing effect, apart from the perfectivizing effect that all prefixes have.

The second group is the degree achievements/accomplishment verbs. The unprefixed examples show similar results to those verbs of the previous group, which is that they are consistently atelic. Now, here one complication arises, one small subset of those verbs cannot be referred to in Past Perfective (Aorist) for reasons that are not clear to me. Those are also inherently imperfective, so this cannot be a complication caused by them being a different class, and even if they were inherently perfective, there is no restriction on using those verbs in the Past Perfective (Aorist) tense. However, when they get a prefix this restriction disappears and they can freely appear in the Past Perfective tense (Aorist). One

verb is left out from the Bulgarian examples here, because it cannot construct a minimal pair with the English one.

The third group is the small ‘eat/drink’ class. The unprefixed examples behave pretty much like the corresponding unprefixed verbs in the other two group, but this time there is one inherently perfective verb, which gets telic interpretation even without a prefix. The prefixed ones turn out to be an interesting case in that those verbs when prefixed require a quantized object.

4.3. Discussion

To keep the discussion focused, the purpose of this comparison of English and Bulgarian is to check to what extent particles in Germanic languages and lexical prefixes in Slavic do the same thing. Bulgarian is an interesting language to compare as it has an overt definite article, and one of the complications in comparison of Germanic and Slavic has been considered to be the lack of a definite article in most of the Slavic languages.

In what follows I will compare the examples from the two languages group by group, and after that I will present my findings and hypothesis for the reason of the differences.

Creation/Consumption Class

In the set of examples shown in the previous section, a number of creation/consumption verbs have been compared. The results are quite different for the two languages. Starting from examples without a particle or prefix, on the English side the results divide into two groups: the examples with an object modified by a measure expression are systematically ambiguous between a telic and an atelic interpretation, whereas the bare mass noun object tend to get atelic

interpretation. Thus, this implies that for the English part, the verb itself is influenced by the type of object it gets, so we should expect to find such difference in their counterparts in Bulgarian, as well as in the correspondent examples with particles. However in Bulgarian the situation is pretty different, the interpretation of the event still depends on the verb, but in another sense. It has been pointed out earlier that in Bulgarian the verbs can be either inherently perfective, or inherently imperfective. The number of the inherently perfective ones is significantly small (around 60), but this does not make it less important. Bulgarian verbs can also be divided into classes following the English examples, moreover, minimal pairs have been constructed, but the results are still different. Irrespective of the type of the object we have, the interpretation of the event is atelic, and this cannot be confused with having to do with the tense chosen, as the tense is Past Perfective (Aorist), and it is considered to be the clearest case.

Turning to the verbs with particles/prefixes, the situation seems to be analogous to the one just described. For the English part the results seem to remain pretty much the same, i.e. the mass nouns modified by a measure expression keep their ambiguity in interpretation, while the bare mass nouns are still mostly atelic. On the other side, Bulgarian seems to show a clear change of the roles, all examples become telic, irrespective of the object or its definiteness properties. The possible reasons for this obvious difference will be discussed in the end of this chapter.

Degree Achievement/Accomplishment Class

For this group, the results are even more ambiguous, and irrespective of the presence/absence of particle or type of the objects, the interpretations those examples get are pretty ambiguous, i.e. those sentences can be interpreted as both telic and atelic. Bulgarian is different again, however, it is analogous to the behavior of the Bulgarian verbs in the previous class. The unprefixed verbs are interpreted as atelic, again irrespective of the properties of the object. Here we

also find those verbs that resist appearing in Past Perfective (Aorist) tense, though they are inherently imperfective, and no restrictions are known for them so far. I set those verbs aside as probably the problem is much more complicated there, and most probably it will head in another direction, sidetracking from the purposes of the current work. I will just mention that their prefixed counterparts behave like the other verbs in the same class. The prefixed examples in Bulgarian also behave standard compared to the Bulgarian examples in the previous class, they are all interpreted as telic.

Eat/Drink Class

This class of verbs is the last one and the smallest one as well. This should imply that probably those verbs have some feature common to only a small class of verbs. The results for the sentences without particles do not seem to show a good contrast from one another, while the Bulgarian counterparts are still consistently atelic, except for the last verb, which is an inherently perfective one, and it gives a telic reading for the unprefixed variant, again irrespective of the object.

The verbs with particles in English here are much more systematic in interpretation from all the examples given up to now. Those sentences all have telic interpretations, and there is a dependency of the object on the verb, i.e. whenever we have a verb with a particle from this type it requires either a quantized object or an overt (definite) article. This leads us to think that this is one of the few instances where the definite article can be interpreted as quantizing the object. However this dependency is asymmetric, i.e. if the object is not quantized or definite, it would not lead to a different interpretation of the event, but this would lead to ungrammaticality of the sentence. The Bulgarian examples with prefixed verbs show the same result and the same dependency, this time irrespective both of the characteristics of the object, and the type of the verb (inherently (im)perfective).

Discussion

Now what can be a possible explanation for this differences. Can it be that these things simply work differently in both languages and they do not have anything in common to begin with, and all those that have viewed it as similar process have been wrong? Or maybe there is something else which makes the two phenomena look so different, and they are the same thing in their basic meaning. This was the question we started with, now let's see what the possible solutions are.

I have drawn attention to one fact in Bulgarian, namely the existence of two classes of verbs: inherently perfective ones and inherently imperfective. Let's remind you briefly what each of those meant. One of those two classes can freely appear in present tense clauses (the **inherently imperfective).** These when unprefixed and used in the Past Perfective tense, imply incompleteness or habitual meaning, depending on the context. The other class (the **inherently perfective** verbs) contains verbs are such that they can only appear in subordinate clauses when used in present tense, Past Imperfective also poses such restriction on them. Here are examples of such verbs (repeated from chapter two):

(15) Inherently Imperfective (repeated from chaper 2)

a. Cheta kniga.
   Read-1P.Sg.Pres. Book
   "I read a book. /I am reading a book."

b. Chetoh kniga.
   Read-1P.Sg.Pperf. book
   "I read a book. (but not necessarily finished the book, the event of reading has finished)"

(16) Inherently Perfective (repeated from chapter 2)

a. *Kupja kniga.
buy-1P.Sg.Pres. book
"I buy a book. /I am buying a book."

b. Kupu-va-m kniga.
buy-va-1P.Sg.Pres. book
"I buy a book. /I am buying a book."

c. Trjabva da kupja kniga.
Must to buy-1P.Sg.Pres. book
"I must buy a book."

d. Kupih kniga.
buy-1P.Sg.Pperf. book
"I bought a book." – Here there is no difference with English, the event in the past is completed.

It has become obvious that somehow this is one difference that makes Bulgarian different from the English. The absence of these two classes in English leads to ambiguity in meaning, and that ambiguity is exactly this one that we would have probably ended up in Bulgarian as well if it were not for those two classes. English compensates for that with ambiguity in interpretation, while in Bulgarian the two meanings can be differentiated, so that we clearly see what those characteristics of the verb do. However, one would expect to see similar results in the prefixed examples, i.e. difference in the interpretation, which does not happen, why is that? And what makes this last class so special as to have such a clear cut difference from the other verb classes in English, and in the same time brings English closer to Bulgarian?

The main observation is that prefixes in Bulgarian (at least these that are compared to Germanic particles) have strong telicizing effect irrespective of the quantization properties of the object. In English the situation is much different, the interpretation of the whole event is a complex one, it depends on the type of the

verb, the type of the particle, and the type, as well as the quantaztion properties of the object. For rare cases it even depends on the context.

Let us try and implement Verkuyl's (1993) approach of aspectual compositionality and see what happens. Thus, for his theory only a combination of a [+ADD TO]-verb with all of its arguments [+SQA]-NPs yields a compositionally formed terminative inner aspect. Otherwise, the other cases where the arguments are not [+SQA] the result is durativity (atelicity). He points out as an advantage of his theory that it amalgamates semantic and structural information, and only the positive sum of all the values gives a [+T] on the top.

From what we saw with the examples given in this chapter this cannot be the way to pin things down. There are a few obvious problems with that analysis: the first of them is the cases where we have verb plus particle, or a prefixed verb plus a non-quantized NP we should expect atelic interpretation in the end, but this does not happen, or even worse, In Bulgarian when we have inherently iperfective verbs that when prefixed become perfective and telic. Those cases should not appear under Verkuyl's analysis.

One other potential problem with all those examples given here is that for the Bulgarian part all except one of them are formed from inherently imperfective verbs. Now, here are some other verbs from those groups that are inherently perfective, which also behave like the one in the *eat/drink* class.

(61) *'suborja' ("ruin", inherently perfective.)*

a. Toi subori kushta-ta za den/*edin den.
He ruin-3Sg.Pperf. house-the for day/one day
'He ruined the house in an hour/for an hour.'

b. Toi do-subori kushta-ta za den/*edin den.
He pref-ruin-3Sg.Pperf. house-the for day/*one day
*'He ruined the house in an hour/*for an hour.'*

Or taking, for example a verb of the other group:

(62) *'osvetja' ("lighten", inherently perfective)*
a. Osvetih staja-ta s fener za minutka/*edna minutka.
Lighten-3Sg.Pperf. room-the with torch for minute/*one minute
'I lightened the room with a torch in a minute/ for a minute.'*
b. Osvetih seno-to s fener za minutka/*edna minutka.
Lighten-3Sg.Pperf. hay-the with torch for minute/*one minute
'I lightened the hay with a torch in a minute/ for a minute.'*

c. Do-osvetih staja-ta s fener za minutka/*edna minutka.
Pref-lighten-3Sg.Pperf. room-the with torch for minute/*one minute
'I lightened the room up with a torch in a minute/ for a minute.'*
d. Do-osvetih seno-to s fener za minutka/*edna minutka.
Pref-lighten-3Sg.Pperf. hay-the with torch for minute/*one minute
'I lightened the hay up with a torch in a minute/ for a minute.'*

Those examples clearly show that: first it is not only imperfective verbs that get prefixed, but also perfective ones too. The prefixes in Bulgarian are generally accepted to induce perfectivity and this is why people might be misled that perfective verbs cannot be prefixed. However, both types of verbs can be prefixed, and when this happens with a lexical prefix, it is always the case that the event denoted by the VP gets a telic interpretation. Thus in these cases it can be said that telicity coincides with perfectivity, and this also entails [+quantized]. One thing, which probably helps us understand better why it is so that sometimes we have objects that do not look quantized at all. Well, there might be several reasons for that. One of them is as suggested by Slabakova (1997) that there are prefixes, which are subject oriented, and such that are object oriented. Thus, this

allows for the object to stay indefinite or non-quantized, and the phrase still gets telic reading.

In terms of simple (unprefixed) verbs this (the two class distinction in Bulgarian) seems to be only difference between the two languages, and for Bulgarian we see that it show very clear results: all imperfective verbs result in atelic interpretation, and all the perfective ones result in telic interpretation. English has to depend on that on the properties of the verb's arguments, and is in most cases simply ambiguous.

This should not be expected to work both ways though, because if we have inherently perfective verbs, then we get telic reading of the simple (unprefixed) verb, and when you have basic imperfective one, we get atelic interpretation. However, when the imperfective ones are perfectivized by prefixes, it is not always the case that the perfective verb will be telic, moreover, it depends on the type of the prefix. With superlexical prefixes it can have atelic interpretation, while with lexical prefixes.

Let us take one particular example from both languages and see how a particular analysis works. For that purpose I will use den Dikken's (1995) small clause (SC) analysis and Ramchand and Svenonius (2002) lexical-syntax (l-syntax) analysis.

Presented in brief, the essential hypothesis about the nature of particles is the following:

(63) (from den Dikken 1995:270)

a. Particles are *SC heads.*
b. Particles are *ergative.*
c. Particles are *non-lexical.*
d. Particles are *prepositional.*

In this account, the object DP is base generated as the complement of the particle (Prt) within the small clause complement to V. It follows from (63b) that particles cannot assign case, which forces the DP to move to 'subject' position of the small clause where it receives accusative case from the higher V (for the relevant detailed critique of this analysis see Ramchand and Svenonius 2002).

What Ramchand and Svenonius (2002) suggest is built in the framework of Hale and Keyser (1993), where the lexical semantics is directly reflected in a structure subject to syntactic principles of combination. For them the verb and the particle instantiate parts of a larger structure, forming a single complex event, and having a single argument structure. The maximal l-syntax decomposition consists of 3 related subevents in a particular hierarchical relation:

(64) (taken from Ramchand and Svenonius 2002:6)

(causing subevent) → [process subevent → (result state)]

*v*P VP RP

In this framework DPs occupy specifier positions of the different syntactic heads, and get interpreted depending on which specifier position they occupy. Thus, the specifier of *v*P is interpreted as the initiator or 'subject of cause'; the specifier of VP- as the undergoer or 'subject of process'; and that of RP is the holder of the result state 'subject of result'.

I will not go in much detail of this analysis, because it discusses a slightly different part of the verb particle constructions, namely particle shifting. It is also an interesting topic to look at, but for the purposes of the present work it is slightly deviating from the main topic. Ramchand and Svenonius (2002) make reference to some South Asian languages, which have complex predicates that resemble the verb-particle constructions in that the main verb and the light verb behave as if they are part of single predication domain from the point of view of a framework where the syntactic and semantic contributions of the verbal

components are separable and distinguishable. Completive and resultative complex predicates seem to form a substantial subclass of light verb constructions in these languages. It is interesting that those classes for a substantial group of verb-particle constructions compared to prefixes in Slavic. Thus, for Ramchand and Svenonius (2002), the verb-particle constructions is the same as 'light verb' constructions in the languages that have them, except for the difference in which of the member of the pair compared has a bigger amount of specific encyclopedic information. For instance look at the following two examples from Bulgarian and English:

(65) '*heat'* (repeated from section 1 of this chapter)

a. John heated the pot in ten minutes/for ten minutes.

b. John heated water in ten minutes/for ten minutes.

c. John heated the pot up in ten minutes/for ten minutes.

d. John heated water up in just ten minutes/for ten whole minutes.

(66) *'toplja' ("heat", inherently imperfective)* (repeated from section 2 of this chapter)

a. John topli chainika *za deset minuti/deset minuti.
John heat.3Sg.Pperf. pot-the(obl.) za ten minutes/ten minutes
'*John heated the pot *in ten minutes/for ten minutes.'*

b. John topli voda *za deset minuti/deset minuti.
John heat.3Sg.Pperf. water za ten minutes/ten minutes
'*John heated water *in ten minutes/for ten minutes.'*

c. John s-topli chainika za deset minuti/*deset minuti.
John pref-heat.3Sg.Pperf. pot-the(obl.) za ten minutes/ten minutes
'*John heated the pot up in ten minutes/*for ten minutes.'*

d. John s-topli voda samo za deset minuti/*celi deset minuti.
John pref-heat.3Sg.Pperf. water just za ten minutes/whole ten minutes
'*John heated water up in just ten minutes/*for whole ten minutes.'*

It is obvious that the interpretation here is not clearly resultative, indeed it is part of the degree achievements/accomplishments group. Ramchand and Svenonius (2002) do not look exactly at this type of constructions, thus I cannot really say what explanation they provide for it. However, what might be said here is that this can be explained with what they propose for the cases where the interpretation of the construction is atelic. They suggest a new phrase in the system and they call it SP, and it is in complementary distribution with RP. For the case and type of verbs they describe with it SP stands for a 'path-descriptor' as opposed to RP, which is 'telos-locator'. In this case here the path should be on the degree scale. Thus, what can be concluded from that is that the prefixes in Bulgarian (these that correspond to Germanic particles) have much stronger telicizing effect than the particles in English. For Bulgarian the telic interpretations comes from the prefix irrespectable of the quantization properties of the direct object, while English relies on the complex interpretation of all the properties of the elements constituting the structure. I suggest that this difference has something in common with the basic division of simple (unprefixed) verbs in Bulgarian. I have shown that here is also difference in the interpretation as (a)telic depending on the type of the verb (i.e. perfective or imperfective), but the example where prefixed verb can have atelic interpretation is crucially with a prefix, which is not from the group of these compared to English particle. Thus, this again points towards the conclusion that in Bulgarian the telicity comes from the prefix part of the structure, while in English this is a complex interpretation for which all members of the structure matter. It depends on the type of the verb, the quantization properties of the object, and on the particle itself.

Eat/drink class remains special for both languages, and in addition to that it poses the same restrictions on the object for both languages. It requires a quantized object. Further more research needs to be done in order to find out what exactly is the main reason for this behavior and what exactly would be the solution that will capture all the cases.

Chapter 5. Conclusion

This work is an attempt to find out what the similarities or differences between thee classes of verb-particle combinations in English, and their corresponding Bulgarian parallels.

I have examined three classes of verbs: *creation/consumption* verbs, *degree achievement/accomplishments*, and *eat/drink* class of verbs. The results show that English is systematically ambiguous, and that the interpretation of the meaning there depends on the interaction between type of the verb, presence/absence of particle and the nature of the object and its quantization properties. Mass noun object are the clearest unambiguous case of non-quantized interpretation, while the rest are ambiguous. On the other hand, objects modified by measure expressions are the clearest case of quantized verb object.

In Bulgarian the situation is quite different. The prefixes have strongly telicizing effect. In most of the cases the nature of the object does not matter as long as is meaning compatible, but this is also valid for English as well, based on world knowledge. What is different about Bulgarian is that there is dependency on the interpretation of verbs, based on whether the verb is inherently perfective or inherently imperfective. However, this is for the cases with unprefixed verbs. Whenever a prefix is present (again this is for those prefixes that are compared to Germanic particles), then the VP gets a telic and perfective interpretation. The standard 'in/for an hour' test has been used for both languages. I have also shown that perfectivity of the verb in Bulgarian is not exactly the same as telicity, there can be cases of perfective verb, which is atelic.

Finally, there is this third *eat/drink class*, which is very small and behaves exceptionally, i.e. it does not follow the general pattern for neither of the

languages, and in the same time it is the same for both languages. It forces telic reading, and also requires quantization of the object, the non-quantized object does not give a different interpretation like in the other two classes for English, but it is simply ungrammatical. Definitely more research needs to be done about them, so this is open for future explorations.

In general I can say that some basic pattern is emerging, but we should look at a larger class of verbs. For the time being it will suffice to say that in English the telicity effects that are connected with verb-particle combinations depend on all members of the structure, while in Bulgarian the prefixes play the main role.

References:

Bojadjiev, Todor, Ivan Kutzarov, and Jordan Penchev. 1998. *Suvremenen Bulgarski ezik.* Petur Beron, Sofia

Borik, Olga. 2002. *Aspect and Reference time.* PhD thesis, Utrecht University

Dikken, Marcel den. 1995. *Particles: On the Syntax of Verb-Particle, Triadic, and Causative Constructions.* Oxford University Press, New York.

Hale, Kenneth, and Samuel Jay Keyser. 1993. On Argument Structure and the Lexical Expression of Syntactic Relations. In *The View from Building 20: Essays in Linguistics in Honor of Sylvain Bromberger,* Kenneth Hale and Samuel Jay Keyser (eds.), 53-109. MIT Press, Cambridge, Ma.

Istratkova, Vyara. (in progress). *Tense and Aspect in Bulgarian.* PhD thesis

Krifka, M. 1987. Nominal Reference and Temporal Construction: Towards the Semantics of Quantity. In : J. Groenendijk, M. Stokhof, and F. Veltman (eds.), *Proceedings of the 6th Amsterdam Colloquium 1987,* 153-173.

Krifka, M. 1992. Thematic Relations as Links between Nominal Reference and Temporal Construction. In I.Sag & A. Szabolcsi (eds.) *Lexixcal Matters*. US: Leland Stanford Junior University, 29-53.

Krifka, M. 1997. The Expression of Quantization (Boundedness). Paper presented at the Workshop on *Cross-Linguistic Variation in Semanics.* LSA Summer Institute. Cornell.

Pashov, Peter. 1999. *Bulgarska Gramatika*. Hermes, Sofia.

Ramchand, Gillian, and Peter Svenonius. 2002. The Lexical Syntax and Lexical Semantics of the Verb-Particle Construction. In *WCCFL 21 Proceedings,* ed. L. Mikkelsen and C. Potts, pp. 101-114. Somerville, MA: Cascadilla Press.

Ramchand, Gillian. 2003. *First Phase Syntax*. Manuscript, University of Oxford.

Slabakova, Roumyana. 1997. Bulgarian Preverbs: Aspect in Phrase Structure. In *Linguistics 35,* 673-704. Walter de Grynter.

Smith, Carlota. 1991. *The Parameter of Aspect.* Dordrecht, The Netherlands: Kluwer Academic Publishers.

Vendelr, Zeno. 1957. Verbs and Times. In *Philosophical Review 56,* 143-160.

Verkuyl, Henk. 1972. *On the Compositional nature of Aspects. Foundations of Language,* Supplementary Series, Vol. 15. D. Reidel Publishing Co., Dordrecht, The Netherlands.

Verkuyl, Henk. 1993. *A Theory of Aspectuality: The Interaction between Temporal and Atemporal Structure.* Cambridge University Press.