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DEVERBAL NOMINALS IN BULGARIAN: A SYNTACTIC ANALYSIS

MASTER'S THESIS

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CHAPTER 1: INTRODUCTION: SOME PRELIMINARY NOTES ON THE CURRENT WORK

The current work treats the topic of Bulgarian nominalizations in the Principles and Parameters framework.

I depart from the assumption that word formation is syntactic and functional and that a categoriless root is spelled out as a noun, adjective, or verb, depending on the functional layers that dominate it (Alexiadou 2001). However, contrary to Alexiadou (2001) and in accordance with Ferrari (2005), I will show that sometimes a stem and not a root must be inserted in syntax.

A crucial factor for the derivation of deverbal nominals in Bulgarian is the status of nominalizers inside the nominalizing process. Following Ferrari (2005) I will defend the obligatory presence of such nominalizing heads and claim that they can appear in the form of gender suffixes or various derivational suffixes marked for gender in Bulgarian. Thus, I will suggest, in line with Ferrari (2005), that noun formation results from the Merger of a nominalizing head [n] with an XP where XP can be a nominal, adjectival, or verbal stem, or a VP, AspP, or VoiceP.

I will propose that there are three nominalization types in Bulgarian, based on morphological criteria. The first type includes nouns derived on roots or stems via the merger with a gender morpheme (the gender-derived nominals) or a derivational suffix marked for gender. These nouns I label ‘other-suffix’ nominals.

The second nominalization type is what I label Voice –IE nominals. These nominalizations have been previously analysed as –NIE nominals in the literature (Dimitrova-Vulchanova and Mitkovska (2006), Popova (2006), Pashov (1999), Steinke (1999), Bojadjiev *et al* (1999)), among many others).

However, contrary to previous analyses, I will show that there are syntactic and semantic reasons to consider such nouns past passive participial nominalizations.

Finally, the third nominalization type is what has been traditionally known as process –NE nominals. However, contrary to previous assumptions that such nouns are process denoting only (Popova (2006), Dimitrova-Vulchanova and Mitkovska (2006), Pashov (1999), among others), I will show that there is much variation inside this group.

The present study also deals with the topic of movement and the types of movement operations involved in the nominalizing process. Having in mind that a deverbal nominal is derived via suffixation in Bulgarian, i.e, by attaching a nominalizing suffix to the root or stem, I will show that the right sequence of suffixes inside the Bulgarian nominalizations is obtained by phrasal movement exclusively. Following Cinque (2000, 2005), Mahajan (2000), and Ferrari (2005), I will show that the derivation obtains by the successive cyclic movements of larger and larger XPs from Spec to Spec position during the nominalizing process.

Concerning this issue, and having in mind that prefixation is also active inside the nominalizing process in Bulgarian, I will show that, although both prefixes (excluding the lexical ones which are not syntactically derived) and suffixes occupy head positions in my analysis, we have no need to postulate head movement to account for the right sequence of prefixes neither. Rather, I will propose that prefixes don't move in syntax but simply stack together with the constituent found below the projection hosting the prefix.

As for the types of prefixation involved inside the nominalizations, I will distinguish between three types. The first one consists of lexical prefixes. Contrary to previous analyses (Svenonius (2004a, b, c), Ramchand and Svenonius (2002), Ramchand (2004), Romanova (2004b), among many

others), I will show that lexical prefixes are not derived syntactically. Rather, they attach to the verbal stem pre-syntactically, i.e, as part of the stem, before they enter the derivation.

The second prefixation type includes the perfectivizing prefixes. These prefixes have an aspectual function and render imperfective verbs perfective. However, in doing so, they make the presence of the internal argument obligatory. I will claim for a syntactic derivation of such prefixes where I analyse them as heads of Borer's (2002) Asp_QP.

Finally, the third prefixation type is what is known as super-lexical prefixes. Such prefixes are also syntactically derived in my analysis. Due to their adverbial semantics, I analyse them as heads of an aspectual projection in accordance with Cinque's (1999) hierarchy of aspectual features.

Another topic examined in this work is argument structure. Following Grimshaw (1990) I will show that without event structure, there is no argument structure. Thus, I will divide the nominalizations in three types: true argument structure nominals, participant structure nominals, and result nominals. There is, though, no strict correspondence between morphological type and argument structure due to the fact that inside any morphological nominalization type (i.e, 'other-suffix', Voice –IE and –NE nominals) we can have result and participant structure nouns. However, only some transitive and prefixed process –NE nominals can be true argument structure nouns.

The event denotation inside nominals can also influence their syntactic behaviour. Thus, all of the eventive nouns allow for time and manner modification, and the adjective '*frequent*' whereas the pure object denoting nouns never do. As for result denoting nominals, they can combine with manner adverbials and the adjective '*frequent*'. A possible explanation for this fact is that such modifiers don't relate directly to the noun, i.e, the output of the event, but to the implicit event which have caused this output. As for agent-oriented

adverbials, only the argument-structure –NE nouns accept them. This suggests that such modification, apart from eventive semantics, requires argument structure as well.

However, no matter eventive or not, all of the nominalization types accept nominal modification (Pluralization, Indefinites, Numerals, and Demonstratives). This suggests that eventivity doesn't play a role here. Rather, it is the syntactic category- a noun- that licenses such modification.

Another issue commented in this work is the possibility for aspectual inheritance inside the nominalizing process. Having in mind that only the –NE nominalizations can denote processes, and due to the fact that such nouns are derived on imperfective verbal bases exclusively, I will propose that aspectual inheritance takes place in such nominalizations. Thus, it is the presence of the imperfective suffix inside these nominals which allows them to denote processes. This claim is further confirmed by telicity difference among Bulgarian deverbal nouns where only the process –NE nominals systematically allow for atelic modification. However, I will show that (a)telicity also depends on some properties of the lexical item (the presence or not of perfectivizing prefixes, the presence of telic PPs, etc.).

The organization of this work is as follows. In the following chapter I will present the main morpho-syntactic characteristics of the Bulgarian noun phrase in order to introduce the reader to the general picture of the Bulgarian nominal domain. Chapter 3 then will offer the theoretical framework adopted in this study together with some problems of previous analyses concerning the topic of nominalizations. The following chapter 4 will then present my syntactic analysis of Bulgarian nominalizations after which the role and syntax of prefixation will be discussed (chapter 5). Finally, I will close the discussion with some concluding remarks (chapter 6).

CHAPTER 2: THE MORPHO-SYNTAX OF BULGARIAN NP: AN INTRODUCTION

In this chapter, I would try to present the main morpho-syntactic characteristics of the Bulgarian noun phrase in order to introduce the reader to the general picture of the Bulgarian nominal domain. As the main concern in this study is to discuss the syntax of deverbal nominals, anything that is not directly relevant to this topic would be presented very briefly or sometimes even omitted.¹

Many linguists consider Bulgarian a classical language due to the fact that it derives from ancient Bulgarian, the first written Slavic language.² Contemporary Bulgarian has also been claimed to be in a certain sense “exotic” because it has undergone quite a particular path of evolution, as far as its morphology is concerned, when compared to the other Slavic languages. It has been claimed that contemporary Bulgarian (henceforth Bulgarian) is an analytic language whereas all the rest of the Slavic languages together with ancient Bulgarian are synthetic. This tendency towards analytism is the most significant characteristic of Bulgarian morphology.³ Bulgarian has also lost overt nominal Case morphology,⁴ contrary to the rest of the Slavic languages (including ancient Bulgarian). Additionally, and again as opposed to other Slavic languages, Bulgarian has developed a Determiner form expressing definiteness⁵ (see 2.1.5).

¹ Thus, I will not describe the Bulgarian verbal system in any more detail than what is strictly necessary for the purposes of the discussion that follows.

² Also known as ‘*Old Church Slavonic*’. In fact, I take the terms ‘Slavic’ and ‘Slavonic’ to be synonyms. I will prefer to use the former.

³ Bulgarian is considered an analytic language in general. Bojadjiev et al. (1999) claim that Bulgarian nowadays is considered to contain as many analytic forms as synthetic ones.

⁴ Closely related to the Case system is the status of the Bulgarian **Vocative** forms. The majority of the Slavic languages, though preserving Case distinctions, lost overt Vocative. Bulgarian underwent just the opposite process: it lost overt Case but preserved Vocative overtly.

⁵ All of the differentiating characteristics between Bulgarian and the rest of the Slavic languages are also shared by Macedonian. Thus, Macedonian, like Bulgarian, has lost CASE; has preserved the Vocative, and has developed the Determiner form. This is due to the influence of the rest of the Balkan languages (Romanian; Greek; Albanian; Bulgarian, Macedonian, the Torlakian dialect of Serbo-Croatian; Arli Romany/Gypsy), as both Bulgarian and Macedonian form part of the Balkan linguistic union (the so called *Balkan sprachbund*) and thus share many grammatical and structural similarities with these languages.

In this chapter, I will first proceed to briefly describe the main characteristics of the Bulgarian nominal morphology, focusing first on grammatical Gender and Number, to proceed to offer a brief summary of the expression and the position of the Determiner forms. In section 2.2 I introduce the reader to the details of Bulgarian deverbal nominals, after which I present some data showing that though closely related to verbs, these nouns should not be included as part of the verbal paradigm as has been traditionally considered. Thus, I briefly set up the frame of discussion for the forthcoming chapters and comments.

2.1. The morpho-syntactic characteristics of Bulgarian NP

2.1.1. Formal gender

Bulgarian has inherited the most basic characteristics of formal gender inflection from ancient Bulgarian with almost no changes. The language presents a three-way distinction in the forms of Feminine, Masculine and Neuter gender markers. Neuter was formerly used to designate nouns with neither feminine nor masculine natural gender, or in cases where it (i.e. sexual distinctions) didn't matter (Pashov, 1999: 63). This is still the case with the 'little creatures' of animals or of human beings where sexual differences still do not appear to play a significant social role or are not behaviourally obvious, as shown in the examples (1):

- (1) a. edn-o bebe
 one-NEUT.SG baby ('a baby')
- b. edn-o kote
 one-NEUT.SG kitten ('a kitten')

Nowadays, however, the relation between natural gender and grammatical gender is relevant only in a few cases: names to designate professions (like, for

example, *uchitel/ uchitel-ka* ‘he/she-teacher’; *doktor/doktor-ka* ‘he/she-doctor), and in the case of nouns designating people. For the rest of the occasions, grammatical gender depends mainly on the phonological ending (*‘okonchanie’*) of the noun.⁶

Nouns ending with a consonant (including *j* “й”) belong to the unmarked Masculine grammatical gender, which is phonologically null in Bulgarian. The following examples correspond to nouns denoting human beings (2a), animals (2b), plants (2c), objects (2d), or abstract concepts (2e):

- (2) a. **People:** *chovek* ‘man’, *rabotnik* ‘worker’, *pisatel* ‘writer’
- b. **Animals:** *kon* ‘horse’, *vŭlk* ‘wolf’, *slavej* ‘nightingale’
- c. **Plants:** *buk* ‘beech’, *shiboj* ‘gillyflower’
- d. **Objects:** *stol* ‘chair’, *kravaj* ‘ring-shaped bun’.
- e. **Abstract concepts:** *napredŭk* ‘progress’, *boj* ‘fight’

There are some exceptions in the case of male human beings. These correspond to cases where natural gender and grammatical gender (or the ‘gender’ ending) appear to be contradictory in a certain sense.⁷ In this case, it is the sex what determines the grammatical gender of the corresponding noun. A small number of nouns appear to show the ‘feminine gender ending’ *-a/-ja* but are assigned grammatical masculine due to their lexical meaning:⁸

- (3) *edin* *bashta*
one-MASC.SG father (a father)

⁶ Also called a gender ending (*‘rodovo okonchanie’*).

⁷ The “contradiction” I mean to refer to lie in the labels we use to name noun classes. It is unfortunate, and a source of confusion when describing grammatical facts, that noun inflections which are purely formal marks should be labelled “masculine” or “feminine”.

⁸ In a similar way that the Catalan or Spanish noun *poeta* ‘poet’ is grammatically masculine (i.e. *un poeta* ‘a/one poet’) independently of its *-a* ending.

The Feminine formal gender is overtly realized by the morphemes *-a/-ja*. Consider the examples in (4):⁹

- (4) a. **People:** *rabotnichk-a* ‘female worker’
- b. **Animals:** *majmun-a* ‘monkey’, *krav-a* ‘cow’
- c. **Plants:** *roz-a* ‘rose’, *smokin-ja* ‘fig’
- d. **Objects:** *himikalk-a* ‘pen’, *mas-a* ‘table’
- e. **Abstract concepts:** *kražb-a* ‘theft’

The nouns that end in *-o* or *-e* are neuter in Bulgarian (5), as in the following examples:¹⁰

- (5) a. **People:** *momch-e* ‘boy’, *momich-e* ‘girl’
- b. **Animals:** *kuch-e* ‘dog’, *pras-e* ‘pig’
- c. **Plants:** *žit-o* ‘wheat’, *zel-e* ‘cabbage’.
- d. **Objects:** *grebl-o* ‘oar’, *sūrts-e* ‘heart’
- e. **Abstract concepts:** *del-o* ‘act’, *peen-e* ‘singing’

Even in the case of what we may say that “a contradiction” appears to arise between natural gender and the Neuter grammatical gender endings in cases of nouns denoting people (see note 7), nouns that appear with the Neuter gender marker *-e/-o* remain invariably Neuter. They do not switch to the natural gender of the noun (as opposed to examples of the types (3)). Examples (6), which can denote a male or a female (6a), or only female (6b) and only male (6c), belong to this class:

- (6) (a) *moe-to* *libe*
 my-the.NEUT.SG sweetheart (‘my sweetheart’)

⁹ Exceptions to this general rule also exist. There is a small group of 150 nouns (which become 2500 when we add those endings in *-ost/-est*) which, though ending in a consonant, take Feminine grammatical gender. They do not designate people or animals but correspond to examples like *nosht* ‘night’, *esen* ‘autumn’ and *radost* ‘joy’, among others.

¹⁰ The examples in (3), (4) and (5) are taken from Pashov (1999: 63).

(b) edn-o momiche
one-NEUT.SG girl ('a girl')

(c) edn-o momche
one-NEUT.SG boy ('a boy')

Another type of nouns to be included in the Neuter class are some nouns of foreign origins that end in *-u*, *-ju*, *-i* where the final vowels form part of the root of the word. Consider the examples in (7):

(7) a. edn-o kenguru
one-NEUT.SG kangaroo ('a kangaroo')

b. edn-o taksi
one-NEUT.SG taxi ('a taxi')

It is important to note that the majority of the Bulgarian nominalizations examined in this paper belong to the gender Neuter as they end in *-e*. These are the deverbal nominals ending in *-NE* and *-NIE* (see section 2.2). Yet, as it would become clear, there are other nominalizations which have different suffixes and which would have their gender according to the type of ending they have (see section 2.2.3).

I will now proceed to discussing the characteristics of grammatical number in Bulgarian.

2.1.2. Grammatical Number

Bulgarian morphologically marks the distinction between Singular and Plural. The morpheme for grammatical singular is morphologically null. The Plural is expressed with a phonologically overt suffix. The form of the Plural depends on the Gender of the noun. There is a great variety of plural markers but

the most productive ones are *-i*, *-a*, and *-ove* (in the case of masculine monosyllabic nouns). Consider the following examples:

- (8) a. Fem: kŭsht-a / kŭsht-i
house-SG / house-PL 'house/houses'
- b. Masc: (i) stol / stol-ove
chair-SG / chair-PL 'chair/chairs'
- (ii) bilet / bilet-i
ticket-SG / ticket-PL 'ticket/tickets'
- c. Neut: dete / dets-a
child-SG / child-PL 'child/children'

Like Catalan, Spanish, and many other languages, Bulgarian also has *singularia tantum* and *pluralia tantum* nouns. The former include nouns that denote groups such as *studentsvo* 'studenthood', nouns denoting materials such as *vŭzduh* 'air' or *gris* 'semolina' and nouns denoting abstract entities *ljubov* 'love' or *mladost* 'childhood'. As we will see, some of the deverbal nominals would fall in this group too. *Pluralia tantum* nouns include forms naming objects composed of two or more parts that form a whole like *klesht-i* 'pliers' or objects that come normally in pairs like *obusht-a* 'shoes'. It also includes the names for some traditions like *zagovezn-i* 'Shrovetide'¹¹. Some geographical names like those denoting mountain ranges (*Alp-i-te* 'the Alps') also belong to this group.

Some special cases of grammatical number that should be mentioned are the dual and the so-called "count(able) plural" (*Brojna forma*). The dual has

¹¹ Orthodox Bulgarians Celebrate "*Sirni Zagovezni*" (Shrove Sunday) on the Sunday just seven weeks before Easter, marking the beginning of the Great Lent, the longest period of fasting throughout the year. In its way, the festival also serves to mark the beginning of spring. In olden days, most typical of *Sirni Zagovezni* was the building of large bonfires in the hills surrounding towns and villages. Young and old would gather round the bonfire where they apologized to each other, to forgive and forget the small wrongs and old quarrels in the name of friendliness and understanding.

disappeared as a grammatical entity in Bulgarian, although nowadays we can observe very few remains of it from Old Bulgarian. This is the case of some nouns denoting pairs of parts of the human or animal body such as (9):

- (9) a. **krak** - **krak-a**
leg.SG – leg-PL ('leg-legs')
- b. **rūka** - **rūts-e**
arm.SG – arm-PL ('arm-arms')
- c. **rog** - **rog-a**
horn.SG – horn-PL ('horn-horns')

The endings in (9) derive from the ancient Bulgarian Dual. Thus, we have the minimal pairs in (10) with (10a, b) being the Dual forms and (10a', b') being the regular plural forms:¹²

- (10) a. **rūka** - **rūts-e**
arm.SG – arm-PL ('arm-arms')
- a'. **reka** - **rek-i**
river.SG - river-PL ('river-rivers')
- b. **krak** - **krak-a**
leg.SG – leg-PL ('leg-legs')
- b'. **brak** - **brak-ove**
marriage.SG – marriage-PL ('marriage-marriages')

¹² Pashov (1999) claims that from a contemporary point of view, the examples in (9a, b,c) present the plural form, not the dual one, though they may originate from the latter. This is due to the fact that when we want to say more than two legs or arms we still use the forms of (9a, b) and not a different ones. That is, the remains of the Dual as in (9) function as a plural.

2.1.3. Case¹⁴

A final short note on CASE will serve to close our description of the formal features of Bulgarian nominals. As it has been previously said, though ancient Bulgarian was a fully inflected language with a very rich overt CASE system¹⁵, overt CASE inflection has disappeared in modern Bulgarian nominals. Although CASE features can be considered covert grammatical entities in Bulgarian, residues of its CASE system can be observed in the morphology of personal and family names.¹⁶

The only fully inflected words for CASE are the pronouns in Bulgarian, but I would not give any further details as it doesn't affect the prime concern here, i.e., the deverbal nominals. Thus, nowadays we use prepositions and particles to express formal relations in the sentential structure (13):

- (13) Kuch-e-to na Ivan
dog-NEUT.SG.-the.NEUT.SG. of Ivan
'The dog of Ivan'

Bulgarian still preserves the Vocative forms of some masculine and feminine nouns. Yet, neuter nouns and all the nouns in Plural don't have a Vocative form.¹⁷

¹⁴ In order to refer to grammatical Case, I will henceforth use CASE in small capital letters.

¹⁵ In ancient Bulgarian each noun had six case forms in singular and in plural, and in the then existing dual (for those who didn't include the Vocative as a case form; otherwise, it had seven different forms).

¹⁶ In fact, nowadays we can still find some examples of the Dative used for stylistic purposes (for archaistic or humoristic objectives). In (i) the noun *narodu* 'people' is in Dative as shown by the final vowel '-u':

(i) toj otdade mladija si život **narod-u**
he dedicated young his life **people-Dat**
'He dedicated his young life to the people'

I would not give further details on the types of case residues because it doesn't affect the topic of the paper.

¹⁷ For more information on the Vocative in Bulgarian, see (Pashov, 1999: 79-80; 389-395); Bojadjiev et al. (1999: 480-482).

Having described the basic formal characteristics of the Bulgarian nominlas (Gender, Number, CASE), I will now proceed to present some details on Agreement between the noun and the modifying adjective.

2.1.4. Some notes on the Adjectives and Agreement in Bulgarian

The Bulgarian adjective shows the inflectional morphology characteristic of nouns- Gender, Number, and Definiteness (see the following section 2.1.5 for details on the article) and it agrees in Gender and Number with the noun it modifies. Additionally, as in many other languages, the adjective in Bulgarian can show Degree (comparative and superlative) which is expressed analytically (14):

(14) (a) hubav	(b) po-hubav	(c) naj-hubav
beautiful	more-beautiful	most-beautiful
‘beautiful’	‘more beautiful’	‘the most beautiful’

As for its position in the DP, the adjective in Bulgarian is found pre-nominally.¹⁸ When in the Singular, adjectives have distinct endings for each Gender (15):

(15) a. Masculine:	zelen	plat	
	green-MASC.SG	cloth-MASC.SG	(‘a green cloth’)
b. Feminine	zelen-a	pol-a	
	green-FEM.SG	skirt-FEM.SG	(‘a green skirt’)
c. Neuter	zelen-o	dŭrv-o	
	green-NEUT.SG	tree-NEUT.SG	(‘a green tree’)

¹⁸ Cinque (2005) claims that there is a universally basic sequence as in (i) where nominal modifiers appear before the noun they modify:

(i) Dem > Num > A > N

Bulgarian is a language that abides to this universal unmarked pattern. Thus, all nominal modifiers appear pre-nominally in this language.

Yet, when in the Plural, there is no gender distinction revealed by the adjectival ending which adopts the form of *-i* (16):

(16) a. Masculine Plural: zelen-i plat-ove
 green-PL cloth-PL ('green cloths')

b. Feminine Plural: zelen-i pol-i
 green-PL skirt-PL ('green skirts')

c. Neuter Plural: zelen-i dŭrv-eta
 green-PL tree-PL ('green trees')

Thus, it is clear that when in the Plural, Gender is neutralized on the adjective (16). The same holds for the *Pluralia Tantum* nouns which always appear in the Plural (17):

(17) hubav-i vŭglishta
 beautiful-PL coal ('beautiful coal')

Having established the basic formal characteristics of the nominal domain in Bulgarian together with some notes on Agreement, I will now proceed to describe some of the main characteristics of the functional category of the Determiner Phrase (henceforth DP) in this language.

2.1.5. A note on the Determiner: Definiteness or “*položenie*” (‘status’)

As it has already been mentioned in the introduction to this chapter, Bulgarian is the only Slavic language (together with Macedonian) that appears to have developed a morpho-syntactic category corresponding to the Determiner. It is phonologically overt for the definite forms.

The definite article in Bulgarian derives from the ancient Bulgarian demonstrative pronouns **ТЪ** (Masc), **ТА** (Fem), and **ТО** (Neut). It is an element without prosodic independence, it must attach to a host and it can not appear in initial position. In fact, the status of the article in Bulgarian has received many labels in the literature. Some consider it a suffix¹⁹, others a particle²⁰ or a clitic²¹, and others an ending²² or morpheme²³. Yet, though historically the article was enclitic in Bulgarian (and Macedonian), it is not still that obvious.²⁴ On one hand, there are reasons to believe that it is a suffix²⁵ revealed also by the fact that it serves a grammatical function. Yet, on the other hand, it also exhibits some characteristics of a clitic (see fn. 21 and references there) because, unlike a suffix, it is an inflected form which constitutes a single accentual unit with an already existing word. Additionally, it also appears to obey Wackernagel's law²⁶ in the nominal domain because it surfaces as an enclitic element to the leftmost constituent of the noun phrase, be it a noun or an adjective.²⁷ Consider the examples in (18):

(18) a. Feminine:

- | | |
|------------------|------------------------------|
| (i) kūsht-a | (ii) kūsht-a-ta |
| (i) house-FEM.SG | (ii) house-FEM.SG-the.FEM.SG |
| (i) 'a house' | (ii) 'the house' |

¹⁹ B. Koneski (1967); H.G.Lunt (1952); F. Slawski (1954).

²⁰ L. Andreichin (1944)

²¹ For data supporting the enclitic nature of the Bulgarian definite article see Börjars (1998) and Giusti (2002).

²² Ju. S. Maslov (1956); H.I.Aronson (1968); L.Beaulieux (1950)

²³ S. Stojanov (1965) rejects the terms suffix, particle and ending and claims that the only standard term applicable to the article is morpheme.

²⁴ Eslon (1976) argues against the enclitic status of the article but also concludes that there are three reasons not to be considered a suffix neither. The reasons he gives are (i) it is an inflected form; (ii) it is added to an already existing word, and (iii) its relative position is defined in terms of a syntactic constituent (p. 276-277).

²⁵ For details supporting the suffixal character of the Bulgarian article, see Dost and Gribanova (2006); Wunderlich (2002); Franks (2001). Dost and Gribanova (2006) claim that there are phonological reasons to consider the article a suffix as it takes part in word-level phonological processes and can sometimes affect word-level stress placement (see p. 3).

²⁶ See Wackernagel (1892).

²⁷ A similar proposal is made by Börjars (1998) who claims that the position of the Balkan definite article (in Bulgarian and Macedonian) is the Wackernagel position within the NP (see p.67).

case with Catalan, French, and German, for example. Thus, in (19) we see that *bashta* ‘father’ which is Masculine and *majka* ‘mother’ which is Feminine, both take the ‘feminine’ article *-ta*:

- (19) a. (i) *bashta* (ii) *bashta-ta*
 (i) father-MASC.SG (ii) father- MASC.SG-the(FEM)SG
 (i) ‘a father’ (ii) ‘the father’
- b. (i) *majka* (ii) *majka-ta*
 (i) mother-FEM.SG (ii) mother- FEM.SG-the.FEM.SG
 (i) ‘a mother’ (ii) ‘the mother’

All of the nouns that end in *-a* or *-ja* take the article *-ta* no matter their formal gender, or their grammatical number. Thus, in (20) we see that *selo* ‘village’ is Neuter but when in the Plural it ends in *-a* so the article that attaches to its plural form is *-ta*:

- (20) a. *edn-o* *sel-o*
 one-NEUT.SG village-NEUT.SG
 ‘a village’
- b. *krasiv-i* *sel-a*
 beautiful-PL village-PL
 ‘beautiful villages’
- c. *sel-a-ta*
 village-PL-the.PL
 ‘the villages’

Similarly, all of the singular nouns that end in *-e* or *-o* take the article *-to* no matter of their grammatical gender (21):²⁸

²⁸ These facts may suggest that we are in front of a case of vowel harmony.

- (21) a. Neut: (i) neb-e (ii) neb-e-to
 (i) sky-NEUT.SG (ii) sky- NEUT.SG-the.NEUT.SG
 (i) ‘a sky’ (ii) ‘the sky’

- b. Masc: (i) star djado
 (i) old-MASC.SG grandfather-MASC.SG
 (i) ‘an old grandfather’

 (ii) djado-to
 (ii) grandfather-MASC.SG-the.NEUT.SG
 (ii) ‘the grandfather’

Normally, the nouns that end in a consonant have masculine grammatical gender. As a rule, the article that attaches to them (in Singular) is *-ŭt /-jat* (full form) or *-a/-ja* (the short form): *stol* ‘chair’ > *stol-ŭt/-a* ‘the chair’.²⁹

The singular masculine article has two forms: the full forms which contain the consonant ‘T’ (*-ŭt /-jat*), and the short (or the reduced) forms (*-a/-ja*) which do not contain ‘T’. This distinction should be made obligatory only in writing. Thus, we should write the full form of the article when the noun is a Subject or an attribute of the Subject. In the rest of the cases it is the short form that prevails.³⁰

The plural form of the article (*-ta* or *-te*) depends on the ending of the noun, that is, on the last vowel of the plural form of the noun. When the plural form of the noun ends in *-a* (or *-ta*, *-eta*, *-ishta*, *-esa*, *-ena*), the article to be attached is *-ta* (22a). If the nouns end in *-i* or *-e*, the article to be attached is *-te*:

²⁹ There is a small number of Feminine nouns terminating in a consonant such as *esen* ‘autumn’, *krŭv* ‘blood’, *nosht* ‘night’. In this case, the article that attaches is *-ta* for the feminine but in order to be differentiated from the article that attaches to the nouns ending in *-a/-ja*, the *-ta* that attaches to these nouns is always stressed: *nosht* ‘night’ > *nosht-TÀ* ‘the night’; *esen* ‘autumn’ > *esen-TÀ* ‘the autumn’, etc.

³⁰ Pashov (1999: 75) claims that this should not be considered as supporting the presence of a case system in Bulgarian, i.e., Nominative equalling the full form and Accusative the short one.

(22) a. [-*ta*]

- | | | |
|---------------------|-----------------|-------------------------|
| (i) pil-e | (ii) pil(e)-eta | (iii) pil(e)-eta-ta |
| (i) chicken-NEUT.SG | (ii) chicken-PL | (iii) chicken-PL-the.PL |
| (i) 'a chicken' | (ii) 'chickens' | (iii) 'the chickens' |

b. [-*te*]:

- | | | |
|-------------------|----------------|------------------------|
| (i) gor-a | (ii) gor-i | (iii) gor-i-te |
| (i) forest-FEM.SG | (ii) forest-PL | (iii) forest-PL-the.PL |
| (i) 'a forest' | (ii) 'forests' | (iii) 'the forests' |

A final and last characteristic of the definite article that must be mentioned in this context is its use to denote generics, as it is the case in Catalan or Spanish. With appropriate predicates, a singular definite article in a nominal construction can denote all of the objects of the class the noun belongs to and not only one concrete member of the class. Consider the following examples, interpreted in the generic reading:

(23) a. **Kuch-e-to** e naj-vernijat prijatel na **chovek-a**

Dog-NEUT.SG-the.NEUT.SG is the most faithful friend of **man-the.MASC.SG**

'The dog is the most faithful friend of the man'

b. **Zlat-o-to** e blagoroden metal

Gold-NEUT.SG-the.NEUT.SG is a noble metal

'The gold is a noble metal'

c. **Sol-ta** e neobhodima podpravka

Salt-FEM.SG-the.FEM.SG is a necessary spice

'The salt is a necessary spice'

The absence of the article in the above examples leads to ungrammaticality because bare nouns cannot be found in preverbal position in Bulgarian when the generic meaning is intended (24a). Yet, bare nouns can be found preverbally if they refer to an indefinite noun (24b):

(24) a. ***Kuch-e** e naj-vernijat prijatel na **chovek-a**
Dog-NEUT.SG is the most faithful friend of **man-the.MASC.SG**
 *‘Dog is the most faithful friend of the man’

b. **Dete** vlezna v staja-ta
 child-NEUT.SG entered in room-FEM.SG-the.FEM.SG
 ‘A child entered the room’

Bulgarian lacks an overt realization of the indefinite article, i.e. the indefinite form of the article is phonologically null (25a). There are some grammarians who claim that apart from the phonologically null indefinite form (or the Zero article), the numeral *edin* ‘one’ in Bulgarian, which is inflected for the three genders in the Singular, should be considered another variant of the indefinite article³¹ (25b):

(25) a. **Masc:** bashta **Fem:** kūshta **Neut:** more
 father house sea
 ‘a father’ ‘a house’ ‘a sea’

b. **Masc:** edin bashta
 one-MASC.SG father-MASC.SG
 ‘a/one father’

Fem: edn-a kūshta
 one-FEM.SG house-FEM.SG
 ‘a/one house’

³¹ Friedman (1976); Mayer (1988:121). Additionally, Avgustinova (1998) claims that the status of ‘*edin*’ (one) as an indefinite article is still an ongoing controversial issue.

Neut: edn-o more
 one-NEUT.SG sea-NEUT.SG
 ‘a/one sea’

Thus, there is a dispute among linguists as far as whether the numerals in (25b) should be considered alternative forms of the indefinite article or not.³² In my opinion, it is not advisable to claim that there is a triple division in the category Determiner with two members (i) the unmarked bare form of the word with a phonologically null article (25a), and (ii) the numeral (25b) representing the Indefinite article on one hand, and the post-positive Definite article, on the other. Additionally, it would also be strange to claim that the definite article takes the form of a bound morpheme whereas the numeral, if complementary to the indefinite article, should be a free morpheme. What’s more, there are further reasons to support the claim that the numeral cannot substitute the indefinite article, which is phonologically null in Bulgarian. Though the phonologically null article denotes indefiniteness together with non-specificity, the numeral form can denote specificity (26):

(26) edn-a žena mi kaza tova
 one-FEM.SG woman-FEM.SG me-DAT.CL said this
 ‘a/one woman told me this’
 (*one specific woman that I have in mind/that I saw*)

Additionally, the numeral (27a), like the definite article (23) can have a generic reading, which is not possible with the indefinite article (the phonologically null form) as shown in (27b):³³

³² Bojadžiev et al. (1999), and Georgiev (1999), for example, claim that the numeral should not be considered an alternative form of the indefinite article.

³³ Further reasons to claim that the indefinite article cannot be substituted by the numeral in Bulgarian also come from the fact that whereas the latter is acceptable with a noun in subject position (a) or as an adverbial modifier (b), the former is not (a’, b’):

a. Edin starets reche...
 one-MASC.SG old-man said... (An old man said...)
 a’. *Starets reche...
 old-man said...

(27) a. Edn-o dete nikoga ne lūže
 One-NEUT.SG child-NEUT.SG never not lies

‘A child never lies’

b. *Dete nikoga ne lūže
 child- NEUT.SG never not lies

*Child never lies

Thus, I would rather prefer to reject the view that the numeral is an alternative form of the indefinite article.³⁴ Hence, I would use the term ‘the article’ to refer to the definite article because the indefinite article, in my opinion, lacks a phonetic realisation (25a) though it is syntactically present.

Having described the general characteristics of Bulgarian DP, I will now proceed to present Deverbal nominals, as it is the prime concern of this study.

2.2. General Characteristics of Deverbal Nominals in Bulgarian

Nomina Deverbativa or ‘deverbal nominals’ in Bulgarian is a topic that still gives rise to discussion and contradictory opinions among specialists. We can just begin this introduction by saying very generally that there are two main kinds of deverbal nominals: the so-called –NE /-NIE types and the “other-suffix” types.

There is some controversy among Bulgarian grammarians on the issue of whether or not –NE/-NIE nominals form a natural class and can both be labelled *deverbal nominals*. Forms showing the suffix –NE (henceforth –NE nominals) are unanimously claimed to be deverbal nouns because they are claimed to obtain

b. V edn-a staja sedjat tri detsa
 in one-FEM.SG room sit-3PL three child-PL
 ‘There are three children sitting in a room’

b’. *V staja sedjat tri detsa
 in room sit-3.PS.PL three children

³⁴ For more details supporting such a view, see Georgiev (1999: 274-275).

from the non-finite form³⁵ of any verb without exception.³⁶ Pashov (1999: 209) claims that in modern Bulgarian the label ‘*deverbal nominals*’ should only be applied to those nouns formed by the suffix *–NE*. According to him, these are the only forms that can really be related to the verbal paradigm due to the fact that they preserve the lexical characteristics of their verbal base. Thus, *–NE* nouns could name actions, events or states and maintain the thematic grid of the verb they derive from. Examples of the uncontroversially deverbal *–NE* nominals are given in (28 a, b, c):

(28) a. *resh-ava-NE*

solve-NON-FINITE-NE

‘solving’

b. *oprosht-ava-NE*

forgive-NON-FINITE-NE

‘forgiving’

³⁵ In Bulgarian, each state of affairs can be represented by a pair of two verbs: a finite and non-finite one. Both of the verbs refer to the same ‘action’ and have the same lexical meaning, the only difference being their different grammatical form: finite or non-finite. An example is given in (i):

(i) <i>kaža</i>	<i>–kaz-va(m)</i>	<i>pobedja</i>	<i>–pobežda-va(m)</i>
say-FINITE	– say-NON-FINITE(1PS.SG)	win-FINITE	– win-NON-FINITE(1PS.SG)

The finite forms reflect the state of affairs that the verb denotes as a whole, from its beginning to its end. The non-finite verbs, on the other hand, represent the ‘action’ in its process of completion. According to Pashov (1999) ninety per cent of the verbs in Bulgarian can be organised in such pairs where the non-finite verb is always obtained by the finite one with the help of ‘aspectual endings’. Some of the suffixes which turn a finite verb into non-finite without changing its lexical meaning are: *-a-(m)*, *-ja-(m)*, *-va-(m)*, *-ava-(m)*, *-java-(m)*, *-uva-(m)*, where the type of ending depends on the conjugation of the corresponding verb. In fact, there are cases where from one finite verb we can obtain more than one non-finite verbs (see Pashov, 1999: 135). The rest of the verbs that do not enter in a finite- non-finite pairs are verbs without any ‘form endings’ and they are usually non-finite:

(ii) <i>peja</i>	<i>cheta</i>	<i>jam</i>
sing	read	eat

According to Pashov (1999), there are about fifty primary verbs without any endings which belong to the finite category (*kupja* ‘buy’, *vidja* ‘see’, *chuja* ‘hear’, *skoča* ‘jump’, etc.). Additionally, there are some verbs of foreign origins which can be used as both finite and non-finite (the so called ‘bi-aspectual’ verbs). These are the ones formed by the suffix *–ira-(m)*, and *–izira-(m)* such as *reag-iram* ‘react’, *harakter-iziram* ‘characterise’, etc. For more details on these verbs, see Pashov (1999: 137-138), Bojadjiev et al. (1999:489-490).

³⁶ Dimitrova-Vulchanova and Mitkovska (2006) claim that some psychological predicates from the “fear” class don’t always give a *–NE* nominal. Yet, providing the appropriate context, they do.

- c. gone-NE
persecute-NON-FINITE- NE
'persecuting'

With respect to the –NIE forms, authors such as Kaldieva-Zaharieva (1999) maintain that they should be regarded as deverbal as the –NE forms. Some examples of the –NIE nominals are the following (which correspond to the –NE nouns in (28)):

- (29) a. reshe-NIE
solve-FINITE- NIE
'solution'
- b. oposhte- NIE
forgive-FINITE- NIE
'forgiveness'
- c. gone- NIE
persecute-NON-FINITE- NIE
'persecution'

For many Bulgarian linguists, the difference between the –NIE and the –NE nominals lies in the fact that the –NIE suffix seems, to many, more 'nominal' than the –NE one. Thus, many of the –NIE nouns refer to results (29) *versus* the –NE ones which denote processes (28). As for the –NE nominals, their process denotation may be due to the fact that they derive from the non-finite form of the verb and thus reflect the non-terminative status of the 'action'. The –NIE nouns, on the other hand, cannot receive a similar explanation due to the fact that they can derive from both finite and non-finite verbal bases. As we shall see in chapter 4, their result denotation is due to their syntactic derivation, i.e, to the fact that they are formed on the past passive participle of the corresponding verb in my analysis.

As for the nominals we have loosely labelled as “the other-suffix” forms, these are also nouns deriving from a verb but appear with a great variety of suffixes such as **-A**, **-BA**, **-EŽ**, **-KA**, **-IE**, **-ITBA** and **-NITSA**, among many others. They are not unanimously labelled ‘deverbal nominals’ due to the fact that they have a lexicalised meaning which makes grammarians reject them as forms of a closed verbal paradigm. Some examples of “the other-suffix” deverbal nominals are the following:

(30) a. grad-EŽ

construct-EŽ

‘construction, building’

b. kos-ITBA

mow-ITBA

‘mowing’

c. pad-EŽ

fall-EŽ

‘CASE’ (Dative, Accusative, etc.).

Before I go on, I would like to make a distinction between the labels ‘deverbal nominals’ and ‘belonging to the verbal paradigm’ so that confusion can be prevented. What I simply mean by the term ‘deverbal nominal’ is any noun that derives from a verb. However, this doesn’t imply, in my opinion, and as has been wrongly interpreted by many Bulgarian grammarians, a constituent that belongs to the verbal paradigm. Additionally, as we shall see in the next section, there are sufficient reasons to suggest that all of the nominalizations examined by now (the **-NE**, **-NIE**, and the ‘other-suffix’ ones) belong to the nominal domain and not to the verbal paradigm. When I use the term ‘deverbal’ I in no way equate it with ‘belonging to the verbal paradigm’. Thus, I consider all of the nominals (the **-NE**, the **-NIE**, and the ‘other-suffix’ ones) nominalizations, with

the only difference between them being the degree of substantivization of the verbal action. Additionally, it can be also claimed that the degree of substantivization may depend on the type of the verbal base (finite vs. non-finite or simply the root), on the syntactic properties of their derivation, and on the semantic characteristics of the verb itself.³⁷

2.2.1. The nouns ending in –NE³⁸

As it has already been observed, nominalizations are derived by the process of suffixation. The base for forming these nouns is the non-finite form of the verbs (see footnote 35) where the nominals are obtained by adding the suffix –NE directly to the present verbal base in the case of verbs of the third (31a) and first (31b) conjugation or previously adding the vowel –E to the present verbal base when the verb is from the second conjugation as in (31c) below.³⁹

(31) a. 3rd conjugation

(i) kritik-uva-NE

criticise-NON-FINITE-NE

‘criticising’

(ii) prod-ava-NE

sell-NON-FINITE-NE

‘selling’

a’. *Present verbal base* (3PS.SG present tense)

(i) kritikuv-A (criticise-3.PS.SG)

‘criticises’

(ii) prodav-A (sell-3.PS.SG)

‘sells’

³⁷ Georgiev (1999) suggests that the the degree of substantivization of the nominalization depends on the semantics of the verb and on the type of the nominalizing suffix (see pp. 146-151).

³⁸ According to Kaldieva-Zaharieva (1999) the –NE nominals are 15000 more or less.

³⁹ There are three verbal conjugations in Bulgarian according to the ending of the present verbal base (which coincides with the form of the third person singular present tense). The verbs which have –E as their present ending (*chet-E* ‘read-3PsSg-E ‘reads’) belong to the first conjugation. The verbs from the second conjugation end in –I (*govor-I* ‘speak-3PsSg-I ‘speaks’), and those from the third conjugation in –A/-JA (*razkazv-A* ‘tell-3PsSg-A ‘tells’).

b. 1st conjugation

chet-E-NE

read-e-NE

‘reading’

b’. Present verbal base

chet-E (read-3.PS.SG)

‘reads’

c. 2nd conjugation

(c) vŭrv-E-NE

walk-e-NE

‘walking’

c’. Present verbal base

vŭrv-I (walk-3.PS.SG)

‘walks’

As for the nature of the vowel *-E* that is inserted in case of second conjugation verbs (31c), we shall see that we have evidence to claim that it is the thematic vowel (cf. § 4.1). As for the rest of the conjugations, the suffix *-NE* directly attaches to the present verbal base (31a, b).

As far as the Gender of these nouns is concerned, in section 2.1.1 we saw that all of them are Neuter because they end in the vowel *-E*. Thus, all of them should be modified by adjectives, demonstratives, numerals, etc in the Neuter. As far as Number is concerned, some *-NE* nominalizations lack Plural (see example (32a, b) below). This happens with some intransitive verbs which, when nominalized, result in an abstract noun. Those deverbals that admit the plural appear with the plural inflectional suffixes *-ija /-eta* as in example (33a, b). The definite determiners are *-to* for the singular forms and *-ta* for the plural. Consider the following examples:

(32) Abstract Singulars

- (a) tova negov-o postojann-o misl-e-NE za
 semejstvo-to
 this-NEUT.SG his-NEUT.SG constant-NEUT.SG think-e-NE.NEUT.SG for
 family.NEUT.SG-the.NEUT.SG.

‘This his constant thinking of the family’

- (b) mechta-NE-TO na Maria da stane izvestn-a
dream-NE-the.NEUT.SG of Mary to become famous-FEM.SG
‘The dreaming of Mary to become famous’

(33) –NE *Plurals*: -ija /-eta

- (a) kla-N(Ě)-ETA-TA na novoroden-i zajts-i
slaught-NE-PL-the.PL of newborn-PL rabbit-PL
‘the slaughtering(s) of newborn rabbits/ the slaughters of newborn rabbits’

SG : *kla-NE* (slaughter/ing) PL : *kla-N-eta* (slaughters/slaughterings)

- (b) izprashta-N(Ě)-IJA-TA na pism-a do Amerika
send-NE-PL-the.PL of letter-PL to America
‘The sending(s) of letters to America’

2.2.2. The nouns ending in –NIE:

Though considered an ancestor of the nominalizing suffix –NE, –NIE is claimed to attach to both finite and non-finite forms of the verb.⁴⁰ What is typically claimed for the –NIE nominalizations is the fact that they have lost their verbal character because they do not denote the verbal action but some object or an abstract concept (Pashov, 1999: 213). Thus, whereas *sūbira-NE* (collecting) denotes an action, *sūbra-NIE* (meeting, assembly) denotes an abstract concept.

As far as gender is concerned, we have previously commented that as the final vowel of –NIE is ‘E’, then these nouns should have a Neuter grammatical

⁴⁰ In contrast to –NE, the –NIE suffix is not productive any more in Bulgarian. Additionally, as this suffix has a Russian origin, there is also the tendency to replace the nouns in –NIE by other synonymous words formed by a variety of suffixes: *stremle-NIE* > *strem-EŽ* (striving, aspiration); *otmene-NIE* > *otmnjan-A* (help, assistance), etc.

gender. Contrary to the –NE class, the –NIE nouns always have a plural form. In the Plural, the marker is –*ja*/ (*-nija*) which can sometimes lead to confusion between the –NE type nominals and the –NIE ones when in Plural. Thus, in (34a) we have the Plural of the –NE nominal and in (34b) we have the Plural of the –NIE one, both looking identical and the only difference is the stress:

(34) a. *sèche*-NE (Sg) > *sèche*-N(È)-IJA (Pl)

<i>fell</i> -NE	<i>fell</i> -NE-PL
‘felling’	‘fellings’

b. *sechè*-NIE (Sg) > *sechè*-N-IJA (Pl)

<i>fell</i> -NIE	<i>fell</i> -NIE-PL
‘section’	‘sections’

2.2.3. The nouns formed by other suffixes

As mentioned previously, there are many nominalizations formed by a variety of suffixes like –A, –BA, –EŽ, –NIK, –NITSA, –KA, –ISHTE, –NJA, –ALNJA, –TEL, –ANT, etc. These nominalizations will be labelled ‘other-suffix’ nominals. Here, I would also include the nominalizations formed by a zero suffix [–Ø], i.e. that lack an overt suffix.

As far as the semantics of these nouns is concerned, they may be divided in the following groups:

(35) ‘*Other-suffix*’ nominals:

(a) **Agents**⁴¹ (*bor*-ETS ‘fight-er’, *nastroj*-CHIK ‘adjust-er’, *greb*-ETS ‘row-er’, *met*-ACH ‘sweep-er’, *pisa*-TEL ‘writ-er’, *okup*-ANT ‘occup-ant’, *nos*-ACH ‘carri-er’, *brūsn*-AR ‘barber’, etc.):

⁴¹ For more detailed information on the semantics of the agentivity suffixes in Bulgarian, see Georgiev (1999:136-142).

Suffixes: -ACH, -TEL, -AR, -NIK, -ETS, -DŽIJA (-CHLIJA), -CHIK, -JAK, -AK, -KO, etc.

(b) Patients (plenn-IK, etc.) ‘captive’

(c) Instruments (bršn-ACH ‘razor’, met-LA ‘broom’, greb-LO ‘oar’, vürt-EL-EŽ-KA⁴² ‘roundabout’, otvarja-CHKA ‘tin opener’, etc.)

Suffixes: -ILO, -ALO, -LA, -LKA, -KA, -ITSA, -ARKA, -ACHKA, -ETS, etc

(d) Objects (prikaz-KA ‘tale’, hran-A ‘food’, plet-KA/plet-IVO ‘knitting, stitch’, stro-EŽ ‘building’, postroj-KA ‘boulding’, etc).

Suffixes: -KA, -A, -IVO, -EŽ, etc.

(e) Substances: (gor-IVO ‘fuel’, lep-ILO ‘glue’, gorch-ITSA ‘mustard’, etc.)

Suffixes: -IVO, -ILO, ITSA, -OVKA, -INA, -ILKA, -KA, etc.

(f) Abstract concepts (ljub-OV ‘love’, bol-KA ‘pain’, glavobol-IE ‘headache’, etc.)

Suffixes: -OST, -ETS, -IJA, -KA, -IE, etc.

(g) Actions (predatel-STVO ‘betrayal’, prodaz-ŽBA ‘sale’, grab-EŽ ‘theft’, rast-EŽ ‘growth’, etc.)

Suffixes: -EŽ, -(Ž)BA, -ITBA, -AVA, -ITSA, -KA, etc.

⁴² For more detailed information on complex suffixes, see Barbolova (1999).

(h) Places (klann-ITSA ‘slaughterhouse’, rabot-ILNITSA ‘workshop’, chak-ALNJA ‘waiting room’, skriva-LISHTE ‘hiding-place’, let-ISHTE ‘airport’, etc.)

Suffixes: -ISHTE, -NJA, -ALNJA, -ILNJA, -NITSA, etc.

Among this group of nominalizations there are some whose suffix absorbs a semantic participant of the verb or an adjunct of the verbal base which is also the case with the Catalan suffixes **-(D)OR/-ER/-AIRE**. Thus, in (36a, b, c) we have the Bulgarian examples of such suffixes whereas (36a’, b’, c’) present the Catalan correspondences:

(36) **Agentive value:**

a. pisa-tel	a’. escript-or
write-TEL	write-OR
‘writer’	‘writer’

‘The person who writes’

Locative value:

b. zakusva-lnja	b’. abeura-dor
breakfast-LNJA	drink-DOR
‘the place where one breakfasts’	‘the place where one drinks’

Instrumental value:

c. otvarja-chka	c’. obri-dor
open-CHKA	open-DOR
‘(tin) opener’	‘opener’

‘a tool for opening (tins)’

As for Number, all of these nouns accept pluralization in the same way as the –NIE ones. The type of the plural ending depends on the gender of the noun (cf. § 2.1.2).

Having shown the general characteristics of the three types of nominalizations examined in this paper, I would now present some evidence supporting the fact that all of them belong to the nominal domain but not to the verbal paradigm.

2.3. Against the hypothesis that nominalizations in –NE and -NIE belong to the verbal paradigm

We have seen that many linguists defend the view that the –NE nominals should be regarded as belonging to the verbal paradigm similar to the substantivized infinitives in other languages (Pashov (1999); Steinke (1999); Kaldieva-Zaharieva (1999), among many others).

There are also linguists who claim that not only the –NE nominals but also the –NIE type should be included in the verbal paradigm (Kaldieva-Zaharieva (1999)). However, almost all of the Bulgarian grammarians share the opinion that this should not be the case with the ‘other-suffix’ nominalizations such as those presented in section 2.2.3.

What I would like to propose here is that neither the –NE nominals, nor the –NIE ones should be regarded as belonging to the verbal paradigm. The reason to arrive at this conclusion can be found in the fact that in many cases the nominalizations in –NE (or –NIE) change the meaning of the originating verb by either reducing it or amplifying it. In case these nominalizations belonged to the verbal paradigm, they should have been able to conserve all of the verbal meanings. Yet, as we should see below, this is not usually the case.

2.3.1. Semantic modification

Often, the deverbal nominals do not take all of the verb’s meanings but just one or few of them, i.e, the nominalizations present a semantic reduction of the originating verb. To put some examples, in (37a) I show the meanings of the verb

disham ‘breathe’ and in (37a’) I show that the –NE nominal *disha-NE* ‘breathing’ takes just the first meaning of this verb. Similarly, in (37b) I present the semantics of the verb *unishtožavam* ‘destroy’ and show in (37b’) that the –NIE nominal *unishtože-NIE* ‘destruction’ conserves just some of its meanings. Finally, in (37c) the semantic connotations of the verb *prikazvam* ‘talk’ are offered after which in (37c’) we can observe that the ‘other-suffix’ –KA nominal *prikaz-KA* ‘tale, story’ conserves just two of the verb’s meanings.

- (37) a. [DISHAM] ‘breathe’: (i) draw a breath; (ii) live, exist; (iii) express
 a’. –NE **nominal**: *disha-NE*: (i) breath, respiration
- b. [UNISHTOŽAVAM] ‘destroy’: (i) destroy, make away with; (ii) annihilate; (iii) (for fire) devour; (iv) crush, run down; (v) (for contracts) vitiate, invalidate; (vi) obliterate; (vii) (for power) overthrow; (viii) (food, liquids) finish off; (ix) (obstacles) break down; etc.
- b’. –NIE **nominal**: *unishtože-NIE* ‘destruction’: (i) destruction; (ii) annihilation; (v) vitiation, invalidation;
- c. [PRIKAZVAM] ‘talk’: (i) talk, speak; (ii) say; (iii) tell; (iv) talk, converse;
- c’. ‘*other- suffix*’ **nominal**: *prikaz-KA* ‘tale, story’: (iii) tale, story; (i) talk

Sometimes, however, it is the case that the nominalizations amplify the meaning of the verb they derive from. An example is given in (38) with (38a, a’) making reference to a –NE nominal; (38b, b’) referring to a –NIE noun, and (38c, c’) to an ‘other-suffix’ nominalization:

- (38) a⁴³. [CHETA] ‘read’: (i) read; (ii) (for a prayer) say;
 a’. –NE **nominal**: chete-NE ‘reading’: (i) reading; (ii) In Sg. only: a school subject from Primary School where children obtain and practice their capacity to read. (iii) A literary meeting where authors gather together and read their works.
- b. [PORŪCHVAM] ‘order’: (i) order; (ii) tell, ask (s.o. to do s.th)
 b’. –NIE **nominal**: porŭche-NIE ‘errand, mission, commission’: (i) errand, mission, commission; (ii) instructions; (iii) message
- c. [PORŪCHVAM] ‘order’: (i) order; (ii) tell, ask (s.o. to do s.th)
 c’. ‘**other-suffix**’ **nominal**: porŭch-KA ‘order’: (i) order; (ii) errand, commission; (iii) (for clothes) made to measure; (iv) bespoke.

We can observe that there is a great similarity between the three types of nominalizations studied here, which eliminates the possibility of differentiating them as belonging or not to the verbal paradigm. Additionally, it is also clear that, though deriving from a verb, these nouns belong rather to the nominal domain as they are incapable of conserving the exact number of semantic connotations of the originating verb, together with the fact that they also behave syntactically like nouns.

2.3.2. A special case of –NE nominals

As I will defend in chapter 4, there is a sub-group of –NE nominals which do enter the verbal paradigm. This is the group of the gerundive –NE constructions. I will claim that apart from the derived –NE nouns, there is another type of –NE construction which takes over some gerundive functions (see § 4.1.3). In fact, this is what may have lead Bulgarian grammarians to claim that such nominalizations should belong to the verbal paradigm. However, a

⁴³ The example is taken from Kaldieva-Zaharieva (1999: 217).

distinction should be made between the gerundive –NE formations which do belong to it, as any gerund, and the deverbal –NE nominals which, as we saw in section 2.3.1 above, do not.

As for the –NIE nominals, the fact that some grammarians include them in the verbal paradigm as well might be due to the fact that such nouns derive from the past passive participle of the corresponding verb as I will argue. Thus, the close relation between past passive participles and these nouns may have misled linguists to include them as part of the verbal paradigm. However, being nominalizations, they are not (cf. § 2.3.1).

Having cursory described the basic morpho-syntactic data on the Bulgarian nominal system together with some lines of assumptions on the nominalizing process, I will now proceed to offer the theoretical framework adopted in this work (chapter 3) before I discuss my syntactic analysis of Bulgarian nominalizations (chapter 4).

CHAPTER 3: THEORETICAL FRAMEWORK TO FOLLOW

The interest in nominalization processes has increased over the years since the first work of Robert Lees in 1960. Since then, numerous proposals have been made in order to explain the nature of apparently category-changing derivational affixes and capture the fact that sentences and nominalizations appear to share many common properties at the interpretive level (see Randall (1984), Sproat (1985), Zucchi (1989), to mention only a few). Yet, nominalizations were attributed either an exceptional treatment (which increasingly seemed conceptually inadequate)¹, or there was an abstraction introduced, which made nominalizations seem just like sentences.

It is a well-known fact since Lees (1960) and Chomsky (1970), that verbs and nouns share fundamental argument-taking properties. Apart from the failure of nouns to take prepositionless DPs, everything seems completely parallel (examples from Grimshaw (1990: 46-47)):

(1) i. **CP complement:**

- a. with verbs: The physicists claimed that the earth is round.
- b. with nouns: The physicist's claim that the earth is round.

ii. **Infinitival complement:**

- a. with verbs: They attempted to leave.
- b. with nouns: Their attempt to leave.

iii. **PP complement:**

- a. with verbs: The train arrived at the station.
- b. with nouns: The train's arrival at the station.

¹ Cf Roesper (2004).

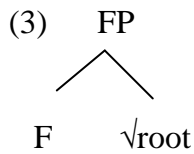
The different theoretical frameworks that have been developed along the evolution of generative grammar had resulted in different proposals, both in conception and in spirit, since Lees (1960) first study on English nominalizations. Within the framework set by *Syntactic Structures*, Lees' work has generally been considered to be the first attempt in the history of generative grammar to give extensive rule motivations and derivations for a specific type of construction. In his work, Lees claimed that nominalizations of the types exemplified in the (b) constructions above are derived from the sentential constructions of the types (a) and thus inherit the verb's arguments by postulating a proper sentence inside the NP. The spirit of this approach may arguably be said to continue in some current theories of nominalization, which do not posit a whole sentence as part of the nominalization, but claim that there is a hidden VP in nominal structures that can be very abstractly represented as in (2), where irrelevant details are omitted:²

(2) [DP ... [NP ... [... VP]]]

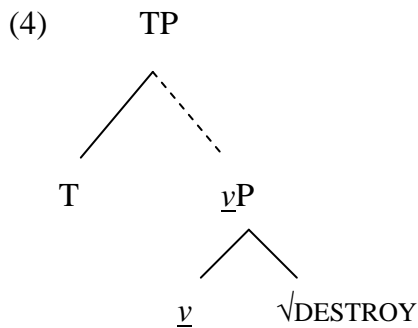
A decade after Lees' pioneering study, Chomsky (1970) proposed that a common abstract syntactic notation, X-bar-theory, could represent both the structure of the lexical categories that constitute the core elements of sentences and nominalizations. If a lexical element XP surfaces as VP, there is accusative case assigned to the internal argument of the verb: [*the enemy* [*destroyed the city*_{ACC}]VP]. If the XP surfaces as a NP, this case assignment is blocked and a preposition must be inserted: [*the enemy's destruction of the city*]_{NP} vs. * [*the enemy's destruction the city*]_{NP}. Although the bulk of Chomsky's work was devoted to argue that nouns should directly enter the lexicon as such, and thus they are not derived transformationally, this approach can be said to be continued in some recent Distributed Morphology accounts, where lexical categories like verbs and nouns are seen as a combination of category neutral roots plus functional layers F as in (3):³

² See Giannakidou and Rathert (2005).

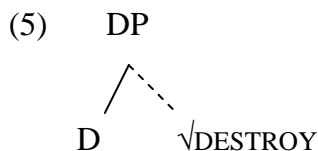
³ See Giannakidou and Rathert (2005) and references cited there.



A lot of research has been done on the nature of F (Harley and Noyer (1997, 1998, 1999, 2000); Alexiadou (2001); Marantz (1997); etc.). There is agreement that in the verbal domain F corresponds to \underline{v} . Thus, [*the enemy* [\underline{v} P *destroyed the city*_{ACC}]] conforms to the following abstract architecture:



In the nominal domain, F is considered to be D. Thus, [*the enemy's destruction of the city*]_{DP} has the following representation:



In (5), adjustment morphological rules will spell out *destroy*, directly or indirectly dominated by D, as *destruction*.

Thus, it is clear that in analyzing nominalizations, there are two conceptual routes to follow. If we follow Lees (1960), we should claim that there is a verbal projection inside the nominalization that delivers its verbal traits. Yet, following some of Chomsky's (1970) suggestions one may conclude that nouns and verbs are

category neutral and that the difference between verbs and deverbal nouns is due to a higher functional structure in abstract syntax.

In this paper, I adopt the latter option. Following this line, I will depart from the assumption that thematically-related lexical items share a set of category-neutral stems with a specific theta-grid (Piccolo 1991: 279). I further follow Alexiadou (2001) who claims, similarly to van Hout and Roeper (1998), that the behavior of nominals is linked to the properties of the features in the functional layers of the construction (T, D, Asp, v, etc.). Furthermore, it will be suggested that nominals differ depending on the functional layers they contain and on the feature specification of these layers, as suggested in Alexiadou (2001) (cf. § 3.2.1). Yet, contrary to Alexiadou (2001) and Marantz (1999), I will try to show that not only roots, but also stems can be modified in syntax. A similar proposal is made in Ferrari (2005), although she considers that only stems are modifiable in syntax and not roots.

The structure of this chapter is as follows. In the next section I will discuss some general proposals on the functional structure of DP (§ 3.1.1) together with some details on Grimshaw's (1990) analysis of nominalizations (§ 3.1.2). The following section will provide some general and more recent assumptions on the nominalizing process as those made by Alexiadou (2001) (§ 3.2.1) and Ferrari (2005) (§ 3.2.2). Some problems to Grimshaw's (1990), Alexiadou's (2001) and Ferrari's (2005) analyses will be mentioned in section 3.2.3. Finally, section 3.3 is devoted to discussing previous analyses on Bulgarian nominalizations.

3.1. Some general proposals on Nominalizations and the functional structure of DP

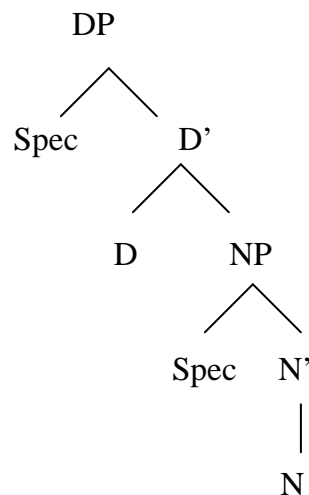
3.1.1. The structure of the DP

Since Chomsky's (1986) it has generally been assumed that functional elements like complementizers and auxiliaries project to the phrasal level as lexical

categories do, constituting the extended projection of a lexical head and conforming to X-bar schema.

Within the nominal domain, Abney (1987), based on previous work on Szabolcsi (1983) for Hungarian, presents theoretical and empirical arguments to assume that a functional category, a Determiner Phrase (DP), is the dominating category in nominal structures.⁴ The DP is considered the extended and maximal projection of the head N thus unifying the treatment of nominal constructions and clauses. The syntactic representation is given in (6):

(6) Abney (1987)



Moreover, it has further been suggested that only fully developed DP structures can be arguments of predication, whereas bare NPs are nominal predicates (i.e, non-arguments). That is, it is the selection of the article that causes a shift of a predicational NP element into an argument DP, a proposal that provides further semantic reasons for postulating a DP.⁵

Abney (1987) also provides morphological evidence for postulating a DP projection by examining some crosslinguistic data. In Turkish, as well as in Bulgarian, there is a DP-internal agreement where the Possessor in Genitive agrees

⁴ Cf also Szabolcsi (1983) and Hellan (1986) for earlier proposals on the Determiner as a syntactic projection.

⁵ See Szabolcsi (1987), Abney (1987), and Longobardi (1994), among others.

in Number and Gender with the N. Similar proposals have been made previously by Szabolcsi (1983) for Hungarian where the head N agrees with the possessor in person and number. The following examples in Bulgarian exemplify this type of agreement:

(7) a. Ivan-ov-a -ta sestra
Ivan-GEN-FEM.SG-the.FEM.SG sister-FEM.SG
Ivan's sister

b. Ivan-ov-i-te sestr-i⁶
Ivan-GEN-PL-the.PL sister-PL
Ivan's sisters

Bernstein (2003), among others, presents further syntactic motivation in support of the DP hypothesis. She claims that arguments in the nominal domain are hierarchically arranged as they are in the clause.⁷ Along the years there have been extensive discussions on the structural position of the arguments of N. Ritter (1988), for example, suggests that the subject argument of a DP (a possessive) is generated in Spec, NP and the object arguments are complements of N, following the VP-Internal Subject Hypothesis previously suggested by Koopman and Spotiche (1991) in their analysis of sentential structures.⁸ Longobardi (2003) has claimed that Possessors are higher than notional subjects such as Agents or Experiencers, and those in turn are higher than internal arguments. In order to prove this generalization, he presents evidence involving the interpretation of possessives and binding.

⁶ Remember that Gender distinctions are lost when the noun is in the plural in Bulgarian.

⁷ On argument structure in the nominal domain, see Grimshaw (1990), Piccolo (1991), Valois (1991), Siloni (1991, 1994), Taraldsen (1990), Giorgi and Longobardi (1991). Bernstein (2003) offers examples like the following, adapted from Chomsky (1970):

(i) Rome destroyed Carthage

(ii) Rome's destruction of Carthage

⁸ Koopman and Spotiche (1991) propose that the internal and external arguments in the clause are generated VP-internally. Thus, the subject is in Spec,VP and not in Spec,IP as had previously been assumed.

Another issue that has triggered extensive discussion is the position of the article and the types of movement operations that take place to account either for being phonologically covert or for appearing at the left or at the right of N when overt. Arguments for N raising to D (N-to-D head raising) have been proposed for Romance languages in Longobardi (1994, 1995), Bernstein (1991b); for Hebrew in Ritter (1988, 1991) and Siloni (1991), and for Scandinavian languages in Taraldsen (1990), Desling (1988), Santelmann (1993) and Kester (1993). Longobardi (2003) claims that there are three types of N-to-D raising identified in the literature (Rumanian Ns with the enclitic article; the Semitic construct state, and Romance proper names). In these cases, it has been argued that the features of D attract N, following Chomsky's (1995) proposal that features in functional projections can be strong or weak, the former triggering overt movement. Against this view, others have proposed a phrasal movement inside DP, following Szabolsci (1983) who first proposes DP-internal phrasal movement claiming that Spec, DP, in parallel to Spec, IP, is an 'escape hatch' for extraction from DP. This idea was subsequently adopted by Valois (1991) for French. Cinque (2000) claims for an XP movement only inside the DP as well. For him, everything can be derived by successive leftward movement of larger and larger XPs. The same remnant movement (but without pipe-piping the containing phrase) may be involved in the traditionally considered N to D raising. I will also defend the view that movement is of the phrasal type only (see chapter 4).

The position of the Adjectives inside the DP has also been extensively discussed. It is assumed that Adjectives in the nominal domain correspond to Adverbs in the clausal one. Jackendoff (1972) suggests that there is a fixed left-to-right sequence of adjectives paralleling that of adverbs. Cinque (1994) also proposes that Adjectives in the DP are organized according to a universal hierarchy that relates to their semantic properties.⁹ The basic order of the Adjectives is prenominal. Following this assumption, and on observing a wide range of Romance varieties, Bernstein (2003) further suggests that there is a parametric variation as to how high an N raises in order to derive the post-nominal position of Adjectives in

⁹ Sproat and Shih (1988) also suggest that adjectives of absolute properties such as colour and shape are closer to the head than adjectives for relative properties (quantity and size).

Romance. Thus, adjectives have greater tendency to precede the N in French *versus* Spanish and Italian, i.e, Ns in French don't raise as high as Ns in Spanish and Italian. Bernstein (2003) concludes that the higher the landing site of N, the greater the tendency for adjectives to occur post-nominally. As for the landing sites between N and D, she claims that they correspond to functional projections. Possible candidates for these intermediate functional landing sites have been claimed to be Number (singular vs. plural), Gender, and Case.

As for Number, it was Ritter (1991) who first proposed NumP claiming that it is it, and not NP, which is the complement of D in Modern Hebrew. In similar way to Ritter, Valois (1991) and Picallo (1991) adopt a number projection for French and Catalan respectively. Bernstein (1991a, 1993a) provides additional support for adopting a NumP for Romance presenting data from Walloon.

As for the status of Gender Phrase inside nominals, Picallo (1991) claims that gender projects to functional phrase within DP which she labels Gen(der)P. This functional projection is situated between NP and NumP reflecting the fact that gender is expressed directly on the noun stem and that number is expressed outside gender:¹⁰

(8) Spanish:

mes-a-s

table-FEM-PL

'table'

Bernstein (1993a, 1993b) subsequently suggests that gender is expressed in the form of word markers (in the sense of Harris 1991) in Spanish and Italian-type of languages. However, Ritter (1993) challenges the idea that Gender, or Word Markers, should correspond to functional categories claiming that gender is a feature and that there is a parametric variation on the location of this feature cross-linguistically. Thus, gender is found on the noun stem at all levels of syntactic

¹⁰ See Picallo (2006) for recent proposals on the relation between Gender and Number.

representation in Hebrew while in Romance it is located together with the noun's number specification on the functional head Num.

Longobardi (2003) further examines the Case positions within the DP. He claims that many languages tend to use a special Case, the Genitive, for the arguments of nouns whose verbal thematic correspondents bear Nominative and Accusative. There are, at least, five different ways of formal realization of the Genitive apart from expressing it by a preposition:

- (9)¹¹
- | | |
|--|--------------------------------------|
| a. a phrase final affix | (English 's) |
| b. a word final affix | (German <i>s</i> , Arabic <i>i</i>) |
| c. an inflectional (fusing) ending | (Latin or Slavic Genitive) |
| d. phi-feature agreement with the noun | (Romance/German Possessives) |
| e. zero-realization | (Hebrew Construct State Genitive) |

Longobardi (2003) suggests that prepositional Genitives surface lower than the Genitival forms of (9a, b, d, e). Thus, he hints at a possible hierarchy made available by UG:

- (10) (1 GenS 2 AP 3 GenO [_α P [S [O...N...]] _α])

The positions from 1 to 3 set out some crosslinguistically possible surface positions for the N. GenS and GenO are the high and low positions for possessivized Genitives respectively, and AP are iterated positions for attributive adjectives. That is, there are two positions for non-prepositional Genitives (higher or lower than Adjectives). Longobardi (2003) proposes that Semitic languages, Romance and Hungarian activate only the higher one, Celtic languages only the lower, while some varieties of Germanic activate both positions.

In conclusion, there has been a great amount of literature and interest on the structure of the DP since the works of Szabolcsi (1983) and Abney (1987) in the

¹¹ Examples by Longobardi (2003: 567).

Principles and Parameters framework. Yet, what is also certain is the fact that there is still a lot of work to be done on the syntax of the DP. Nowadays, there are many linguists who bring new light into this field as they investigate languages that have received little attention. New theoretical proposals are also being suggested that shed new light into old themes.

Having now set a very general scenario on the basic structure of the DP, I will proceed to discuss some issues on the classification of deverbal nominals.

3.1.2. Classifying nominalizations (Grimshaw, 1990)

The fact that the argument-taking properties of nouns are directly dependent on their event properties was first extensively argued in Grimshaw (1990). According to her, any predicate lacking event properties lacks argument structure as well.

Grimshaw (1990) presents evidence for the need to classify nominalizations according to their argument structure, distinguishing between the so-called event and result nominals exemplified in (11 a, b) respectively:

(11) Nominalization types (Grimshaw 1990)

a. Event Nominlas:

- (i) The examination of the patient took a long time.
- (ii) *The barbarians' destroying
- (iii) The barbarians' destroying of the city
- (iv) The examination of the dog in/for an hour
- (v) Bill's intentional examination of the weak candidate

b. Result Nominals:

- (i) *The exam of the patient took a long time
- (ii) The exam is on the table

- (iii) *The exam of the student in/for an hour
- (iv) *Bill's intentional exam of the weak candidate.

Grimshaw extensively argues that there are substantial differences between these two types of deverbal nouns. The event nominals, exemplified in (11a), are subject to several restrictions, which are exemplified in the ungrammatical sequences in (11a). They are called 'event' nominals because they denote events whose duration can be measured. The result nominals (11b), on the other hand, refer to the output of the event, so there is no possibility for measuring an event they can not possibly denote.

Event nominals are Theta-assigners, i.e., they have obligatory arguments (11a: ii, iii). In fact, having argument structure makes event nominals very similar to verbs (cf. **the barbarians destroyed*). To account for this, Grimshaw (1990) proposes that event nominals have an external event argument that we can label **EV** whereas result nominals have an external referential argument **R**. For her, it is the **EV** argument that is responsible for the argument-taking properties of the nouns (11a).

Another verbal feature of event nominals is their possibility to combine with aspectual modifiers (11a: iv), an observation first made by Vendler (1967). These modifiers cannot combine with the result nominals (11b: iii). Additionally, whereas event nominals allow for agent-oriented adverbials (11a: v), result nominals do not (11b: iv).

However, there are nominalizations that denote events but behave like result nominals as they are incompatible with aspectual modifiers and agent-oriented adverbials (12):

- (12) *Simple event nominals*, Grimshaw (1990)
 - a. *The event in an hour
 - b *Mary's intentional trip to Asia

The distinction is based on argument-structure. Grimshaw proposes that the *complex event nominals* like (11a) have a true argument structure, similar to that of verbal predicates. *Simple event nominals* like those in (12), on the other hand, don't. Rather, they have what she labels *participants* which are not real arguments but serve to restrict the denotation of the nominal in several ways.¹²

Grimshaw (1990) further suggests that there are some tests that can distinguish between true argument-structure nominals, i.e, complex event nominals (11a), from those that don't have argument-structure, i.e, the simple event nominals (12) and the result nominals (11b). To mention some of them, only argument-structure nouns accept adverbial modifiers such as 'frequent'¹³, 'constant' and agent-oriented modifiers such as 'deliberate, intentional' (cf. 11a: v). They can neither pluralize nor take indefinite determiners.

Following Grimshaw's (1990) classification, I will show there are also three types of nominalizations in Bulgarian as in (13):

(13) Nominalization types in Bulgarian

- (a) *Argument-structure nominals* (some process –NE nouns)
- (b) *Participant-structure nominals* (the eventive –(N)IE and eventive 'other-suffix' nouns and some process –NE nouns)
- (c) *Result nominals* (result –NE, result –(N)IE and result 'other-suffix' nouns)

The reason for such a classification is syntactic, that is, it is based on the syntactic behaviour of these nouns (see § 4.2). It will also become clear that their

¹² Grimshaw (1990) distinguishes between syntactic arguments, which stand in grammatically significant relation to predicates, and what she calls 'participants'. She claims that, among other things, the lexical conceptual structure (lcs) defines a set of participants involved in the meaning of the lexical item (p. 54). Whereas Verbs and complex event nominals project participants in their a(rgument)-structure and thus make their participants grammatical arguments, other nominals (result and simple event ones) have only participants but no grammatical arguments.

¹³ Grimshaw claims that if modifiers like 'frequent' and 'repeated' appear with result nouns, they must be in the plural (the frequent exam*(s)).

different behaviour results from a difference in the syntactic derivation and structure of these nominals (cf. § 4.1). Generally speaking, the type (13a) nominalizations correspond to Grimshaw's Complex event nominals; type (13b) to her Simple event nominals whereas type (13c) to her result nominals. Prior to substantiating my claims, I would like to present some general and more recent proposals on nominalizations like those suggested in Alexiadou (2001) and Ferrari (2005) from which I have adopted some assumptions.

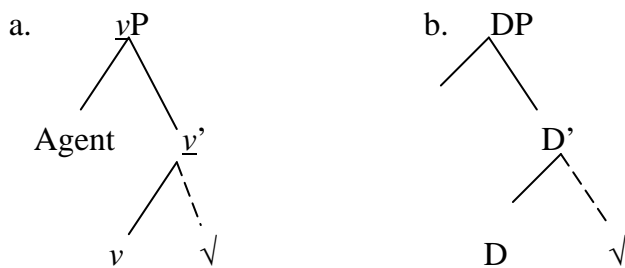
3.2. Some Notes on Alexiadou's (2001) and Ferrari's (2005) Proposals on Nominalizations

In this section I will discuss just the relevant assumptions on nominalizations made by Alexiadou (2001) and Ferrari (2005) which I have adopted in this work. Other details, which are not related to my proposal, will be omitted.

3.2.1. Alexiadou's (2001) view: some recent assumptions

Alexiadou (2001) adopts the Distributed Morphology (hence, DM) view (Marantz 1997, 1999; Schoorlemmer 1995, van Hout and Roeper 1998, Borer 1999) and claims that all word formation is syntactic and functional. Basically, she concentrates on the framework proposed in Marantz (1999) according to which lexical elements, unspecified for syntactic category, are introduced into variable syntactic environments. Depending on the functional layers that dominate these unspecified items, they are correspondingly spelled-out as adjectives, verbs, or nouns (Alexiadou 2001: 7). That is, Alexiadou considers categories like a verb *destroy* or a noun *destruction* to be abstract roots which lack categorial features. These abstract roots are introduced into the syntactic structure unspecified for a syntactic category and relate to higher functional heads such as Number/D or \bar{v} , to result into a noun or a verb respectively. Thus, when $\sqrt{\text{DESTROY}}$ is placed in a verbal environment, it gives a verb (14a), and if placed in a nominal environment, the result is a noun (14b):

(14) $\sqrt{=}$ $\sqrt{\text{DESTROY}}$



On an approach like this one, functional layers fully determine the category of a lexical head.¹⁴

As for deverbal nouns, Alexiadou distinguishes between argument supporting nouns, which correspond to Grimshaw's (1990) *Complex Event Nominals*, and non-argument supporting *result* nouns.¹⁵ For her, the difference between the argument-taking *versus* result nominals is explained by the presence of additional functional layers inside the former but not the latter. Thus, she claims that only argument-taking nouns include Voice/ \underline{v} ¹⁶ and Aspect projections whereas result nominals do not.¹⁷ A syntactic representation is provided in (15) where (15a) refers to Alexiadou's argument-supporting event nominals and (15b) to her result nominals, and F relates to additional nominal functional projections such as Number or Agr.¹⁸

¹⁴ This, in fact, opposes Grimshaw's (1990) analysis who claims just the opposite, i.e. that the category of lexical heads determines the functional layers.

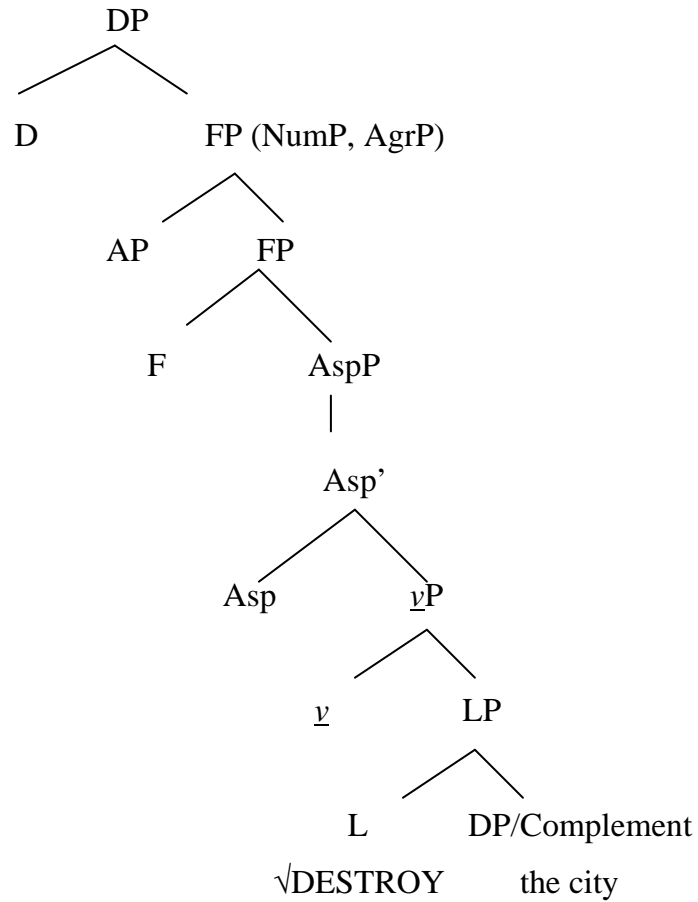
¹⁵ For Alexiadou (2001) both *process* and *event* nouns are argument supporting, the only difference among them being that the first are durative while the latter are terminative (p. 10).

¹⁶ According to Kratzer (1994a, b), Chomsky (1995), Harley (1995), Marantz (1997), Arad (1999), \underline{v} is (i) the locus for agentivity, i.e. external arguments; (ii) contains features related to agentivity; (iii) bares case features for the object; (iv) comes in two types: **a.** introduces external argument; **b.** doesn't introduce such (cf. Alexiadou 2001: 17). As for property (iv)b, Alexiadou claims that exactly this type of \underline{v} , the 'deficient' one, is found in nominalizations, due to the fact that no accusative case is assigned to their DP argument and that no agent is syntactically projected to Spec, \underline{v} P.

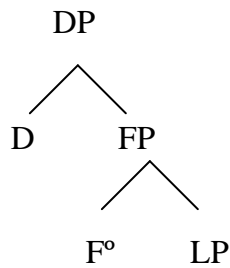
¹⁷ In Alexiadou's analysis, the functional category *Aspect* contains features related to the semantic properties of the denoted event (for example, perfective for a completed event and imperfective for an ongoing one); *Voice* is the locus of agentivity, decisive for features relevant to the licensing and interpretation of external arguments.

¹⁸ Examples from Alexiadou (2001: 19).

(15) a. Process/event (argument-supporting) nominals:



b. Result nouns:



As we can see from the representation in (15), Alexiadou, contrary to Marantz (1999), doesn't include a category-changing functional nominalizing head [n°] to derive a noun. For her, whenever a root is introduced under D/Number, we have a noun, and when introduced under Tense, the outcome is a verb. I will argue,

however, that a nominalizer projection [nP] is necessary for a root (or a stem) to be analysed as a noun.

An interesting observation by Alexiadou (2001), which will be relevant for my analysis, is the fact that there are languages that have overt morphological reflexes for Voice and Aspect. Though Greek doesn't systematically show Voice morphology on nominalizations (revealed by the infix *-m-*), there are languages that do so (Turkish, Korean, West Greenlandic, Bantu languages, Maori). In Turkish, the passive morpheme *-IL* shows the presence of Voice both on verbs and derived nouns (16):¹⁹

(16) a. Mektub yaz *-IL* *-di*
letter write pass past
'The letter was written'

b. mektub-un-yaz *-IL* *-ma-si*
letter-GEN write pass VN-its
'the writing of the letter'

Following this assumption, I will show that Bulgarian also has an overt Voice morphology on some nominalizations (in case of the *-(N)IE* nominals) manifested by the suffix *-N/T* (cf. § 4.1.2).

As for Aspect, Slavic languages present an opposition between perfective *versus* non-perfective, which can be observed on both verbs and nominalizations.²⁰ Bulgarian is, thus, a language that has both overt morphological reflexes: for Voice like Turkish, and for Aspect like the rest of the Slavic languages. Following Alexiadou (2001), the presence of both should result into a process/event argument-taking nominal. However, we should see that this is not so (for further details, see § 4.1).

¹⁹ Examples from Alexiadou (2001: 50).

²⁰ Similar patterns are found in Archi, Inuit, Buryat, Mongolian, Turkish, Tuva, and Tagalog (Alexiadou 2001: 51).

In the next section, I present some possible modifications on the basic assumptions put forth in Alexiadou (2001) based on some recent proposals by Ferrari (2005), which would be the starting point of my work.

3.2.2. Ferrari's (2005) analysis: some notes

Following some of Alexiadou's (2001) ideas, Ferrari (2005) proposes a syntactic account for Italian and Luganda nominalizations.²¹ However, contrary to Alexiadou (2001) and Marantz (1999), she claims that only stems can enter syntax to be further modified. For her, roots first need to acquire a categorical specification, i.e. they need to become stems, in order to be analyzable. Once this process takes place, they can enter the syntactic component for further modification. Stem formation takes place in the Lexicon in Ferrari's analysis. An example is provided below:

$$(17) \textit{The Lexicon: } \sqrt{\quad} + (c) = \textit{stem} (c)$$

From (17) we see that the root $\sqrt{\quad}$ combines with a categorical feature (c) to give a stem which is categorically marked (i.e. (c)). Stems, thus, always have a categorial feature (verbal, nominal, or adjectival).

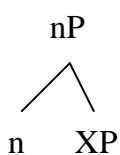
Following Ferrari's line, I will suggest that there are cases where a stem, and not a root, must enter at the syntactic component as an indivisible unit. In other words, there are instances where only stems can enter the numeration as syntactic objects. This is the case of lexically prefixed nominalizations (see § 4.1 and ftns. 9, 10). Otherwise, it is the root that directly enters syntax to be further modified there.

Ferrari (2005) further suggests that an important factor for the derivation of nouns in both Italian and Luganda is the Gender/Class morpheme. In her analysis, these morphemes are used to derive nouns from non-nominal stems (verbal and adjectival). They are types of derivational heads marked for the lexical feature [n]

²¹ Luganda is a Northern-East Bantu language. It is the official language of the Baganda people, the largest Inter-Lacustrine Bantu tribe in Uganda.

that project in syntax by virtue of their inflectional nature.²² Thus, contrary to Alexiadou (2001) who rejects the role of any nominalizer such as [n] for the derivation of deverbal nouns, Ferrari (2005) proposes that it is [n] which is responsible for the nominalizing process. For her, noun formation results from the Merger of [n] with an XP where XP can be a nominal, adjectival, or verbal stem, or a VP, AspP, or VoiceP with a general representation as in (18):

(18) [nP[n[XP]]]



Following this line of analysis, I will propose that some Bulgarian nominalizations are also derived by the merger with a gender morpheme which, in my analysis, is a nominalizer as well (in case of ‘gender-derived’ nominals). As for the rest of the Bulgarian nominalizations, the nominalizer head is a derivational suffix marked for gender. In a similar way to Ferrari, I will also propose that the base for deriving nominalizations can be either a VoiceP (in case of the –(N)IE nominals), AspectP (in case of –NE nominals), or a VP (in case of lexically prefixed nouns, i.e, when verbal stems enter the syntactic component). Otherwise, we have categoriless roots that enter syntax.

Having established the basic ideas which I adopt from Grimshaw (1990), Alexiadou (2001) and Ferrari (2005), I will now proceed to show that we still need some further modification of these analyses in order to account for certain Bulgarian data.

²² Root stems, affix stems (i.e, derivational morphemes) and inflectional morphemes are considered to be XPs in Ferrari’s (2005) framework.

3.2.3. Problems to previous analysis on nominalizations.

Crucial to my analysis of Bulgarian nominalizations is Grimshaw's (1990) assumption that without event structure there is no argument structure. I will show, using data on Bulgarian deverbal nouns, that such a claim is confirmed. As for the classification of Bulgarian nominalizations, I have already suggested that they can be divided into three types which roughly correspond to Grimshaw's (1990) classification (cf. 13).

With respect to the tests proposed in Grimshaw (1990) for distinguishing between argument structure (*Complex Event Nominals*) and non-argument structure (*Simple Event* and *Result*) nominals, we shall see that they do not always apply to Bulgarian. In section 4.2 it will become clear that all of the nominalization types in Bulgarian can (i) pluralize, and (ii) accept indefinites, demonstratives and numerals.²³ As for time and manner adverbial modification, all eventive nouns, both argument-structure (13a) and participant-structure (13b), accept it as well. Regarding agent-oriented modifiers and the adjective 'frequent', Grimshaw's claims are supported, i.e, such modifiers are compatible only with argument-structure nominals.²⁴

I adopt from Alexiadou's (2001) analysis the assumption that word formation is syntactic and that a categoriless root is spelled out as a noun, adjective, or verb, depending on the functional layers that dominate it. However, contrary to Alexiadou (2001) and in accordance with Ferrari (2005), I will show that sometimes a stem and not a root must be inserted in syntax. This, as already mentioned, happens in case of lexically prefixed nominalizations (cf. § 5.3.1).

An important proposal of both Alexiadou (2001) and Ferrari (2005) is the presence of Aspect and Voice projections in nominalizations. In line with Alexiadou (2001) I will show that Bulgarian is a language with overt morphological reflexes

²³ Such facts are also attested by Sleeman and Brito (2007) and the references there.

²⁴ As for the adjective 'frequent', Grimshaw (1990) claims that it can occur with result nominals but then they should appear in the plural (cf. Ftn. 13). The same holds for Bulgarian.

for both Voice and Aspect which are preserved in certain nominalization types. Following Ferrari (2005), this would suggest that the base for deriving such nominals is either AspP or VoiceP. Thus, I will propose that the –(N)IE nominals are generated under VoiceP due to the fact that they preserve the past passive participial suffix –N/T (cf. § 4.1.2). As for the process –NE nominalizations, they contain an Aspect Imperfective Phrase (Asp^IP) because they are always formed on imperfective verbal bases. Following Alexiadou’s analysis, this would mean that all of these nominals should be process/event argument-taking ones. However, it will be shown that this is not always the case and that some –NE and almost all –(N)IE nouns denote results or objects. Additionally, there are cases where such projections are not present but the nominal can still denote an event, as is the case with the participant-structure ‘other-suffix’ nouns (cf. § 4.1.1).

Before I present my syntactic analysis, I would first mention some proposals on nominalizations in Bulgarian, the language under investigation.

3.3. Previous Proposals on Nominalizations in Bulgarian

The literature on nominalizations in Bulgarian is scarce.²⁵ Dimitrova-Vulchanova and Mitkovska (2006), Popova (2006), Fowler and Dyer (1988) and Steinke (1999), among others, are among the few who have analyzed deverbal nominals in Bulgarian. As for the semantics of nominalizations, Gradinarova (1999) is among the very few who offers a detailed account of both Russian and Bulgarian deverbal nouns.²⁶

Slavic nominalization semantic types in comparison with other languages such as English have been studied in Revzin (1973) and Fowler and Dyer (1988)

²⁵ The literature on the functional structure of the DP in Bulgarian is much richer. Thus, Wunderlich (2002), Schürcks and Wunderlich (2003), Tasseva-Kurktchieva (2005a, b), DV&Guisti (1999) and Dimitrova-Vulchanova (2000) pay attention to the role and syntax of possessors in Bulgarian DP. Tasseva-Kurktchieva (2006) further examines the categorial status of quantifiers in Bulgarian claiming that they are not determiners and that demonstratives generate in their own DemP (something previously suggested by others: Roca (1996)). Dimitrova-Vulchanova (2002) then analyzes the realization of Number in the Balkan languages whereas Dimitrova-Vulchanova (2003) and Arnaudova (1996) pay attention to N-A possible orders and A-to-N movement in the DP.

²⁶ Dineva (1997, 1998), on the other hand, pays attention to Bulgarian words of emotion more concretely.

who state that Slavic languages exhibit a less degree of variation among process nominals. Whereas (19a) is unknown in Slavic, the equivalent of (19b), a gerundive nominal (or a Possessive –ING construction) in English, is found in Bulgarian and Macedonian:

- (19) I was surprised by
a. [John immediately *refusing* the offer]
b. [John's immediately *refusing* the offer]

Syntactic analysis of Slavic nominalizations is provided in the works of Procházková (2006) for Czech; Schoorlemmer (1995) for Russian, and Rozwadowska (2000a, b) for Polish, among many others.

Before I offer my syntactic analysis of nominalizations in Bulgarian, I will discuss some of the assumptions made in the literature on this topic. I first start the discussion with some proposals made in Dimitrova-Vulchanova and Mitkovska (2006) after which I will show the way Popova (2006) analyzes Bulgarian nominalizations.

3.3.1. A note on Dimitrova-Vulchanova and Mitkovska (2006)

Dimitrova-Vulchanova and Mitkovska (2006) (henceforth, DV&M (2006)) explore the nominalization types in Bulgarian and Macedonian. The authors claim that whereas Macedonian collapses the event and result nominals in one and the same nominalization pattern (the –NJE nouns), Bulgarian distinguishes between the productive event –NE and the semi-productive result –NIE nominalization types. To illustrate this, they provide the following example (20) where from one and the same verb we obtain both nominalizations with the corresponding meanings. The examples refer to Bulgarian:²⁷

²⁷ Example from DV&M (2006: 2).

- (20) a. pis-a-NE
 write-a-NE
 ‘the act of writing’
- b. pis-a-NIE
 write-a-NIE
 ‘writings, the product of writing’

The –NE nominalization results into an event reading (20a), whereas the corresponding –NIE noun in (20b) has a result interpretation. Normally, a verbal root gives rise to both nominalizations (in –NE and in –NIE). Sometimes, however, the –NIE one may not be available. In this case the –NE pattern, which is always available, is opposed to a ‘non-derived’ nominal.²⁸ An example is given in (21):

- (21) a. **laj**
 ‘bark’
- b. **la-e-ne**
 bark-e-NE
 ‘barking’

The result noun in (21a) is, according to them, a ‘non-derived’ nominal. Yet, in my analysis (see the following chapter) I include this pattern in the group of ‘the other-suffix’ nominals and claim that this is an instance of gender derivation.

DV&M (2006) also claim that both Bulgarian and Macedonian have a number of other semi-productive patterns which give rise to result interpretation, although they do not analyse these nouns. An example is provided below:

- (22) a. grad-EŽ (BG) b. trjas-ŮK (BG)
 ‘building’ ‘bang, loud noise’

²⁸ In fact, as also claimed by DV&M (2006), some verbs of the ‘fear’ class don’t give a –NE nominalization (**strahuva*-NE ‘fearing’ vs. *strah* ‘fear’).

As we will see in the following chapter these nouns fall, morphologically, under the label of ‘other-suffix’ nominals in my analysis. Contrary to DV&M (2006) I will show that some of them may denote events. In this case, they are participant-structure nominals (13b) whereas if they denote objects or results, they fall under the result nominal type (13c).

DV&M (2006) present additional evidence for the distinction between the –NE and the –NIE nouns. While the –NE nouns derived from transitive two-place predicate verbs are ungrammatical with overt realization of only the external argument (the agent) as in (23a), the –NIE class permits such constructions (23b):²⁹

- (23) a. negovoto izpitva-NE b. negovoto izpita-NIE
 his_{THEME/*AGENT} examination his_{THEME/AGENT} trial

Thus, in (23a) ‘his’ is interpreted as the patient, not the agent. In fact, we will see that this is due both to the transitivity of the predicate and to the argument-taking properties of the –NE nominals exemplified in (23a). For more details, see section 4.2.1.

Another difference detected by DV&M (2006) between the –NE and –NIE nominals concerns their syntactic behaviour. Following Grimshaw (1990), the authors claim that event nominalizations (-NE nominals) rarely take modifiers and almost never demonstratives (24a) whereas result nominals (the -NIE nouns) can freely occur with demonstratives (24b):³⁰

- (24) a. *tova lae-NE³¹ b. tozi laj
 ‘this barking’ ‘this bark’

I will show, however, that all nominalization types can freely accept any nominal modifier (cf. § 4.2.2).

²⁹ Examples from Dimitrova-Vulchanova and Mitkovska (2006: 12).

³⁰ For more details on structural differences see Dimitrova-Vulchanova and Mitkovska (2006: 13).

³¹ For me, this example is acceptable. DV&M (2006) claim that this example is typical of colloquial register, primarily in ironic contexts (see their ftn 8).

Finally, I would like to briefly comment on the aspectual differences between the event and result nouns in Bulgarian discussed in DV&M (2006), as this would be relevant for my syntactic analysis and further proposals on this topic.

DV&M (2006) claim that the event –NE nouns inherit the event structure of the verb they derive from while the result–NIE nouns have a ‘non-processual’ structure. To prove these claims, the authors apply the ‘*lasted X time*’ test as in (25) below:³²

(25) a. *tǔrse-NE-to na izcheznaite prodǔlji dǔlgo*

The searching of the lost (ones) lasted long

b. **tǔrse-NIJA-ta na poeta prodǔljiha dǔlgo*

*The search of the poet lasted long

However, the examples they provide in (25) are problematic in various ways. First of all, the noun in (25a) is a –NE nominal in the singular whereas (25b) corresponds to its plural form. That is, (25b) doesn’t correspond to a –NIE nominal so we cannot claim that durative modifiers (‘*lasted X time*’) are not available in such nouns. As we should see in section 4.2.4, though the examples in (25) are not adequate to prove that aspectual inheritance takes place only in the –NE nominalization pattern, such an intuition is correct. I will claim that it is related to telicity and there are various factors intervening in this issue.

DV&M (2006) suggest that further contrasts between the aspectual characteristics of –NE and –NIE nouns can be supported by the fact that only the first can be used adverbially (as complements of prepositions) but not the latter (26):³³

³² Examples taken from DV&M (2006: 13).

³³ Examples from Dimitrova-Vulchanova and Mitkovska (2006: 14).

- (26) a. na vliza-NE b. predi/sled trugva-NE
 on entering before/after going

The authors claim that (26) is felicitous with any type of preposition which can pick up an interval and refer to a point (or interval) in time, which further supports the eventive character of the –NE nominalizations in contrast to the –NIE ones. I will suggest that this may be due to the fact that the –NE nominals are related to gerunds and can take over some gerundive functions (see section 4.1, fn. 29).

Finally, the authors claim that nominalizations behave differently with respect to aspectual prefixes. According to them, only the –NE nominals (27a, a') but not any other type (27b) accept them:³⁴

- (27) a. IZ-lajva-NE
 barking out
- a'. PRO-lajva-NE
 barking-PF
- b. *IZ-laj /*PRO-laj
 PF-bark

As opposed to DV&M's (2006) claims, I will show that some of the 'other-suffix' nouns and some –(N)IE ones do allow for modification by aspectual prefixes (cf. chapter 5).

From all of the examples presented above, DV&M (2006) conclude that –NE nominalizations are event denoting whereas the –NIE ones give a result reading (like the 'non-derived' ones). I would show in the next chapter that the situation in Bulgarian is not exactly like this. There are cases of –NIE and 'other-suffix'

³⁴ Examples taken from DV&M (2006: 14).

nominals with event interpretation. Consequently, some aspectual prefixes can attach to both of them too (cf. chapter 5).

Before I proceed to the exposure of my analysis in the next chapter, I would like to briefly mention some of the proposals on Bulgarian nominalizations presented in Popova (2006).

3.3.2. A note on Popova (2006)

Popova (2006) is also one of the few scholars who has dedicated some thoughts on the topic of Bulgarian nominalizations. Adopting the Paradigm Function Morphology framework, she also claims that Bulgarian distinguishes between two types of nominalizations, the –NE and the –NIE nouns.³⁵ For her, the –NE nouns denote events and inherit the argument structure of the verb they derive from whereas the rest of the nouns denote results. However, it was previously mentioned that this is not at all the case in Bulgarian. First, there are many nominalizations, apart from the -NE ones, which denote events. Second, we will also see that certain –NE nominals can denote results or objects (cf. § 4.1).

Popova applies some of the tests already proposed in Grimshaw (1990) to show that Bulgarian supports Grimshaw's distinction between argument and non-argument structure nominals. She shows that only –NE nouns can be (i) modified by phrasal verbs (28a); (ii) can take durative or completive adverbials (28b); (iii) allow for manner modification (28c); (iv) allow for modification by adjectives like 'frequent'³⁶, 'permanent' (28d), and (v) allow for event control (28e):³⁷

³⁵ The Paradigm Function Morphology is a model of morphology which stems from the works of Matthews (1972), Anderson (1992), Aronoff (1994), and is very thoroughly formalized in Stump (2001).

³⁶ Popova (2006) also claims, in a similar way to Grimshaw (1990), that the adjective 'frequent' may appear with result nouns but requires that they be in the plural.

³⁷ Examples taken from Popova (2006: 77-79).

(28) –NE vs. –NIE nominals:

(i) *Modified by phrasal verbs:*

a. izrazjava-NE-to na chuvstvata mu *zapochna predi dva dni*
expression of feelings his *started before two days*
'His expressing his feelings started before two days'

a'. *izraže-NIE-to na litseto j *prodalži dva chasa*
expression on face her *continued two hours*
*'The expression on her face lasted for two hours'

(ii) *Durative and completive adverbials:*

b. sreshta-NE-to s chuždentsi *v prodūlženie na dva dni* go iztoshti
meeting with foreigners *in duration of* two days him exhausted
'Meeting foreigners for two days exhausted him'

b'. *sreshtata s chuždentsi *v prodūlženie na dva dni* go iztoshti
meeting with foreigners *in duration of* two days him exhausted
*'Meeting foreigners for two days exhausted him'

(iii) *Manner modification:*

c. *Spokojnoto i uvereno* pisa-NE na pisma mu pomaga
calm.THE and confident writing of letters him help
'The calm and confident writing of letters helps him'

(iv) *Modification by 'frequent'*:

d. *chestoto* chuka-NE go iznervi
frequent.THE knocking him nervous
'The frequent knocking made him nervous'

d'. *chest-i-te* udar-i po vratata go izverviha
frequent.PL.THE knock-PL at door.THE him nervous
'The frequent knocks at the door made him nervous'

(v) *Event control*:

e. Nalaga se sūbira-NE-to na sobstvenitsite *za da* se reshi problema
Demanded REFL gathering of owners *for to* REFL solve problem
s pokriva
with roof
'The gathering of the owners **in order to** solve the problem with the roof is
mandatory'

e'. * Nalaga se sūbra-NIE-to na sobstvenitsite *za da* se reshi problema
Demanded REFL gathering of owners *for to* REFL solve problem
s pokriva
with roof
'The gathering of the owners **in order to** solve the problem with the roof is
mandatory'

From the data in (28) Popova concludes that only the –NE nominals have eventive semantics while the rest (28a', b', d', e') don't. It would be shown in section 4.2.3 that, as far as manner modification is concerned (i.e., (28c)), all types of eventive nominals (–NE, -NIE and 'other-suffix' ones) allow for it as well. My data further contradicts Popova's assumption that only the –NE nouns are eventive (see § 4.1). As for durative adverbials (i.e., (28b)), it will be shown that their

licensing is related to telicity and an explanation will be offered in terms of the syntactic decomposition of the nominalization types (see § 4.2.4).

A last comment I would like to make is the relation Popova (2006) proposes between –NE nominals and Aspect. The fact that the –NE nominals derive only from imperfective verbals bases suggests that they may have inherited the aspectual properties of the verb. However, Popova finds such a claim problematic for Bulgarian and proposes that Bulgarian –NE nominals don't have aspect. In order to prove this she shows that some –NE nominalizations can combine with both durative '*for X time*' and terminative '*in X time*' modifiers at the same time. Due to the fact that durative modifiers combine with imperfective eventualities whereas the terminative ones with perfective, the fact that some nominalizations combine with both at the same time would suggest that there is no aspectual information inside them. Consider the example below:³⁸

(29) a. Pǔtuva-NE-to *v prodǔlženie na* dva dni ja umori
travel *in duration of* two days her tired
'Travelling for two days tired her'

b. Pǔtuva-NE-to do Varna *za* shest chasa ja umori
travel to Varna *in* six hours her tired
'Travelling to Varna in six hours tired her'

Though it seems reasonable to suggest that the examples in (29) question the imperfective aspectual nature of such nominalizations, it is plausible to think that this is due to (i) the unergativity nature of the verbal base '*pǔtuva*' (travel), and (ii) to the presence of the telic prepositional phrase '*do Varna*' (to Varna).³⁹ In other

³⁸ Example taken from Popova (2006: 84).

³⁹ Unfortunately, I couldn't find any work on tests distinguishing between unergative and unaccusative verbs in Bulgarian. From the tests that have been applied in the literature for other languages, it seems that only the '*locative inversion*' one could be applied successfully to Bulgarian. In the *locative inversion* construction, a locative phrase occurs sentence-initially while a surface subject DP follows an unaccusative verb, i.e. we get [PP VP_{UNACCUSATIVE} DP_{SUBJECT}] structure. Unergative verbs are believed not to occur in this construction. Applying this test, the verb '*pǔtuva*' (travel) is unergative (1a) *versus* a verb such as '*rasta*' (grow) which is unaccusative (1b):

words, it is the prepositional phrase which transforms the unergative atelic verb ‘*pǔtuva*’ (travel) from (29a) into the unaccusative telic verb ‘*pǔtuva do Varna*’ (travel to Varna) in (29b). Thus, the presence of the telic modifier ‘*in six hours*’ in the nominalization in (29b) is accounted for. If the PP were not present (29a), then the verb, and hence the nominalization, would remain unergative and atelic and the telic modifier would not be accepted.⁴⁰

Having presented the basic proposals made on Bulgarian nominalizations together with some critical comments, I focus the next chapter on my analysis of Bulgarian deverbal nominals.

-
- (1) a. # V avtobusa *pǔtuvat* detsata (In the bus travel the children)
 b. V gradinata *rastǔt* tsvetja (In the garden grow flowers)

See Harves (in progress) and references there for further details on this diagnostics for Russian. As far as I can tell, the same holds for Bulgarian. However, much dedication is required on this topic.

⁴⁰ Thanks to Jaume Mateu (p.c) who has suggested to me that this could be a possible, though provisional, explanation for the phenomenon in (29), in a similar way as it has been previously suggested for English. A similar proposal has been made for Spanish in Miguel (1999) as well. Miguel (1999) claims that an atelic verb which denotes an activity such as ‘*nadar*’ (swim) gets delimited when a PP such as ‘*hasta el puente*’ (to the bridge) is inserted. Thus, the verbal complex ‘*nadar hasta el puente*’ (swim to the bridge) becomes an accomplishment and, in a similar way to Bulgarian (29b), allows for a telic modifier such as ‘*en un minuto y medio*’ (in one minute and a half). If the PP were not present, then ‘*nadar*’ (swim) remains atelic and rejects the telic modifier (??*Amaya nadó en un minuto y medio* ‘Amaya swam in one minute and a half’). See (Miguel 1999: 3032-3033) for further details on Spanish.

CHAPTER 4: THE SYNTAX OF NOMINALIZATIONS IN BULGARIAN

It has already been mentioned that the literature on nominalizations in Bulgarian is scarce and not always detailed. There is not a general consensus on the analysis of any given topic. Sometimes, the adopted theoretical backgrounds and the analyses suggested under them are contradictory and often incompatible. One may say, in addition, that many Bulgarian linguists focus their attention on a restricted issue: either a particular projection in the DP (*NumberP*: DV (2002); *DemP*: Tasseva-Kurktchieva (2006), Arnaudova (1998); *AP*: Arnaudova (1996), DV (2003); *GenP*: Rappaport (2000), Tasseva-Kurktchieva (2005a, b)), or on specific details in the nominalizing process (the role of the suffix: Steinke (1999), Georgiev (1999); argument structure: DV&M (2006); Aspect: DV&M (2006) and Popova (2006); semantics: Gradinarova (1999), or the role of passivization: Rappaport (2000) and Engelhardt & Trugman (1998, 2000)), to mention only a few. Often, these authors do not consider some details that are, in many cases, of great importance for the proposals defended. Even the apparently uncontroversial status of the Determiner has been challenged among authors.¹

Incompatibilities of various types also arise with respect to the nominalizing process itself. Whereas Rappaport (2000) claims that there is no passivization inside nominalizations due to the absence of T, v, and Prt (participle) projections inside the DP, Engelhardt & Trugman (1998, 2000) and Townsend (1975) defend the role of passivization.

As for the classification of deverbal nominals, Rappaport (2000) divides them into three types (-N/-T Ns, action (result) Ns, and process Ns) while DV&M (2006) consider that there are only two types of them: event (-NE) and result (-NIE) nominals, claiming that what I will call ‘other suffix nouns’ are non-derived.

¹ For example, Zlatic (1998) claims that articleless languages don’t project to DP whereas in Bulgarian and Macedonian, (the only Slavic languages that have an overt article) the NP must be, in fact, a DP. Nevertheless, the majority of the linguists adopt Abney’s (1987) DP hypothesis claiming that all NPs are DPs.

Disagreements also arise on the reading of these nouns. DV&M (2006) claim that –NE nominals give rise to event interpretations while –NIE nouns are result nouns. Against such considerations, Popova (2006) and Rappaport (2000) claim that the status of the –NIE ones may be sometimes ambiguous between both readings. Further disagreement exists on the aspectual nature, and its analysis, of Bulgarian nominalizations. Rappaport (2000), for example, suggests that Asp and Voice do project inside DP when the event interpretation obtains. DV&M (2006) also defend the aspectual nature of the –NE nominals but reject the possibility for –NIE ones to project an AspP. There are also linguists, like Popova (2006), who totally reject the syntactic presence of Aspect inside Bulgarian nominalizations of whatever kind.

Finally, and more relevant to the discussion that follows, there is also disagreement as far as the derivation of Bulgarian deverbal nominals is concerned. Steinke (1999) and Popova (2006) claim that the verbal base for deriving them is the Aorist. Georgiev (1999) suggests that they derive from the present verbal base.² Pashov (1999) proposes that deverbal nouns in Bulgarian could be obtained either from the Aorist stem (from which they historically derive), or from the present verbal base, and sometimes even from the past imperfective one (p. 210). It must also be pointed out that the exact nature of the verbal base is almost never mentioned in the syntactic analyses of scholars working in this field. It is just briefly commented on in traditional descriptive grammars but not in recent syntactic analyses. I mention this particular state of affairs because the aspectual nature of the verbal base plays a crucial role in the analysis proposed here, as I have already suggested.

This scenario of contradictory or mutually inconsistent analyses has lead me to propose a more detailed and concrete view on the nominalizing process in Bulgarian. My discussion is organized as follows: in section 4.1, I present the

² In fact, Georgiev (1999) claims that the –NE nominals derive on the present verbal base whereas he doesn't specify whether the –NIE ones do so too. Yet, we understand that they do.

possible nominalization types in Bulgarian, offering a corresponding syntactic analysis for each one. Then, in section 4.2, I proceed by showing that the suggested division is attested because these nominalization types behave differently with respect to various tests (argument structure, possessive interpretation of the external argument, the acceptability of nominal modifiers, adverbial modification and telicity).

4.1. The syntactic representation of Bulgarian deverbal nominals

I suggest that three different types of nominalizations in Bulgarian can morphologically be distinguished.³ I will label the first type as ‘other-suffix’ nominals (see § 4.1.1.). The second nominalization type is discussed in section 4.1.2. It is what I call “Voice – IE nominals”. Finally, the third group is the – NE nouns (see § 4.1.3).

4.1.1. The ‘other-suffix’ nouns

Under this label I include the gender-derived nominalizations as well as deverbal nouns derived via various suffixes (-(Ž)BA, -ITBA, -KA, -EŽ, -ITSA, -IE,⁴ among many others). Though these nouns have different morphological representations, I include them in one group due to the fact that they behave syntactically in a similar way. (Cf. §4.2). The gender⁵ nominals are exemplified in (1) and nominals derived via the number of suffixes listed above are exemplified in (2):

³ Following Svenonius (2004a), I endorse the view that there is a close correspondence between syntactic structure and morphological structure (see Baker 1985, 1988; Hale and Marantz 1993, Cinque 1999, Julien 2002). In these works, a morphological complex of the form C-B-A often indicates the existence of an underlying syntactic structure of the form $[_{AP} A[_{BP} B[_{CP} C]]]$.

⁴ Note that here the –IE suffix is different from the –IE one found in the participial Voice –IE nominalizations (or what is known as –NIE nominals). The –IE ‘other-suffix’ nominals derive from a root/stem to which the –IE suffix attaches whereas the Voice nominalizations (labelled here Voice –IE nominals) are formed on the past participial base of the corresponding verb to which the –IE suffix attaches. In fact, -IE is a very productive suffix in Bulgarian. Apart from its role in nominalizations (in the ‘other-suffix’ –IE and the Voice –IE nominals), it could also be a place suffix (*imen*-IE ‘estate; domain’), see Georgiev (1999)). Additionally, it can also attach to adjectives to form nouns (*vesel*-IE ‘gay’ – *vesel*-IE ‘gaiety, fun’).

⁵ I call these nominalizations gender nominals due to the fact that there is no nominalizing suffix available. As we shall see, the nominalizer in such nouns is the gender morpheme.

(1) Gender nominalizations

a. *Masculine*

[RAZ-kaz]-Ø
[RAZ-say]-Ø
narrate- Ø.MASC.SG
'narration, story'

b. *Feminine*

[ZA-shtit]-a
defend-a.FEM.SG
'defense'

c. *Neuter*

tegl-o
weigh-O.NEUT.SG
'weight'

(2) 'Other-Suffix' nominalizations

a. *Feminine*: kraž -BA

steal-BA.FEM.SG
'stealth'

b. *Masculine*: plam-ŮK

flame-ŮK. MASC.SG
'flame'

c. *Neuter*: deistv-IE

act-IE.NEUT.SG
'action'

Like all nouns, nominalizations are marked for gender. In fact, from the examples in (1) we see that the gender nominalizations result from the merger of a gender marker (overt ‘*a*’ for feminine⁶, overt ‘*-o/-e*’ for neuter and covert, or ‘ \emptyset ’, for masculine)⁷ as well as a root (1c) or a verbal stem (1a, b). As for the ‘other-suffix’ nominals, the gender is carried by the suffix. The suffixes that end in *-a* are feminine (*-BA*, *-KA*, *-ITBA*, *-(N)ITSA*), those that end in a consonant are masculine such as *-EŽ*, *-ŮK* (2b) whereas those that end in *-E* are neuter such as *-IE* (2c)⁸. We may further reanalyse those suffixes as a suffixal element plus a gender marker but for the sake of simplicity, I will assume that the gender is marked on the nominalizing suffix.

Throughout this chapter it will become clear that a nominalization can be formed either on a root ($\sqrt{\quad}$) or on a verbal stem. In case there is a prefix, we have a stem (1a, b). Otherwise, we have a root (1c). I will claim that prefixes signal the presence of a verbal stem,⁹ and that nominalizations may be derived either on a stem (in case there is a prefix), or on a categoriless root. A similar analysis is proposed in Ferrari (2005). I further suggest, also following Ferrari (2005), and as opposed to Marantz (1997), that roots may be selected as stems already in the Lexicon (in case of lexical prefixation). However, in this particular respect, I depart from Ferrari’s (2005) proposal. She claims that only stems are modifiable in syntax and that all stem formation takes place in the Lexicon. I propose instead

⁶Georgiev (1999) claims that ‘*-a*’ is an eventive suffix, which reveals the result of some action in the same way as *-KA* is. Yet, he never considers the possibility for gender being a nominalizer. In my analysis, ‘*-a*’ is clearly a gender suffix that marks nouns as feminine and that nominalizes the root or the stem at a previous state in the derivation.

⁷Recall that masculine nouns in Bulgarian end in a consonant (*stol* ‘chair’, *zavod* ‘factory’, *prozorets* ‘window’). We observe that the masculine gender-derived nouns as in (1a) end in a consonant too. Thus, we may consider (1a) a case of non overt (zero) masculine derivation.

⁸For a more detailed description on gender in Bulgarian, see section 2.1.1 above.

⁹Bulgarian grammarians consider prefixation as a way to derive a new verb from another verb. Yet, prefixation is also a way to derive verbs from nouns (i) and adjectives (ii):

- | | | |
|--|---------|---|
| (i) <i>svinja</i> > o- <i>svin</i> -va-m | se | (ii) <i>cheren</i> > PO- <i>chern</i> -ih (se) |
| pig > o-pig-IMPf-m.1PS.SG | se.REFL | black > PO-black-ih.Aor.1PS.SG (se-REFL) |
| ‘a pig’ > ‘get dirty (like a pig)’ | | black > I got black (+ ‘se’)/ I made black (- ‘se’) |

Catalan shows similar behaviour with the verbs *empocar(-se)* and *ennegrir(-se)*, which correspond to the Bulgarian (i) and (ii) respectively.

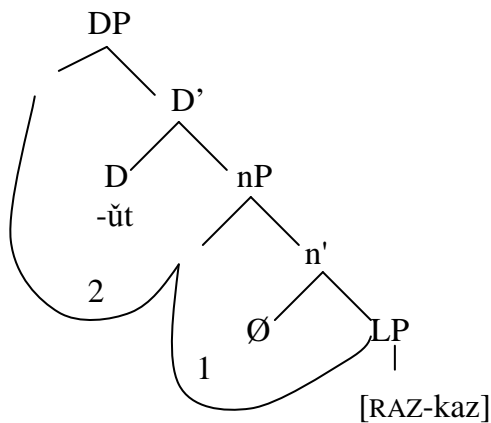
that, only in case of (lexical) prefixation, stems should be selected to form the numeration for a given DP and project as the lexical category LP. Otherwise, we have a root which becomes a verbal stem via “verbalization” (by a VP projection) be it overt or covert. For ease of exposition and to facilitate the discussion, I use the label \sqrt{P} for roots and LP for stems in the representations that follow.¹⁰

In (3) below, I provide a syntactic analysis of the gender nominals listed in (1) with the corresponding bracketed step-by-step movement operations involved in the derivation (3a', b', c') :

(3) **The Syntax of Gender Nominals:**

a. **Masculine** ([RAZ-kaz] ‘story/narration’, [RAZ-vod] ‘divorce’, [PO-vod] ‘occasion’, [IZ-strel] ‘shot’, [PO-hod] ‘march/campaign’, tants ‘dance’, govor ‘speech’, etc.):

[RAZ-kaz]-ūt ‘the story’:



¹⁰ To refer to the root, I use the symbol $\sqrt{}$. In order to show the presence of a prefix, I separate it from the root by a dash. The prefixed stem is then introduced in square brackets to show that it forms a unit:

(i) [RAZ-kaz]-va-m ‘narrate’

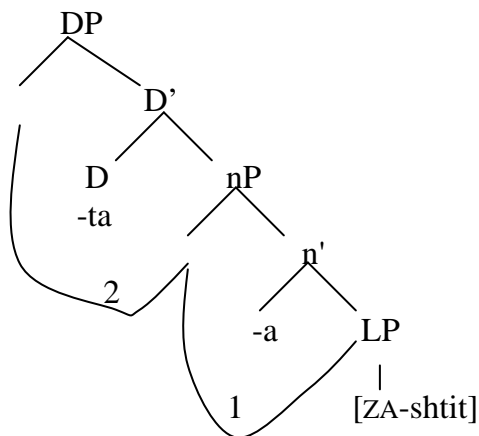
Thus, whenever we have square brackets, it means that (i) there is a prefix inside them and that (ii) we have a stem, not a root.

a'. **Bracketed step-by-step movement representation:**

1. [_{LP} [RAZ-kaz]-] (stem LP merging with n)
2. [_{nP} [_{LP} [RAZ-kaz]]₁ [∅] t_I] [TO SPEC, nP]
3. [_{DP} [_{nP} [_{LP} [RAZ-kaz]]₁ [∅] t_I]₂ [-ūt] t₂] [TO SPEC, DP]

b. *Feminine* ([U-kras]-a ‘decoration’, [ZA-bran]-a ‘prohibition’, [PO-vred]-a ‘damage’, zabrav-a ‘forgetfulness’, sresht-a ‘meeting’, hran-a ‘food’, among others, exemplified in (1b) above.

[za-shtit]-a-ta ‘the defense’:

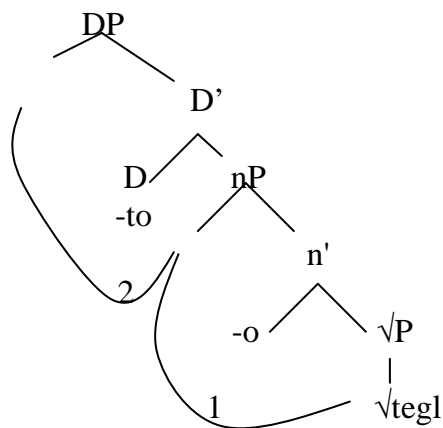


b'. **Bracketed step-by-step movement representation:**

1. [_{LP} [ZA-shtit]] (stem LP merging with n)
2. [_{nP} [_{LP} [ZA-shtit]]₁ [-a] t_I] [TO SPEC, nP]
3. [_{DP} [_{nP} [_{LP} [ZA-shtit]]₁ [-a] t_I]₂ [-ta] t₂] [TO SPEC, DP]

c. *Neuter* (tegl-o ‘weight’) (Cf. (1c))

tegl-o-to ‘the weight’:



c'. Bracketed step-by-step movement representation:

1. [_{√P} √tegl-] (root merging with n)

2. [_{nP} [_{√P} √tegl-]₁ [-o] t₁] [TO SPEC, nP]

3. [_{DP} [_{nP} [_{√P} √tegl-]₁ [-o] t₁]₂ [-to] t₂] [TO SPEC, DP]

The data and the representations in (3) show that the gender nominals are formed by merging a gender marker and a root \sqrt{P} (cf. (3 c)) or a stem LP, as in (3 a, b). It is the gender marker itself that nominalizes \sqrt{LP} . The lexical projection \sqrt{P} or LP moves to Spec, nP so that the gender morpheme, an n(ominalizing) head, will surface as suffixed to it. Then, the whole nP moves further to Spec, DP as in the bracketed representation [_{DP} [_{nP} \sqrt{tegl}_j [-o] t_j]_i [-to] t_i] that shows the relevant traces. Recall, from the discussion in Section 2.1.5, that the Bulgarian definite article surfaces as a suffix to the newly formed noun. Note that I am proposing that the order of the suffixes in the nominal sequence is derived via

phrasal movement exclusively.¹¹ It obtains by the same morpho-phonological procedure that results in English constructions showing the so-called Saxon Genitive (i.e. [_{DP} *John* [_D 's] (*friend*)] according to Abney's (1987) now classical proposal.

As for the status of movement operations involved, I will claim that all movement up to Spec, nP is syntactic. However, I consider the movement of the nominalization [nP, √/(LP)] up to Spec, DP, where the definite article is attached, as post-syntactic, driven by morphological wellformedness conditions. Recall from section 2.1.5 that the definite article in Bulgarian should always obey Wackernagel's (1892) law and thus appears invariably in the second position DP internally. Thus, in case there is no external argument projected, as in (3) above, the moving of nP to Spec, DP is, in my analysis, a post-syntactic operation. In case an external argument is projected, and in case it appears in the Genitive, the nominalization moves up to Spec, nP but not any further. When the DP merges with nP, it is the external argument, in the Genitive, that moves up to Spec, DP, leaving the rest of the nominalization in Spec, nP. Such a movement is, in my analysis, syntactic, driven by case checking requirements and at the same time satisfying wellformedness conditions (cf. § 4.1.4).

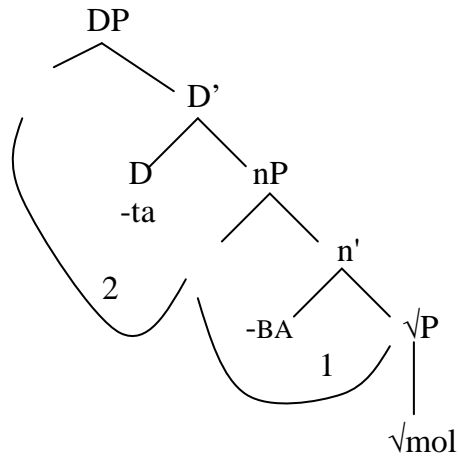
The same procedure as the one in (3) holds for the 'other-suffix' nominals as shown in (4) below. The only difference with respect to the previous ones is that the nominalizer is now the suffix already inflected for inherent gender, and not just the gender morpheme:

(4) *The Syntax of 'Other-suffix' nominals*

a. *Feminine* (mol-BA 'request', kraž-BA 'stealth', gresh-KA 'error', pochiv-KA 'rest', [PRI-kaz]-KA 'story', [IZ-misl]-ITSA 'invention', [PO-prav]-KA 'correction', among others).

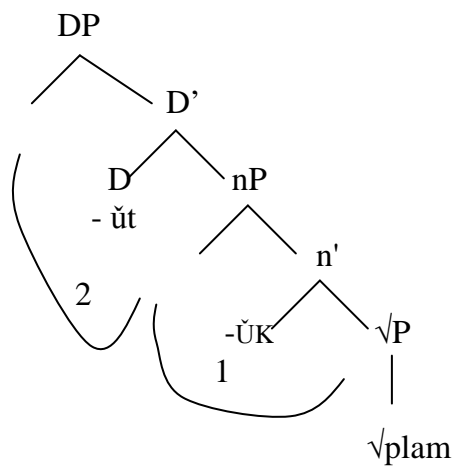
¹¹ In fact, suffixes have been previously analysed as involving head movement (Babko-Malaya (1999), among many others). Yet, see fn. 28 for some problems that such an analysis involves.

mol-BA-ta
 request-BA.FEM.SG-the.FEM.SG
 ‘the request’



b. *Masculine* (rast-EŽ ‘growth’, trjas-ūk ‘bang/loud noise’, plenn-ik ‘captive’, plam-ūk ‘flame’, pal-EŽ ‘arson’, god-EŽ ‘engagement’, sŭrb-EŽ ‘itch’, etc.)

plam- ůK-ůt
 flame- ůK.MASC.SG-the.MASC.SG
 ‘the flame’

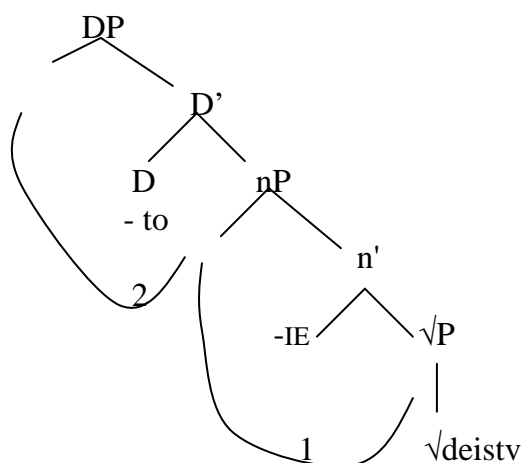


c. *Neuter* ([do-ver]-IE ‘confidence’, [IZ-vest]-IE ‘notification’, [NA-shestv]-IE ‘invasion’, deistv-IE ‘action’, etc.):

deistv-IE-to

act-IE.NEUT.SG-the.NEUT.SG

‘the action’



We have already seen in section 2.2.3 that all gender nouns and the majority of the ‘other-suffix’ nouns denote objects, abstract concepts, agents, places, results of actions, etc. There are some cases of ‘other-suffix’ nominals, especially those formed by the suffixes –BA, –EŽ, –ITBA, which can also denote events.¹² One way to account for this fact is to suggest that it is the suffix that brings about the eventive reading of these nouns as proposed by Georgiev (1999).¹³ We have other evidence in favor of this suggestion, obtained from the derivation of these nouns, that may help us explain their eventive interpretation. In my view, it is the presence of a *verbal thematic vowel* that is responsible for it, rather than the presence of the suffix itself.¹⁴ To see how it can be so, let us take a

¹² Reichenbach (1948) claims that ‘**happen, take place, occur**’ can be only predicates of Events. Thus, whenever a nominalization appears as the subject argument of these predicates, it is event-denoting in my analysis.

¹³ Georgiev (1999) claims that suffixes do play a role in the eventivity nature of nominalizations. For him, suffixes like –BA/-ITBA and –EŽ have a very eventive semantics. Thus, the nouns derived by these suffixes could mean immediate, repeated or durative actions. Additionally, he proposes that suffixes may substantivize the action denoted by the verb to different degrees, the most eventive of which is the process –NE one.

¹⁴ In fact, Svenonius (2004a) makes a similar proposal. For him, nominalizations may be formed on ‘verbal roots’ (i.e. roots conventionally considered to be verbal) or verbal stems, including the thematic

noun such as *kraž*-BA ‘stealth’. The root of this noun is $\sqrt{\text{KRAD}}$ and not $\sqrt{\text{KRAŽ}}$. The final consonant of the root [D] is palatalized to [Ž]. To account for palatalization, I follow Svenonius (2004a: 180) who claims that consonant mutation is an important rule of Slavic morpho-phonology. It consists of palatalization of the final consonant of the root before certain suffixes. It has been argued that consonant mutation in the root can reveal the underlying presence of a vowel, which is deleted on the surface (see Halle (1963) and Flier (1972) for Russian; Scatton (1983) for Bulgarian, among others).¹⁵ We may suppose that final consonant palatalization in the nominal *kraž*-BA ‘stealth’ reveals that a vowel deletion process has taken place. Following Svenonius (2004a), I suggest that it is the thematic vowel. The root $\sqrt{\text{KRAD}}$ gets first “verbalized” by a thematic vowel. When the nominalizer –BA attaches to the newly formed verbal stem (i.e, the root and the thematic vowel), such vowel is eliminated and the final [D] of the root softens to [Ž], which indicates vowel reduction. In other words, it is not merely the suffix that brings about the eventive nature of these nouns, but the thematic vowel itself.¹⁶

As for the eventive ‘other-suffix’ –EŽ and –ITBA nominals, we may reanalyze them as containing a thematic vowel as well. Such suffixes may be further decomposed as containing a thematic vowel (-e, -i) and a suffixal element (-Ž and –TBA). The difference between these nouns and the –BA nominals briefly discussed above is that, in the present case, the thematic vowel is overt (-e, -i) whereas in the former case it is covert. Recall that palatalization of the final root consonant signals its underlying presence. Again, it is the thematic vowel and not

vowel. When formed directly on the root, they tend to refer to objects or results of events. If, on the other hand, they are formed on the stem, then they tend to refer to events.

¹⁵ Svenonius (2004a) accounts for this fact by a more general morpho-phonological rule in Slavic, the regressive Vowel-Vowel (hence VV) simplification. That is, he proposes that, for a consonant to mutate, there should be two vowels. For him, certain underlying sequences of two vowels result in palatalization of the preceding consonant. Palatalization takes place when one of the vowels is eliminated.

¹⁶ The fact that suffixes cannot bring about eventivity on their own is revealed by their ambiguous interpretation. There are cases where the same suffix could form result/object nominals and cases when it derives an event noun. Let us consider the suffix –BA. When it attaches to a root as in $\sqrt{\text{mol}}$ -BA (request) the noun denotes an object. If, on the other hand, it attaches to a verbal stem as in *kraž*-BA ‘sale’ we obtain an event interpretation. Thus, (i) is grammatical but (ii) is not:

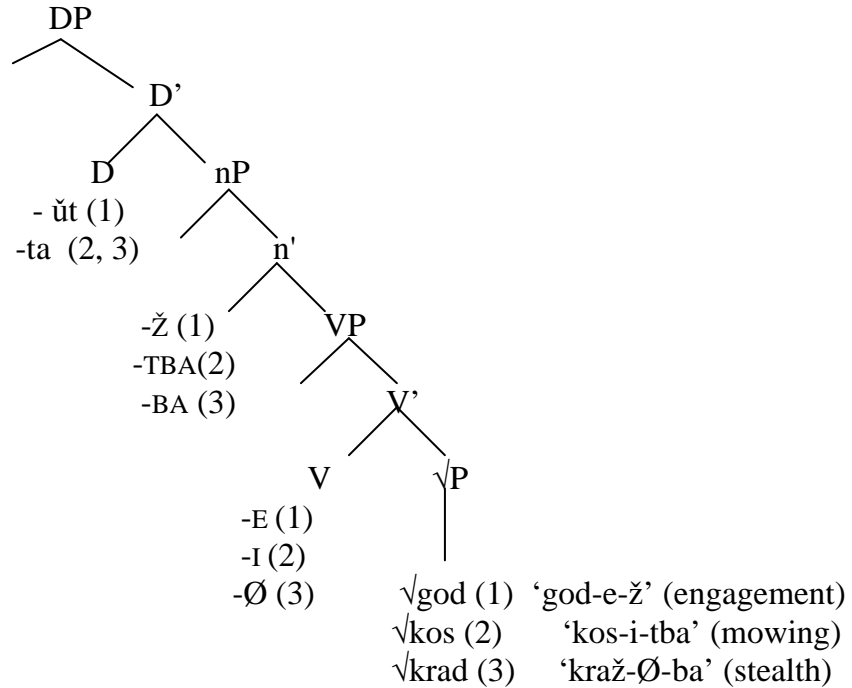
(i) *kraž*-BA-ta stana v 3 chasa (the sale occurred at 3 o’clock)

(ii) **mol*-BA-ta stana v 3 chasa (*the request occurred at 3 o’clock)

The same holds for some English suffixes such as *-(t)ion* (see Grimshaw 1990).

the suffix that accounts for the eventive nature of such nominals. A possible syntactic derivation of these nouns is represented in (5) below:

(5) *Eventive ‘other-suffix’ nominals* (kraž-Ø-BA-ta ‘the sale’, pal-E-Ž-ūt ‘the arson’, kos-I-TBA-ta ‘the mowing’, etc.):



From the representation in (5) we see that the derivation of these nouns is again obtained by movement of maximal projections from Spec to Spec. In (6) below I present the movement operations observed in (5) with the corresponding traces:

(6) Movement operations: *god-e-ž-ūt* ‘the engagement’

a. [_{VP} √god-] (ROOT MERGING WITH V)

b. [_{VP} [_{VP} √god-]_j [-E] t_j] TO [SPEC, VP]

c. [_{nP} [_{VP} [_{VP} √god-]_j [-E] t_j]_i [-Ž] t_i] TO [SPEC, nP]

d. [_{DP} [_{nP} [_{VP} [_{VP} √god-]_j [-E] t_j]_i [-Ž] t_i]_h [-ūt] t_h] TO [SPEC, DP]

If we compare the representation (5) with those in (4) above, we can see that there is an additional layer in the derivation of these nouns, the VP projection. I consider V a “verbalizer” that contains the thematic vowel.¹⁷

In conclusion, there are two ways of forming what I have labelled as ‘other-suffix nominals’:

- (i) Either by overt suffixation as in (2) above where the suffixes [-BA, -KA, -IE, (E)Ž, among others] carry an inherent gender marker, or
- (ii) By simply adding a gender marker to the root or the stem as represented in (1) above.

In the case of feminine or neuter nouns, the gender marker is overt and realised by the suffixes [-a] or [-o/-e] respectively. In the case of masculine nouns, the gender marker is covert [Ø] as in (1a). Yet, in both cases, what nominalizes the root (or the stem) is either the gender morpheme (be it covert or overt) or an overt suffix with inherent gender.

As for the interpretation of these nouns, the majority of them denote objects or results. Yet, we have also seen that they may denote events, a fact that I can explain by considering that the presence of a thematic vowel additionally “verbalizes” the structure. My analysis supports Svenonius’ (2004a) claim that verbal thematic vowels play a crucial role in the interpretation of nominalization processes.

¹⁷ The syntactic object ‘V’, labeled as “verbalizer” here, is headed by the thematic vowel(s) in my analysis. It should not be confused with the “small \bar{v} ”. The specifier of “small \bar{v} P” will host the agent/causer argument (see ftn. 37, 38).

4.1.2. The “Voice –IE” nominalizations

The second type of nominalizations in Bulgarian is what I label the “Voice –IE nominals”. These are the expressions formed on past passive participial verbal bases.

We have already mentioned that Bulgarian grammarians claim that there are two types of nominalizations in Bulgarian, the process –NE nouns and the result –NIE ones¹⁸ (Pashov 1999, Georgiev 1999, Steinke 1999, DV&M 2006, Gradinarova 1999, Popova 2006, among others). Contrary to previous assumptions, I claim that all the cases of the traditionally labelled –NIE nominals are, in fact, instantiations of –IE nouns. In my analysis, the –IE suffix attaches to the past passive participial base of both perfective and imperfective verbs.¹⁹ Such a claim is diachronically sound. Vinogradov and Svedova (1964) state that diachronically, –NIE nominals in Russian are byproducts of passive verbal formation. The suffix –NIE was added to the passive participle in an unrestricted way. If the passive participle was non-existent, a dummy passive morpheme was added to the verbal stem in order to keep the nominalization pattern consistent.²⁰ In addition to the diachronic facts, we also have syntactic evidence obtained from the derivation of these nouns that clearly shows that they are formed on past passive participial bases.

¹⁸ Recall that the –NIE nominals are traditionally considered to be derived from both perfective and imperfective verbal bases *versus* the –NE ones which are formed exclusively on imperfectives ones (Pashov, 1999).

¹⁹ Passive participles can be formed on both perfective (i) and imperfective (ii) verbal bases in Bulgarian:

(i) prodade-n	(ii) prod-ava-n
sell.PF-n.PASS.PRT	sell-ava.IMPF-n.PASS.PRT
‘sold, which is sold’	‘sold, which was being sold’

²⁰ Concerning this fact, there is a small group of –NIE nominals in Bulgarian that cannot be analysed as being derived on past passive participial bases due to the fact that the corresponding verb doesn’t have such a participle. Additionally, they cannot be instantiations of neuter ‘other-suffix’ –IE nominals in the same way as *deistv-IE* (action) is (cf. 4c). A possible explanation for this fact is to consider that these nouns have entered Bulgarian directly through Russian. In fact, all of these nominalizations do exist in Russian. Having in mind that the –NIE suffix enters Bulgarian through Russian, this is a plausible explanation. Such nouns are *padenie* ‘fall/disgrace’, *priznanie* ‘confession’, *kolebanie* ‘hesitation’, *bdenie* ‘watch over’, *sūzdanie* ‘creation’, *napreženie* ‘tension’, *mūlchanie* ‘silence’, *sūvpadenie* ‘coincidence’, *sūmnenie* ‘suspicion’, *sūstojanie* ‘state/status’, *tūrpenie* ‘patience’, among others.

The past passive participles in Bulgarian are formed by either a –T suffix or an –N one. The –T suffix is found in a limited number of verbs, all from the first conjugation.²¹ An example is given in (7):

- (7) a. *pija* > *pi-h* > *pi-t*
 drink > drink-h.AOR.1PS.SG²² > drink-T.PASS.PRT
 drink > drank > drunk

a'. *pi -t -ie -to*
 drink-T.PASS.PRT-IE.NEUT.SG-the.NEUT.SG
 ‘the drink’

- b. *brūsna* > *brūsna-h* > *brūsna-t*
 shave > shave- h.AOR.1PS.SG > shave-T.PASS.PRT
 shave > shove > shaven

Other verbs form the past passive participle with the suffix –N. An example is provided in (8) below:

- (8) a. *pisha* > *pisa-h* > *pisa-n*
 write > write-h. AOR.1PS.SG > write-N.PASS.PRT
 write > wrote > written

a'. *pis -a -n -ie -to*
 write-a.TH.vow-N.PASS.PRT-IE-the.NEUT.SG
 ‘the writing’

- b. *cheta* > *cheto-h* > *chete-n*
 read > read- h.AOR.1PS.SG > read-N.PASS.PRT
 read > read > read

²¹ See fn. 39, chapter 2.

²² The passive past participle is formed from the Aorist stem of the verbs. The Aorist suffix –*h* is deleted and the participial suffix –T/-N is added.

When a nominal is derived from a –T participial base, we can observe that the –T suffix is preserved as in (7a’). If the participle is formed by an –N suffix then the nominalization takes –N as in (8a’). My analysis of the facts supports the claim that these nouns do, in fact, derive from participial bases and not simply from perfective or imperfective aorist stems as has traditionally been considered.

Additional support for such a claim is provided by the interpretation of these nouns. The past passive participle is used to express the result that the action has onto the object (Pashov (1999: 205)). In the nominalization process, this is preserved in the majority of cases. Thus, a participial –IE nominalization such as ‘*pis-a-n-ie-to*’ (Cf. 8a’) means ‘writing, the thing that has been written’, *izobret-e-n-ie-to* ‘invention, the thing that has been invented’, etc. What is more, almost all of the –IE nominals denote results of actions (or some abstract concepts such as *vŭzpit-a-n-ie* ‘upbringing’) *versus* the –NE nominals which denote processes (DV&M 2006, Pashov 1999, Georgiev 1999, Popova 2006). There is also a small group of event denoting –IE nouns, but they have an exceptional character and will not be of my particular concern in the present context.²³

Still further evidence for the participial derivation of the –IE nouns is obtained from transitivity-related phenomena. Passive past participles obtain mainly from transitive verbs, which take an internal argument.²⁴ A syntactic

²³ We can account for this fact historically. The –NE suffix is typically Bulgarian. To the best of my knowledge, it is found in no other Slavic language. This suffix appears in Bulgarian later than the –NIE one through colloquial speech (in the XIX century, as claimed by Gradinarova 1999). This could make us think that at former stages, when only the –IE nominals existed (or Rappaport’s (2000) –N/-T or the traditional –NIE nouns), both processes and results could be denoted by them, as the unambiguously process –NE nouns were still lacking. In fact, the same happens in Macedonian and Czech, for example, where there is no opposition –NIE vs. –NE, but only –NIE nouns. Thus, the –NIE nouns in these languages can denote both results and processes (the same holds for the rest of the Slavic languages, which lack the –NE pattern as well). As for Bulgarian, we may further speculate that once the –NE suffix enters the language, a distinction can be made between the process interpretation of the –NE nouns *versus* the preferable result interpretation of the –(N)IE ones. The fact that there are some –IE nominals that denote (atelic) events (such as *gonenie* ‘persecution’) could be due to the fact that these nouns probably have preserved their double interpretation from previous stages of development in Bulgarian before the –NE nouns enter the language. Yet, this is an exceptional case as the majority of the –(N)IE nominals denote results or some abstract concepts.

²⁴ There are, however, cases of intransitive past passive participles but they are very limited. An example is given in (i):

representation of their derivation is offered in (9a) with the relevant step-by-step movement operations involved as in (9b) below:

- (9) Pis -a -n -ie -to
 write-a.TH.VOW-N.PASS.PRT-IE-the.NEUT.SG
 ‘the written (thing), the writing

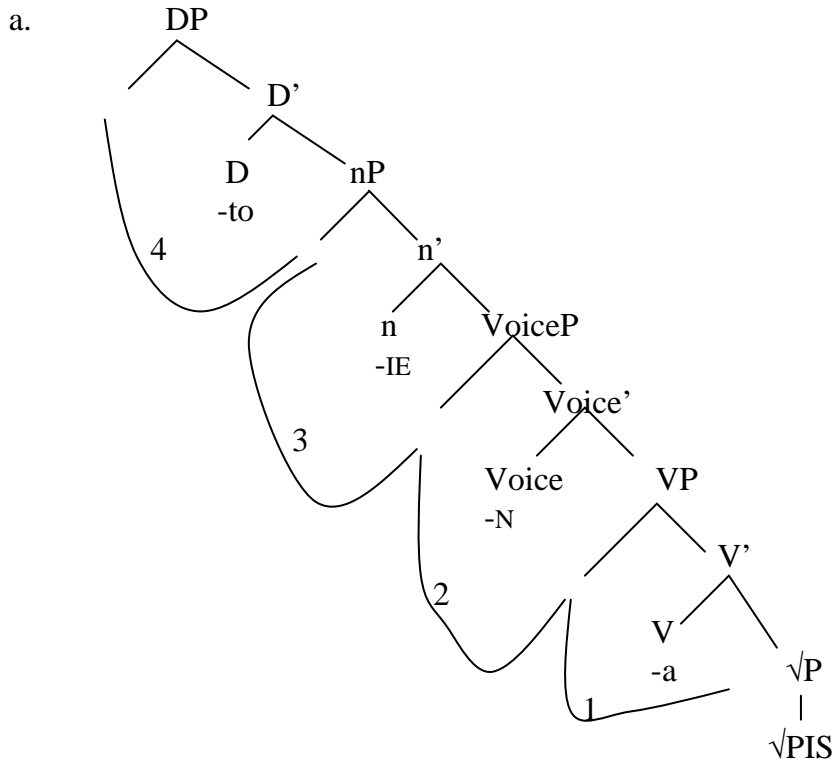
-
- (i) vūzgordja-h > vūzgordjia-n chovek
 become proud-h. AOR.1PS.SG > become proud-N. PASS.PRT man
 became proud > a man who is proud/ a proud man

Similar cases of intransitive past passive participles are *zasmjan* ‘smiling’ (like ‘who is smiled’), *usmihnat* ‘smiling’, *zagrižen* ‘preoccupied’, *zamislen* ‘thinking’, *vūzbuden* ‘excited’, *otdaden* ‘dedicated’, among a few others. Yet, these forms would not result in an –IE derived nominal due to the fact that another suffix is attached when nominalized, namely, the suffix –OST/(-EST) used for the derivation of abstract deadjectival nouns (*mlad* ‘young’ – *mlad-OST* ‘youth’, *gord* ‘proud’- *gord-OST* ‘pride’, etc). An example is given below:

- a. *zagrižen* > *zagrižen-OST*
 preoccupied . PASS.PRT > preoccupied. PASS.PRT-OST
 preoccupied > preoccupation (the state of being preoccupied)

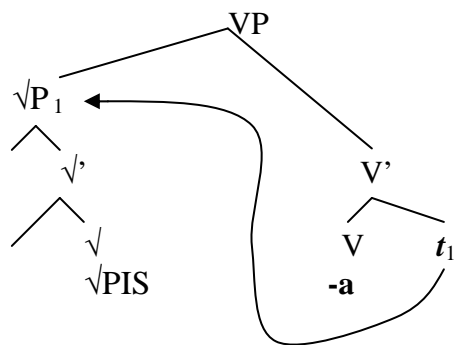
- b. *vūzbuden* > *vūzbuden-OST*
 excited- PASS.PRT > excited- PASS.PRT-OST
 excited > ‘excitedness’ (the state of being excited)

Due to the scarcity of examples of intransitive passive past participles and to the fact that they are nominalized by the abstract suffix –OST and not -IE, I would not examine them furthermore in this study. It could be claimed that they denote states or some abstract concepts in the same way that deadjectival nouns do. Additionally, we may also suggest that examples like those in (a) and (b) above are not intransitive past passive nominalizations but a case of adjectival passives, i.e., intransitive past passive participles which have first become adjectivized and then nominalized by adding the –OST/-EST adjectival suffixes.

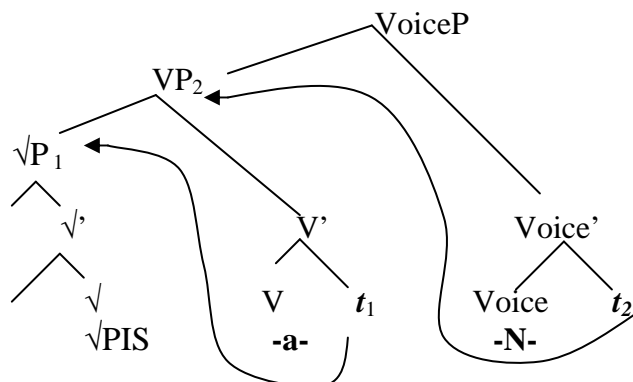


b. Step-by-step movement operations:

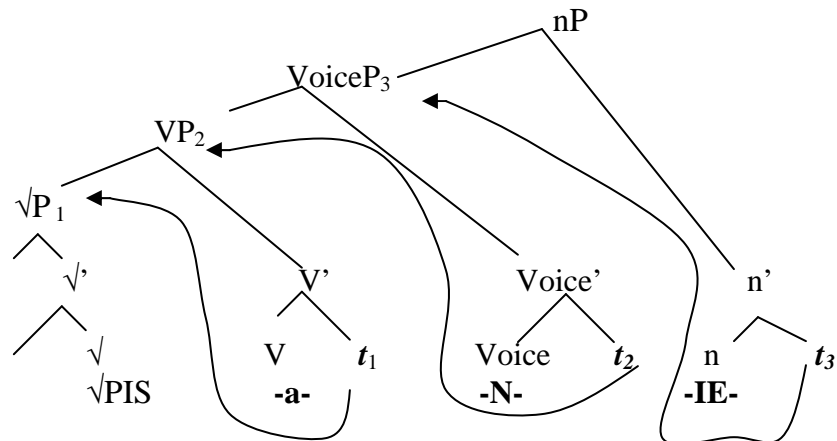
1. Verbalization: Root merging with V in Spec, VP:



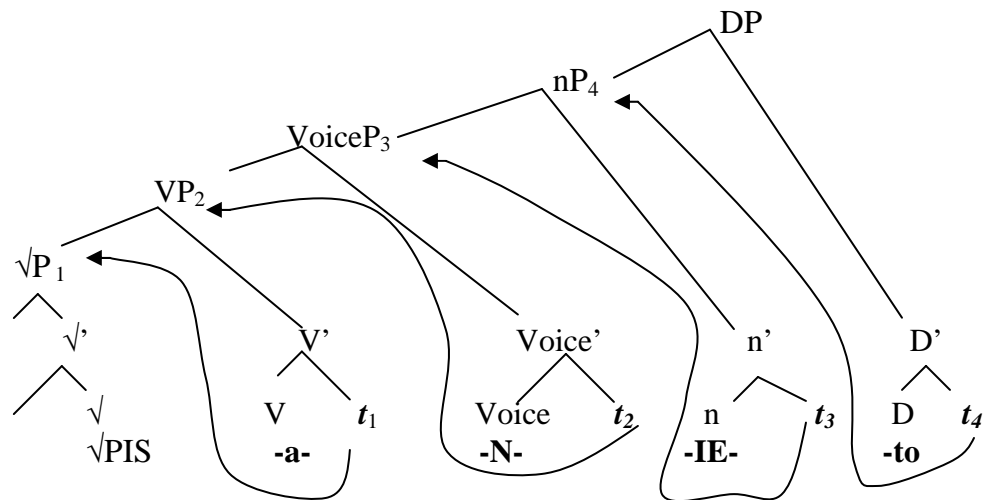
2. [VP, √P] moves to Spec, VoiceP



3. [VoiceP, VP, \sqrt{P}] nominalizes by moving to Spec, nP



4. [nP, VoiceP, VP, \sqrt{P}] attaches the definite article by moving to Spec, DP



From (9) we see that thematic vowels (‘-a’ in this case) are “verbalizers” according to my analysis; that is, they turn a categoriless root into a verbal stem.²⁵ In my view, this is a necessary step to make, so that the participial morphemes – N/-T could further be licensed and attached up. In the previous section we saw that thematic vowels give an eventive interpretation to the derived nominal. In the case

²⁵ Svenonius (2004a) makes a similar proposal for thematic vowels in the Slavic languages which he calls ‘theme vowels’. In his analysis (and in mine too), the thematic vowel is what makes a root a verbal stem. In a similar way as Marantz’s (2001) proposal, a root is categoriless unless it combines with some categorical head (the thematic vowel in my analysis here).

of the Voice –IE nominals this is not the case. Although –IE nominals contain a thematic vowel, in the majority of cases they denote results of events or objects.²⁶ This is due to the presence of the participial morpheme. Participial suffixes, in my analysis, are Voice heads (see Cinque 1999²⁷ and Ferrari 2006) that have the effect of turning a verbal stem into a participle, thereby assigning a resultative meaning to the derived noun. In other words, it is the participial suffix –N/-T that neutralizes the otherwise eventive denotation that the thematic vowel would assign. The fact that Voice is hierarchically up in the structure explains why the participle scopes over the thematic vowel, bringing about the result interpretation to the corresponding nominalization. The present analysis further supports the claim that these nouns are really formed on past passive participial bases. This is the reason I label these nouns as “Voice –IE nominals”.

As in my previous analyses, the derivation proceeds by XP raising to Spec positions. The sequential order of successively merged syntactic objects for the noun *pisanieto* ‘the writing’ in (9), for example, is obtained as shown in the above representation: by four successive phrasal movements in a similar way as the ‘other-suffix’ nouns already examined above (cf. 9b).²⁸ Recall from section 4.1.1 that any movement up to Spec, nP is syntactic whereas the movement of nP to Spec, DP is post-syntactic. This is so because there is no external Genitive argument projected in the nominalization in (9).

Having discussed the main characteristics of the basic derivation of the morpheme sequences for Voice –IE nominals, I now proceed to discussing the

²⁶ See footnote 23 for a possible explanation of event-denoting Voice –IE nominals which have an exceptional character.

²⁷ Following Cinque (1999:101-103), all past participles of active and passive verbs are initially generated under VoiceP.

²⁸ Following Cinque (2000, 2005), I consider phrasal movement only. It has been suggested that head movement poses some problems. Mahajan (2000), for example, claims that head movement is (i) counter-cyclic, (ii) complicates the notion of c-command because a raised head doesn’t c-command its trace in a straightforward manner, (iii) it doesn’t affect meaning, as opposed to XP movement. Cinque (2000) argues for XP movement exclusively within DP. For him, the order of syntactic objects can be derived by successive leftward movement of larger and larger XPs. The same remnant movement (but without pipe-piping the containing phrase) may be involved in the traditionally considered N to D raising. Similar proposals for phrasal movement are found in the works of Kayne (1994, 2000, 2001, 2002, 2003), Koopman and Szabolcsi (2000), and Ferrari (2006).

syntactic analysis of the traditionally considered ‘process’ –NE nouns in Bulgarian.

4.1.3. The –NE nominals

We have seen in section 2.2.1 that the –NE nominals are unanimously labelled as ‘deverbal’ nominals in the Bulgarian linguistic tradition (Pashov 1999, Georgiev 1999, Steinke 1999, Gradinarova 1999, DV&M 2006, among many others). All grammarians agree on the fact that these nouns denote processes, as they are formed on imperfective verbal bases exclusively. Yet, I will show in this section that there is more diversity that is generally acknowledged in this type of nominalization and that a more fine-grained analysis is needed than the ones that have previously been considered in the literature. More concretely, I propose that –NE nominals can be divided in two major groups:

(10) *The –NE nominals:*

- a. The gerundive construction
- b. The derived nominal construction.

I will start the discussion with the first group (10a).

In Bulgarian, there is no such form as a “typical” gerund. Nevertheless, bare –NE forms can be used as gerundive-like constructions in this language.²⁹

²⁹ Bulgarian –NE gerundive forms do not have all the functions of the English or Romance gerunds but just the one observed in (11a). There is, though, another form in Bulgarian, the so called Verbal Adverb (‘*deprichastie*’) that can take over another function of a gerundive construction. The Verbal Adverb is used to denote a secondary action simultaneous to the state of affairs denoted by the verbal predicate. It is formed only from imperfective verbs with the suffix *-jki* (-йки) attached to their aorist stem. These forms can be only used when the subject of the primary action and that of a secondary one coincide. An example is given in (i):

(i) Detsata tichaha iz dvora, **smee-jki** se i **vdiga-jki** strashen shum.

The children were running in the yard, **laughing** and **making** terrible noise.

As denoted by its traditional name ‘*deprichastie*’ (dee/active-participle), this form has more in common with participles (the active present participle) than with gerunds. The –NE gerunds, though, cannot have this function although English and Romance ones do. This shows that languages may use different morpho-syntactic devices for one and the same function, which is, in fact, no surprising news. In relation

Like verbal gerunds, bare –NE constructions take a direct object without any preposition, as we can see in (11a) below. These particular constructions do not license a definite determiner and never allow for the article to be attached to them. In (11b) we see that the construction is ungrammatical if the definite article appears at the right of the NE-formation:

- (11) a. [o-chak]-va-ne velik-a-ta promjana
 wait-va.IMPF-NE great-FEM.SG-the.FEM.SG change.FEM.SG
 waiting the great change
- b. * [o-chak]-va-ne-to velik-a-ta promjana
 *wait-va.IMPF-NE-the.NEUT.SG great-FEM.SG -the.FEM.SG change.FEM.SG
 * the waiting the great change

The behaviour of the examples (11a, b) allows us to suggest that the NE-construction in (11a) behaves in the same way that verbal gerunds in languages like English. These types of constructions should now be compared to those of the type (12) below, which are not verbal gerunds but real derived nominals, similar to what Grimshaw (1990) characterizes as *Complex Event nominals* in English. Constructions of the type (12) not only appear with the determiner but the direct object must be introduced by the preposition *na* ‘of’ (i.e. “*The waiting of the great change*”). Formations of the types (12) are the primary interest of this section and I offer more details on this type of construction in what follows:³⁰

to this claim, there is also another gerundive function of the Bulgarian –NE constructions as presented below:

- (ii) a. na vliza-NE b. predi/sled trügva-NE
 on entering before/after going

DV&M (2006) claim that the –NE nominals in Bulgarian can be used adverbially, as complements of prepositions (cf. § 3.3.1). However, cases like (ii) above cannot be considered nominalizations but, rather, they should be analysed as verbal formations taking over either a gerundive function like the English version ‘*on coming*’, or an infinitival one like the Spanish version ‘*al entrar*’.

³⁰ I use the abbreviation IMPF to refer to the (secondary) imperfective suffix –*va* (or one of its allomorphs –*a*-, *ja*-, –*ava*-, –*java*-, –*uva*-).

- (12) [o-chak]-va-ne-to *(na) velik-a-ta promjana
 wait-va.IMPf-NE-the.NEUT.SG of great-FEM.SG -the.FEM.SG change.FEM.SG
 The waiting of the great change

Traditionally, -NE nominals have been claimed to denote processes and never results (as opposed to ‘-NIE’ or the ones I have labelled “Voice –IE” nouns). However, and contrary to previous assumptions, I will show that the process reading is not the only one available for such nominalizations. Apart from it - which is always available in every –NE nominal- there are cases when the –NE nouns denote objects as well, as shown in (13):³¹

(13) **Object-denoting –NE nominals:**³²

a. *Transitive –NE nouns:*

- | | | |
|-----------------|-------------------|---------------------|
| (i) jad-e-ne | pi-e-ne | im-a-ne |
| eat-e.TH.VOW-NE | drink-e.TH.VOW-NE | have-a.TH.VOW-NE |
| ‘meal/eating’ | ‘drink/drinking’ | ‘possession/having’ |

(ii) *Resultative prefixed –NE nominals:*³³

- | | |
|----------------------|-------------------------|
| [s-puk]-va-ne | [o-drask]-va-ne |
| [s-crack]-va.IMPf-NE | [O- scratch]-va.IMPf-NE |
| puncture/cracking’ | ‘scratch/scratching’ |

b. *School disciplines:*

- | | |
|------------------|--------------------------|
| pe-e-ne | smjat-a-ne |
| sing-E.TH.VOW-NE | calculate-A.TH.VOW-NE |
| ‘singing’ | ‘arithmetic/calculating’ |

³¹ Gradinarova (1999) gives many examples where the –NE nominals have ‘concrete’, or, in her terms, ‘non-verbal’ uses. Yet, her primary concern is the semantics of –NE and –(N)IE nominalizations in Russian and Bulgarian thus paying no attention to their syntactic derivation.

³² All of the examples are taken from Gradinarova (1999).

³³ Examples taken from Gradinarova (1999: 118).

c. *Intransitive result –NE nouns:*

vjar-va-ne	[za-bol]-java-ne
believe-va. IMPF-NE	become ill-java. IMPF-NE
‘belief/ <i>believing</i> ’	‘illness/ <i>becoming ill</i> ’

d. *Impersonal result –NE nouns:*

sŭm-va-ne
dawn-va. IMPF-NE
‘dawn, daybreak/ <i>dawning</i> ’

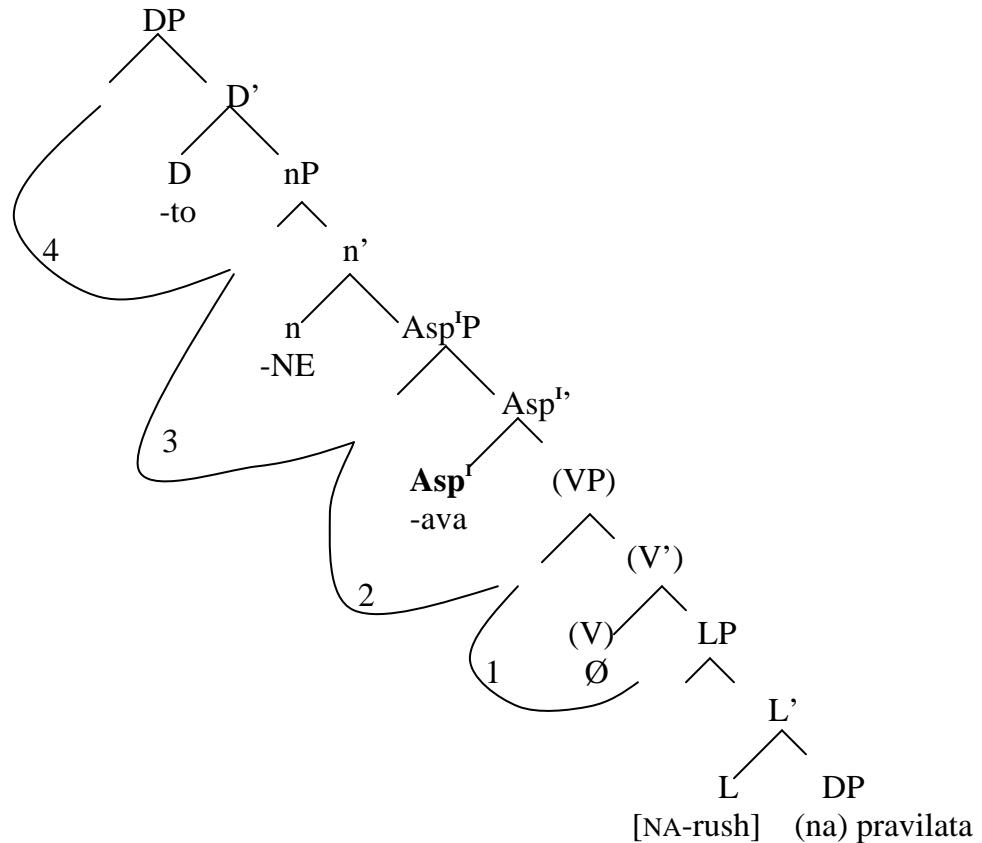
From the glosses of the examples above we can see that though the –NE nominals may denote some kind of object or result,³⁴ the process reading is always available (marked in italics in the glosses). We may explain this fact historically. Gradinarova (1999) claims that the –NE suffix enters Bulgarian in the XIX century when the –NIE suffix was still very productive. In the XX century, however, the –NIE one is no more productive. This may suggest that as the –NIE suffix fades, the –NE one takes over its functions. Thus, when a new result noun was derived, the suffix that served this function was the –NE one (from the XX century onwards). It always preserves its traditional process denotation though it could develop a secondary result meaning when the context may allow such reading. This observation is also supported by Gradinarova’s (1999) claim that the non-verbal, or result meanings of the –NE nominals are newly formed, i.e., once the old –NIE suffix disappears.

The –NE constructions are always formed on imperfective verbal bases (see section 2.2.1).³⁵ This fact allows me to propose the syntactic representation given in (14):

³⁴ Note that something similar happens in English too. The Bulgarian –NE suffix corresponds to the English –ING in various respects: (i) they can form gerunds; (ii) they can always derive complex event nominals in Grimshaw’s (1990) terms; (iii) sometimes, they can also denote objects. Borer (2003) comments on cases of object-denoting –ING nominals such as ‘building, drawing, etc’ which contradicts the traditional assumption that the English –ING nouns are event denoting exclusively.

³⁵ A close relationship between the –NE nominals and the past passive participle is suggested by Nandris (1959) and Stoyanov (1966). Yet, to claim that these nouns derive from the past passive participial base, like their ancestor, the ‘-(N)IE nominals’, would wrongly predict that intransitives will not nominalize, and that the participial morpheme, be it –T or –N, would be preserved in the nominalization. Neither of

- (14) [NA-rush]-ava-ne-to na pravil-a-ta
 violate-ava.IMPF-NE-the.NEUT.SG of rule-PL-the.PL
 The violating of the rules



From the representation above we see that the lexical category shows the prefix [NA-], which indicates that we have a stem LP and not simply a root. We could arguably say that the root is “verbalized” in the Lexicon and then enters the Numeration as a stem. If so, there might be no verbalizing projection (VP) present in the structure. This solution would also allow for the imperfective suffix *-ava* to attach to the LP stem after LP movement. For the sake of uniformity and consistency with some of our previous representations, we could also consider that

the two predictions holds. Bulgarian *-NE* nominals can be formed from any verb, both transitive (cf. 13) or intransitive (cf. 13c), and the *-T* suffix never appears as shown in (i):

(i) *brūsna* ‘shave’ > *brūsna-a-T* ‘shaven’ > *brūsna-e-NE* ‘shaving’

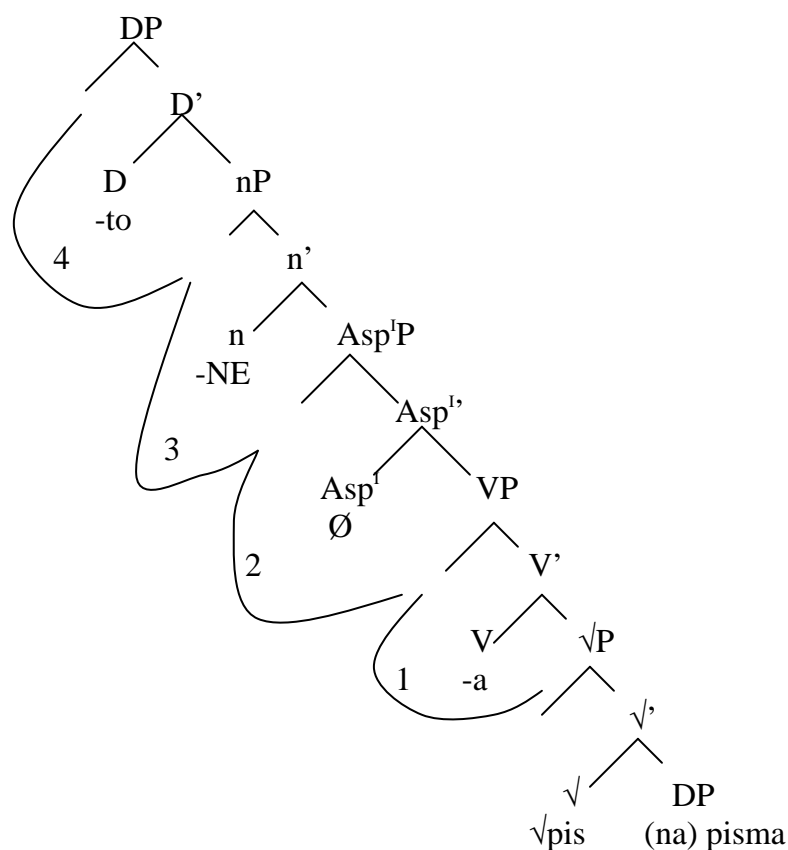
pija ‘drink’ > *pi-T* ‘drunk’ > *pi-e-NE* ‘drinking’ (vs. *pi-T-IE* ‘a drink’: Voice *-IE* noun).

Additionally, such a claim would also wrongly predict that the *-NE* nouns, if derived from participles, could be formed on both perfective and imperfective bases. However, these nouns can be never formed on perfective bases. Thus, the *-NE* nouns cannot be participial nominalizations versus the *-IE* ones, which we saw can do so.

a VP headed by a phonologically null thematic vowel merges with LP, as shown above. Be as it may, and in order to account for the fact that these nouns are derived on imperfective verbal bases only, I derive the secondary imperfective morpheme ‘*-ava*’ as the head of the functional projection Aspect Imperfective Phrase (Asp^IP).³⁶ I suggest that it is the imperfective suffix, overt (cf. (14)) or covert (see (15) below), the syntactic object that accounts for the availability of the process reading of these nouns. In (15) we see that sometimes the imperfective suffix may not be overtly expressed:

- (15) pis-a-ne-to na pisma
write-a.TH.VOW-NE-the.NEUT.SG of letter-PL
The writing of letters

³⁶ Remember that in Bulgarian, and in the rest of the Slavic languages, verbs can have both perfective and imperfective forms. In order to make a perfective form imperfective, we add the secondary imperfective suffix ‘*-va*’ or one of its allomorphs (see § 5.1 for more details). Svenonius (2004a: 181) regards *-(a)va* and its variants *-ova*, *-uva*, etc. as a thematic vowel. Yet, in my analysis, these secondary imperfective suffixes are derived as heads of Asp Imperfective Phrase (hence, Asp^IP). A similar proposal is made by Isratkova (2004) who claims that the secondary imperfective morpheme ‘*-va*’ is the overt expression of imperfectivization derived in an Asp node. Ramchand (2004), on the other hand, suggests that the secondary imperfective morpheme is the instantiation of the same Aspect head which otherwise expresses perfectivity.






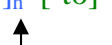
In (15) we see that Asp¹P, though present, is not overtly expressed. This is due to the fact that the verb ‘*pisha*’ (write) is primary imperfective, i.e. it needs no secondary imperfective suffix to make it imperfective. This may further suggest that the unmarked option is the imperfective which is syntactically present but phonologically null (like, for example, the masculine gender, the singular number, or VP in (14) above). Thus, there may be an imperfective projection with a phonologically null head.

As for the morphological order of suffixes on these nouns, recall once more that I propose (following Cinque 2000, 2005; Mahajan 2000; Ferrari 2005) that only phrasal movement is possible (see ftn. 28). Thus, the lexical projection \sqrt{P} first moves to Spec, VP and the thematic vowel (the phrasal head and a bound morpheme) attaches to the raised root at the morphophonological component. The same procedure keeps applying towards the upper Spec positions. The complex [VP, \sqrt{P}] moves to Spec, Asp¹P headed by the imperfective aspectual morpheme, which will also morphophonologically attach to such stem. The newly formed complex [Asp¹P, VP, \sqrt{P}] raises further up, to Spec, nP, where it gets

“nominalized”. This is the category headed by the nominalizing element –NE. Finally, the whole [nP, Asp¹P, VP, √P] structure moves to Spec, DP so that the definite article, also a suffix in Bulgarian, will appear to its right. Recall from section 4.1.1 that this is a post-syntactic movement operation required by morphological wellformedness conditions where the definite article should always appear in the second position DP internally obeying, thus, the Wackernagel’s (1892) law.

A step-by-step representation of the movement operations involved in (15), with the corresponding traces, is provided in (16) below:

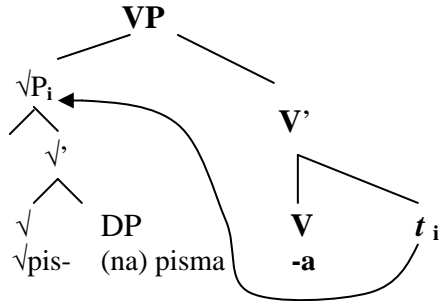
(16) Bracketed step-by-step representation:

- a. [_{√P} √pis-] (ROOT MERGING WITH V)
- b. [_{VP} [_{√P} √pis-]_j [-A] t_j] TO [SPEC, VP]

- c. [_{Asp¹P} [_{VP} [_{√P} √pis-]_j [-A] t_j]_i [Ø] t_i] TO [SPEC, Asp¹P]

- d. [_{nP} [_{Asp¹P} [_{VP} [_{√P} √pis-]_j [-A] t_j]_i [Ø] t_i]_k [-NE] t_k] TO [SPEC, nP]

- e. [_{DP} [_{nP} [_{Asp¹P} [_{VP} [_{√P} √pis-]_j [-A] t_j]_i [Ø] t_i]_k [-NE] t_k]_h [-to] t_h] TO [SPEC, DP]


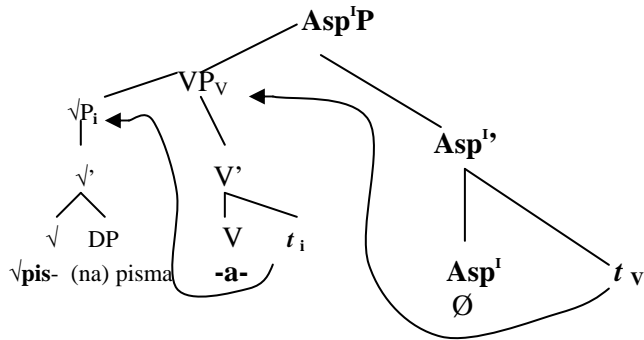
For esase of exposition, I provide the same step-by-step movement operations from (16), but represented by syntactic trees, in (17) below:

(17) Step-by-step movement:

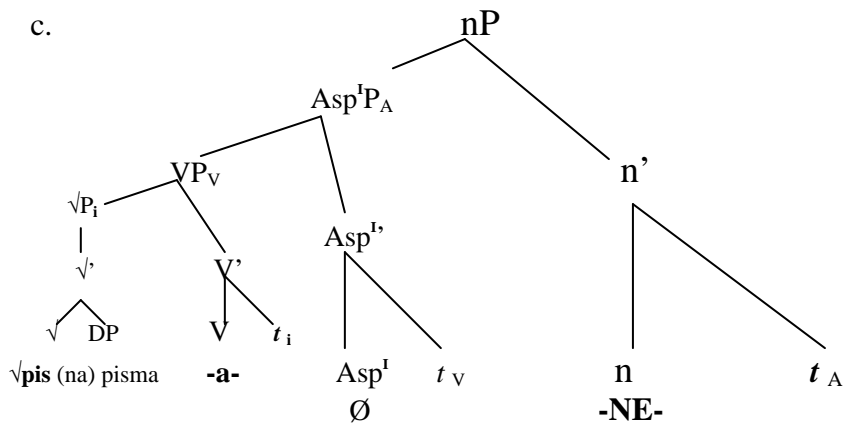
a. [_{VP} √pis-] (ROOT MERGING WITH V)

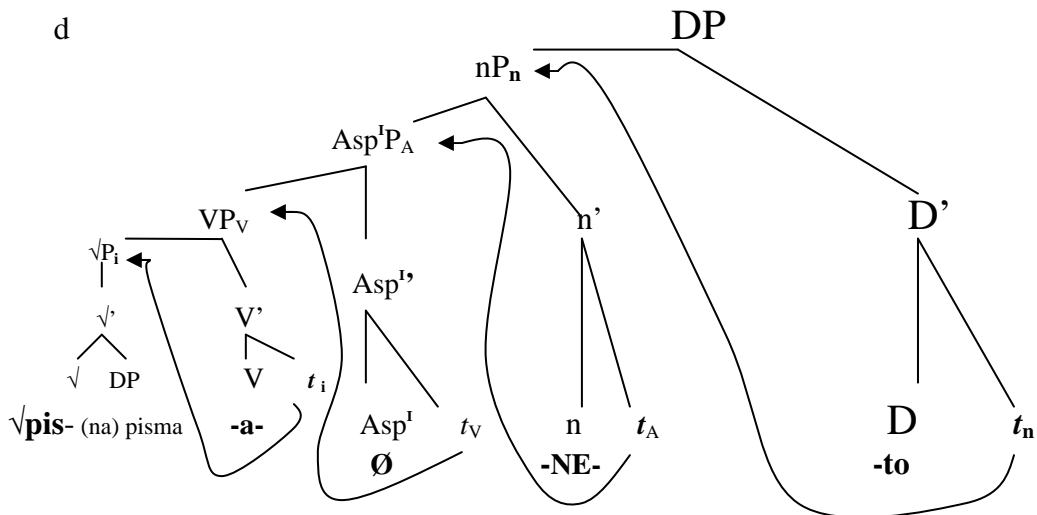


b.



c.

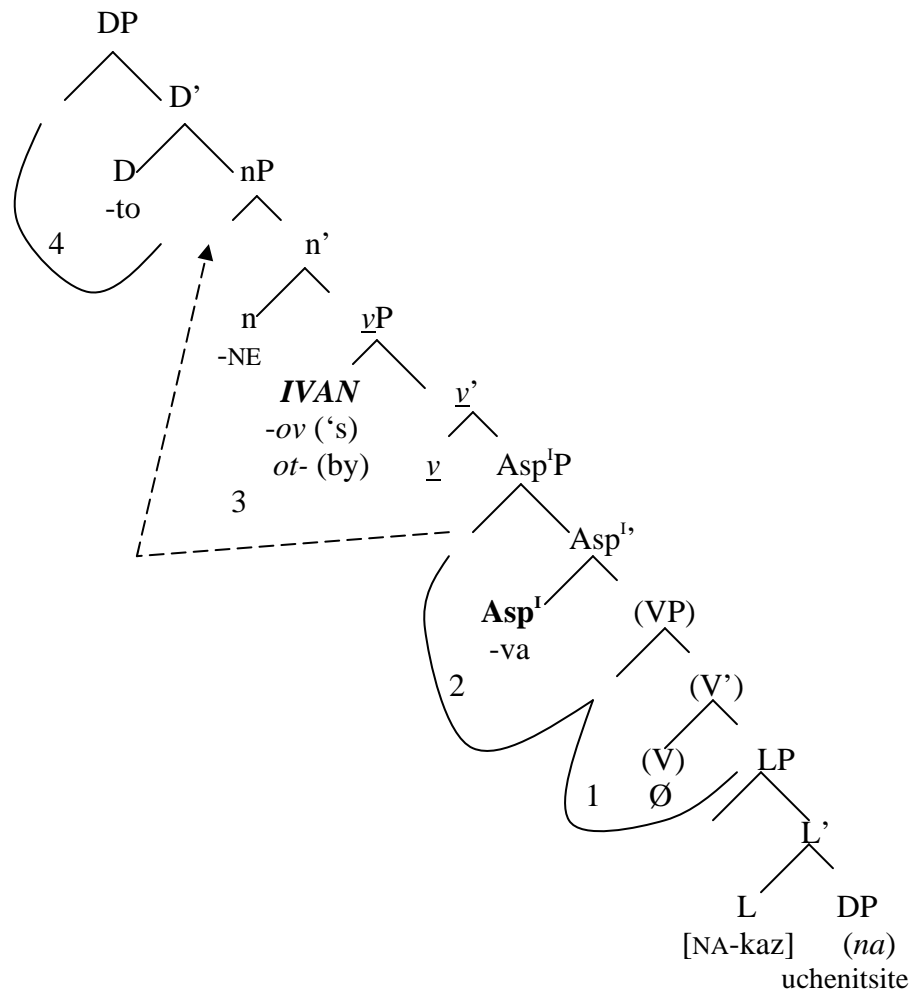




The derivation above, as well as other derivations with relatively similar characteristics, pose an apparent problem for the XP raising hypothesis for suffixation that I am adopting in this study. The apparent problem is that of accounting for the right sequence of morphemes when lexical heads select, or license, complements. Note that the step-by-step derivation represented in (17) above shows that the lexical root $\sqrt{\text{pis-}}$ ‘write’ may license the DP complement *(na) pisma* ‘of letters’ which is, of course, also moved up in the first raising cycle together with the $\sqrt{\text{P}}$ that immediately dominates the DP. Such a DP keeps remnantly raising with its $\sqrt{\text{P}}$ host in each of the subsequent XP raising operations (see (17a-d) above). The suffixes *-a-Ø-NE-to* must keep attaching to the root $\sqrt{\text{pis-}}$, the construction resulting in the final sequence *pis-a-Ø-NE-to na pisma* (lit: ‘writing-the of letters’, i.e. ‘the writing of letters’).

After the first raising operation, the derivation cannot result in the impossible sequence **pis- na pisma-a-Ø-NE-to* (something literally similar to: **write- of letters-ing-the*), which could hypothetically have resulted if the suffixes attach to the DP complement and not to the root by successive XP raising.

This apparent problem is taken care of under the theory of Phases proposed in Chomsky (2001 et seq.), according to which Spell-Out operations apply cyclically. A *Phase* is a coherent and independent (phonological and semantic) unit and constitutes a domain on which the Spell-Out operation applies, “sending”



From the derivation in (18) we see that Ivan merges with $\underline{v}P$.³⁸ For it to be able to be interpreted as the Agent (Causer), we should have either (i) *ot*-NP ‘by-NP’ insertion (18a), or (ii) Genitive assignment by the suffix *-ov*³⁹ corresponding to English [‘s] as in (18b).

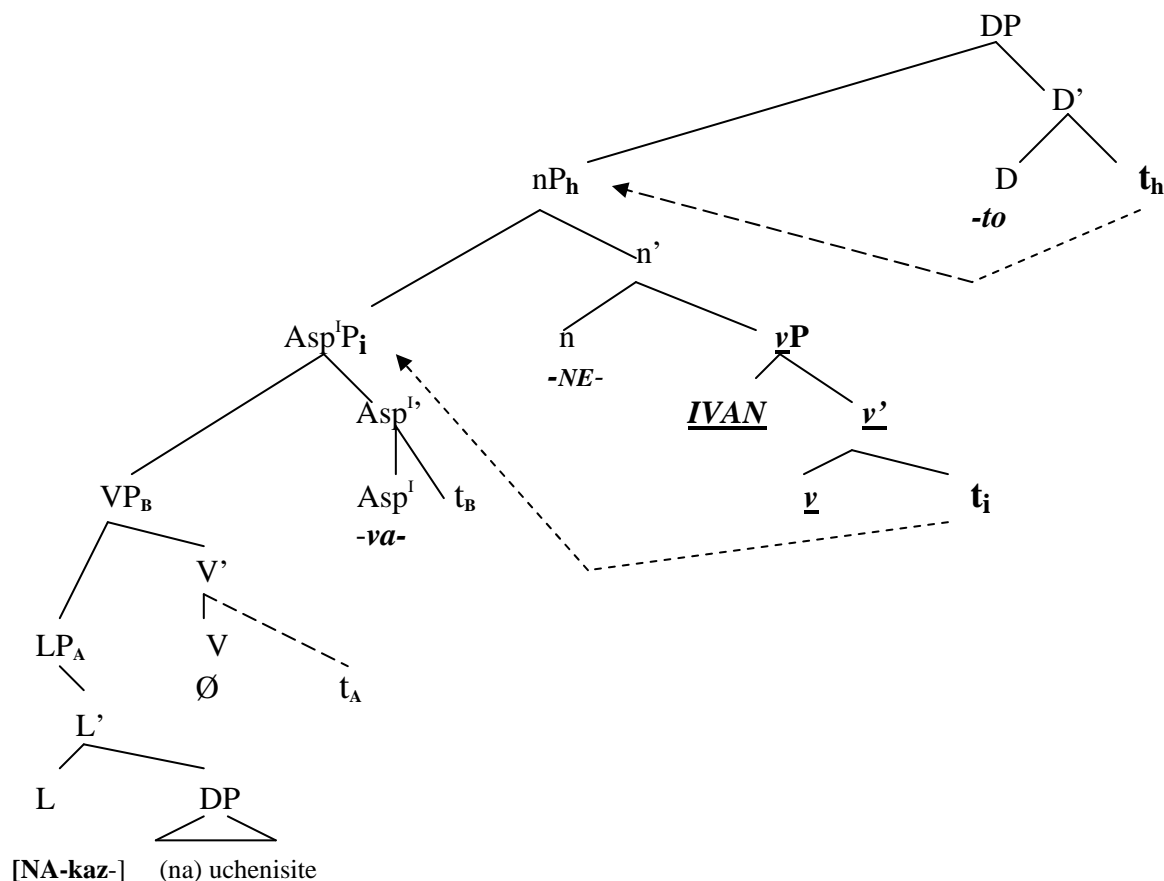
³⁸ In fact, the $\underline{v}P$ projection is needed not only to host the Agent/Causer in its specifier position but also to account for the causative-inchoative alternation. That is, in Bulgarian, and in many other languages, there are causative morphemes which make a verb causative. Consider the examples below:

- | | | |
|------|--|--|
| (i) | (a) Az pjah dva chasa
I sang two hours
‘I sang for two hours’ | (b) Az RAZ- pjah petel-a
I CAUS-sang cock-the.MASC.SG
‘I made the cock sing’ |
| (ii) | (a) Az se smjah dva chasa
I se-REFL laughed two hours
‘I laughed for two hours’ | (b) Az RAZ- smjah bebe-to
I CAUS-laughed baby-the.NEUT.SG
‘I made the baby laugh’ |

From the examples above we see that if we add the causative prefix ‘RAZ-’ to a verb we causativize this verb. Additionally, the insertion of this morpheme may also make an intransitive verb transitive (iib), yet, the causative reading is present too. Thus, we may tentatively suggest that causative morphemes, in this case the prefix ‘RAZ-’, is the head of a small $\underline{v}P$. In case the \underline{v} head is occupied by a causative morpheme, the external argument, projected in the specifier of $\underline{v}P$, is interpreted as the Causer.

³⁹ The genitive NP is formed by a personal noun such as Ivan to which the genitival suffix *-ov* (for masculine personal nouns) or *-in* (for feminine) is attached:

- (i) Masc: Ivan > Ivan-**ov** (Ivan’s) (ii) Fem: Penka > Penk-**in** (Penka’s)



In a similar way as the derivation in (17), there is no possibility for attaching any suffix to the DP complement of the stem (*na uchenitsite* ‘of the students’) in (19). This is so because such complements constitute Phases and are thus invisible for any morphosyntactic operations as the derivation of the nominalization proceeds up to the dominating DP. Therefore, the only possible obtainable sequence is [NA-kaz-]- \emptyset -va-NE-to *na uchenitsite* (‘the punishing of the students’) but not the ungrammatical *[NA-kaz-]- *na uchenitsite*- \emptyset -va-NE-to (*‘punish-of the students- \emptyset -ing-NE-the’). A similar explanation can be provided for the intervening \bar{v} P between the Asp^IP and the nominalizer phrase nP that hosts the external argument. Adopting the theory of Phases (Chomsky 2001), the DP *Ivan-* in the Specifier of \bar{v} P constitutes a Phase. Thus, in the same way as the DP complement of the stem, it is invisible for any morphosyntactic operations and doesn’t intervene during the derivation of the nominal structure.

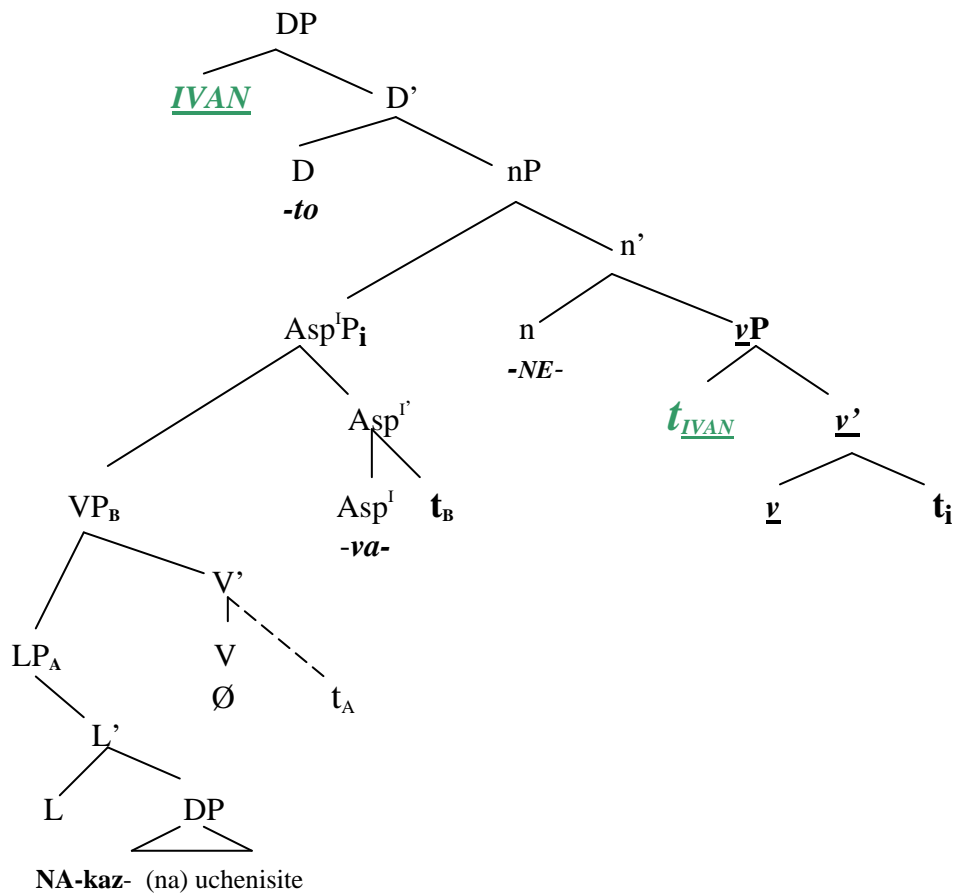
I will claim that the small $\bar{y}P$ remains in the complement position of nP, at its right. As said, this projection contains in its specifier the prepositional phrase *ot*-NP (by-NP) where the external argument *Ivan* is inserted. The preposition *ot* ‘by’ assigns oblique case to the external argument Ivan. That is, once case assignment takes place, the external argument is frozen for further movement.

However, when the external argument is introduced by a Genitive NP, such as ‘*Ivan-ov*’ (Ivan’s) (18b), the situation is different because this argument appears in the leftmost position and it is the element that hosts the Determiner. Consider the derivation in (20):

(20) The external argument: Genitive Case marking: *-ov* (‘s):

Ivan-ov-o-to	[NA-kaz]-va-ne	na uchenits-i-te
Ivan- ov .GEN-o.NEUT.SG-the.NEUT.SG	punish-va.IMP-NE	of student-PL-the.PL
Ivan’s punishing of the students		

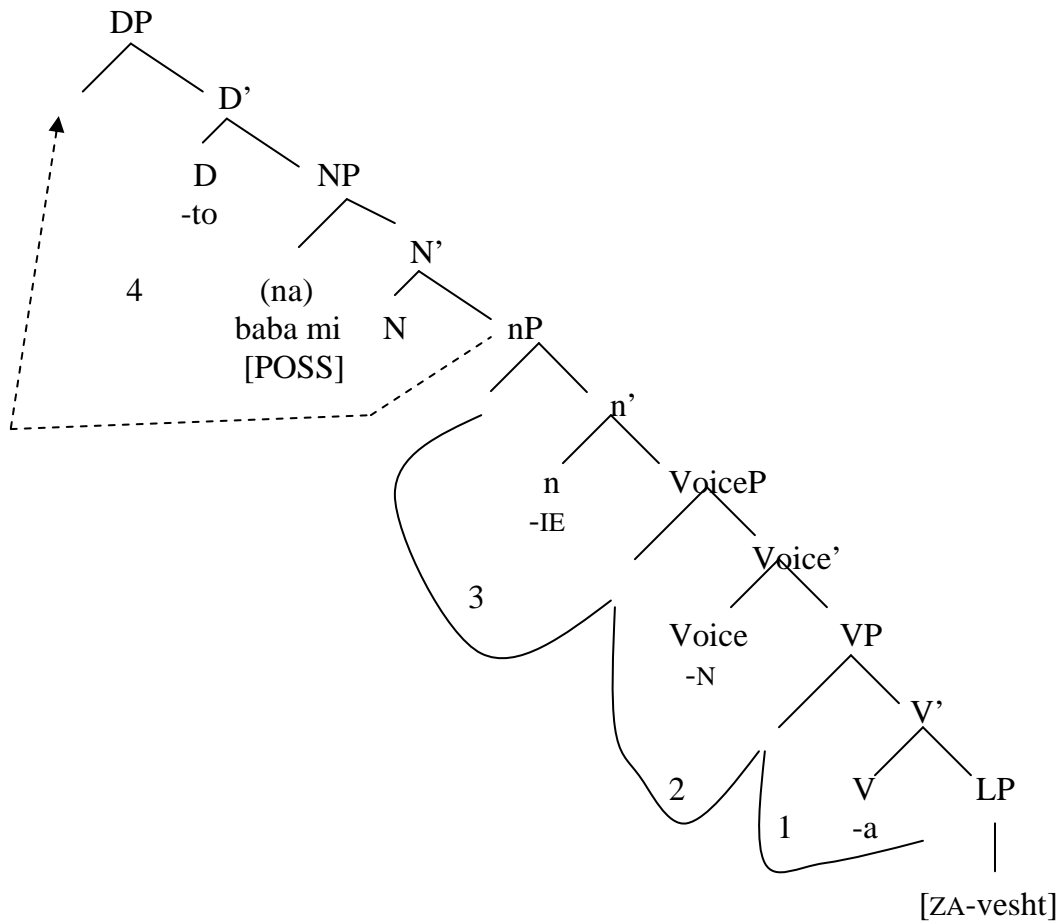
Derivation: *Ivan-* raises from [Spec, ν P] to [Spec, DP] position (bypassing [Spec, nP], occupied by Asp^IP):



The word order in the grammatical sequence shows that it is not the nominalization that moves to Spec, DP to attach the definite article (vs. 19: 4) but the external argument. That is, it must be the external argument, which shows Genitive inflection, the projection that must move to Spec, DP to attach the definite article, leaving the rest of the nominalization in Spec, nP. We may suggest a reason for this. The external argument, in Spec, ν P, must move to Spec, DP to check or receive case. The definite article, the suffix *-to*, should always occupy the second position in the DP, under Wackernagel's law (cf. chapter 2). It should therefore appear suffixed to the raised Genitive external argument and in second position.

We have some evidence for the fact that the Genitive external argument *Ivanov* (Ivan's) undergoes raising, unlike the prepositional external argument

b. Syntactic representation:



In the same way as the nominalization in (19), the one in (21) involves four XP movement operations as well. Thus, the stem LP first moves to Spec, VP to attach the thematic vowel [-a]. The newly formed complex [VP, LP] then moves to Spec, VoiceP where it attaches the participial suffix [-N-]. After this, the whole structure [VoiceP, VP, LP] nominalizes by moving to Spec, nP where the nominalizer head [-IE] attaches. The external argument *na baba mi* 'of my grandmother' merges in Spec, NP. The fact that it is introduced by the preposition *na* (of) suggests that it is assigned oblique case by this preposition. Thus, in a similar way as the nominalization (19), the external argument is frozen in place and doesn't move further up in the derivation. This further suggests that, in order to satisfy Wackernagle's law for the second position of the definite article, the rest

of the nominalization [nP, VoiceP, VP, LP] is what moves higher up to Spec, DP where the definite article [-to] is attached.

The claim that the external argument, when it doesn't refer to the Agent/Causer, is projected in Spec, NP is supported by Longobardi's (2003) proposal that the arguments of the head noun are hierarchically ordered DP-internally in a way roughly similar to that found in clauses. Longobardi (2003) suggests that thematic subjects (e.g. agents) are higher than direct objects (e.g. themes) and other complements. Additionally, DP also allows for another argument, or quasi-argument, to appear. This quasi-argument is the so-called Possessor. Longobardi claims that Possessors are hierarchically higher than subjects, i.e. agents, (Longobardi (2003: 562-563)). My representation in (20) captures such a hierarchy, i.e. that Possessors are higher than Agents.

In my analysis, Spec, NP is thus occupied by external arguments which allow for various interpretations: Possessors, Experiencers, Sources, Goals, etc. These external arguments are not real notional subjects of the nominalization. Rather, they are quasi-external arguments. A real notional subject, in my analysis, would be only Agents or Causers projected in Spec, \bar{v} P (cf. 18, 19, 20).

I assume, without much discussion, that one may arguably consider that the mark of structural or inherent Case is the preposition *na* (of).⁴⁰

Having discussed the basic characteristics of the morphosyntax of Bulgarian deverbal nominals, I devote the next section to support some of my previous proposals by showing that the difference in the syntactic composition of nominal constructions results in a difference in their syntactic behaviour as well. In §4.2.1, we will see that only some –NE nouns can have an argument structure, following in this way the behavior of English complex event nominals (Grimshaw 1990). These types of nominalizations never allow for a possessive interpretation

⁴⁰ The preposition '*na*' in Bulgarian behaves in a similar way as '*de*' in Spanish (Catalan) and '*of*' in English. It can be used to assign a Possessor theta role, the Theme, the Experiencer or the Creator roles. Sometimes, though, it may also refer to the Agent.

of their external argument whereas other types of nominalizations accept such interpretation. In section 4.2.2 we will further see that all nominalization types accept nominal modifiers. However, some differences are detected on adverbial modification (§4.2.3) and on telicity tests (§4.2.4).

4.2 On the difference between nominalization types in Bulgarian: some tests

4.2.1. Argument structure

In this section I will show that only some transitive and the prefixed process –NE nominals have true argument structure and must satisfy the Projection Principle, i.e, they require their internal arguments obligatorily. The eventive Voice –IE nouns and the eventive ‘other-suffix’ nouns do allow for internal and external arguments to be projected but this is only optional. Thus, I will claim that instead of having argument structure, these eventive nouns (i.e. the eventive Voice –IE, “other suffix”, and some –NE nominals) have a ‘participant’ structure (Grimshaw 1990). As for the rest of the nouns, i.e, the gender-derived nominals and the object-denoting (‘other-suffix’, –IE and –NE) nouns, they have neither argument nor participant structure as they cannot denote events. Instead, I will claim that these nouns have modifiers.

Let’s first consider the case of object-denoting nominals. In (22) I give an example of the gender-derived nouns (22a), the object-denoting ‘other-suffix’ nouns (22b), the object Voice –IE nouns (22c) and the object –NE nominals (22d):

(22) Argument structure: Object-denoting nouns:

a. Gender derived nouns:

[RAZ-kaz]-ŭt *ot/na* Ivan [ot: Source/*Agent; na: Possessor]
narrate-the.MASC.SG **by/from/of* Ivan
The narration **by/from/of* Ivan

From the examples in (22) we conclude that the object-denoting nouns cannot have an event interpretation. They are also unable to take internal arguments (22b, c). Though they accept an external argument, it is introduced by the possessive *na*-NP (of-NP) but it can never have a true agent interpretation. The Agent in Bulgarian can be either introduced by an *ot*-NP (by-NP), a *na*-NP (of-NP), or a genitival NP (marked by the Genitival suffix *-ov*). From the examples above we see that though the *ot*-NP (by-NP) is sometimes acceptable, it denotes the Source but not the Agent (22a, c, c', d').⁴¹ It should be noted that the Source reading is licensed due to the ambiguity of the preposition *ot* which can refer either to the English agentive 'by' or to 'from'.⁴² However, in case of true argument structure –NE nominals, this preposition is always interpreted as the Agent and never the Source.

As for the eventive 'other-suffix' (23a) and Voice -IE (23b) nominalizations, all of them allow for internal and external arguments to be projected. Yet, in neither case is their presence obligatorily required (23a'', b', b''). Additionally, though the Agent interpretation is present in such cases, it is not the only reading available. Apart from it, the Source and Receiver readings are also possible. An example is given in (23):

⁴¹ It can be observed that the object-denoting ('other-suffix, -NE, and -IE) nouns behave like simple concrete nouns. Like simple concrete nouns (i), object nominalizations use the *ot*-NP (by NP) to denote the Source, but never the Agent. In such cases, this preposition should be translated as the English 'from' and not 'by':

- (i) kniga-ta *ot* Ivan
 book-the.FEM.SG **by** Ivan
 The book **from** Ivan
- (ii) [PRI-kaz]-ka-ta *ot* Ivan
 The narration **from** Ivan

If we want to refer to the person who has written the book, we use the possessive *na*-NP 'of-NP'. Yet, the interpretation we get is not truly agentive but it refers to something like an 'intellectual' possessor of the book.

⁴² Prepositions are always difficult to translate from one language to another. That is why we often have approximate translations. For the sake of better comprehension, I will try to offer all of the possible readings of a given preposition (ex. The Bulgarian preposition '*ot*' can have either the Agentive 'by', or the Source 'from' reading).

(23) a. *Eventive ‘other-suffix’ nominals*

a. [PRO-d]-a-žba-ta *na* stok-i *ot* Ivan [*ot*: Agent/Source]
 sell-a.TH.VOW-ŽBA-the-FEM.SG *of* goods.PL *by/from* Ivan
 The sale of goods *by/from* Ivan

a'. [PRO-d]-a-žba-ta *na* Ivan *na* stok-i [*na*: Agent, Receiver of goods]
 sell-a.TH.VOW-ŽBA -the-FEM.SG *of* Ivan *of* goods.PL
 The sale *of/to* Ivan of goods

a''. [PRO-d]-a-žba-ta stana v tri časa
 sell-a.TH.VOW-ŽBA -the-FEM.SG occurred at three o'clock
 The sale took place at three o'clock

b. *Eventive Voice –IE nominals*

b. vūzpít-a-n-ie-to *na* chovek *ot* roditel-i-te mu
 zapochva ot negov-o-to raždane [*na*: Theme, *ot*: Agent]
 upbringing-a.TH.VOW-N.PASS.PRT-IE-THE.NEUT.SG *of* man *by* parent-PL.THE.PL his-
 DAT.CL begins from his-NEUT.SG.the.NEUT.SG birth
 The upbringing *of* a man *by* his parents begins from his birth

b'. sūbr-a-n-ie-to (*na* deputat-i-te)⁴³ prodūlži tri časa
 meet-a.TH.VOW-N.PASS.PRT-IE-THE.NEUT.SG (*of* deputy.PL.the.PL) lasted three hours
 The meeting *of* the deputies lasted three hours [*na*: Agent, Poss]

b''. iztez-a-n-ie-to (*na* zatvornits-i-te *ot* nadziratel-i-
 te) e postojanno
 torture-a.TH.VOW-N.PASS.PRT-IE-THE.NEUT.SG (*of* prisoner-PL.the.PL *by* jailer-
 PL.the.PL) is constant [*na*: Theme, *ot*: Agent]
 The torture *of* the prisoners *by* the jailers is constant.

⁴³ Here, the parenthesis mean that introducing the *na/ot*-NP (of/by-NP) is optional.

The smoking of cigarettes *by/from* Ivan cost him a lot

a'. push-e-ne-to (na₁ Ivan) (na₂ cigar-i) mu izleze skūpo
 smoke-e.TH.VOW-NE-the.NEUT.SG (*of* Ivan) (*of* cigaret-PL) him turned out
 expensive

The smoking *of*₂ cigarettes *of*₁ Ivan cost him a lot [na₁: Agent, na₂: Theme]

b. pe-e-ne-to (na pesen-ta) ne beshe mnogo korektno
 sing-e.TH.VOW-NE-the.NEUT.SG (*of* song-the.FEM.SG) not was very correct
 The singing *of* the song was not very correct [na: Theme]

(25) –NE nominals: obligatory internal arguments:

a. resh-ava-ne-to *(na zadach-i-te po matematika) (ot
 Ivan) mu otne tri chasa
 solve-ava.IMPF-NE-the.NEUT.SG *(*of* exercise-PL.the.PL on mathematics) (*by*
 Ivan) him took three hours [na: Theme, ot: Agent]
 The solving *of* the exercises on mathematics *by* Ivan took him three hours.

b. chup-e-ne-to (na₁ Ivan) *(na₂ chash-i) stana negovo hobi
 break-e. TH.VOW-NE-the.NEUT.SG (*of* Ivan) *(*of* glass-PL) became his hobby
 The breaking *of* glasses *by* Ivan became his hobby [na₁: Agent, na₂: Theme]

c. [IZ-p(e)]-java-ne-to *(na pesen-ta) (ot strana na Maria)
 ne beshe mnogo korektno
 [IZ-sing]-java.IMPF-NE-the.NEUT.SG *(*of* song-the.FEM.SG) (*on part of* Maria)
 not was very correct [na: Theme, ot strana na: Agent]
 The singing to the end *of* the song *on behalf of/by* of Maria was not very correct

From the examples above we again observe that in case the arguments are optional, the external argument can be either introduced by an *ot*-NP (by-NP) as in

(24a) or by a *na*-NP (24a'). Additionally, the *ot*-NP (by-NP), apart from denoting the Agent, can also denote the Source (24a). The internal argument, on the other hand, is always introduced by the *na*-NP (of-NP) but it is also optional. This suggests that these nouns behave exactly in the same way as the eventive participant-structure 'other-suffix' (23a) and Voice –IE (23b) nominals. Thus, they have participant structure but not a true argument structure.

There are nouns that require the presence of the internal argument obligatorily. This happens in cases of some transitive –NE nominals (25a, b) or prefixed ones (25c). The external argument, though, is always optional. It may be introduced by an *ot*-NP (by-NP) as in (25a, c) or by a *na*-NP (of-NP) as in (25b). Yet, when introduced, it unambiguously refers to the Agent (25a, b, c). This further suggests that it is the transitive nature of the verbal base that demands the projection of its internal argument (25a, b). In cases of prefixed nominalizations, we may suggest that the prefix poses some requirements so that the internal argument be obligatorily projected (see chapter 5). Thus, in (24b), when the verbal base *pe(ja)* 'sing' remains unprefixed, the internal argument is optional. Yet, in (25c), when prefixed (*IZ-pe(ja)* 'sing up'), the internal argument is obligatorily required. This shows that contrary to the participant-structure ('other-suffix', Voice –IE and –NE) nouns, these nouns are instantiation of true argument-structure nominals due to the obligatory projection of their internal argument.

Additional support for such a claim is revealed by the fact that the external argument of the argument-structure –NE nominals, when projected, never allows for a possessive interpretation⁴⁵ but always refers to the agent as shown in (26a):

(26) a. *Argument structure –NE nominals:*

Ivan- <i>ov</i> -o-to	[PRO-d]-ava-ne	*(na diamant-i)
Ivan- <i>ov</i> .GEN-o.NEUT.SG-THE.NEUT.SG	sell-ava.IMPf-NE	*(of diamond-PL)
Ivan's selling of diamonds		[- <i>ov</i> : Agent/* <i>Possessor</i>]

⁴⁵ The possessor in Bulgarian can be either realized by a genitive NP (see fn. 39) or by a *na*-NP (of-NP).

a'. Ivan-*ov*-o-to [RAZ-kaz]-va-ne na prikazk-i (*e na masa-ta)
 Ivan-*ov*.GEN-o-NEUT.SG-THE.NEUT.SG narrate-VA.IMPF-NE of story-PL (*is on table-
 the.FEM.SG)
 Ivan's narrating of stories (*is on the table)

b. *Voice –IE nominals:*

Ivan-*ov*-o-to izobret-e-n-ie e na masa-ta
 Ivan-*ov*.GEN-o-NEUT.SG-THE.NEUT.SG invent-e.TH.VOW-N.PASS.PART-IE is on table-
 the.FEM.SG [-*ov*: *Possessor*]
 Ivan's invention is on the table

c. *'Other-suffix' nominals:*

Ivan-*ov*-a-ta kraž-ba (na diamant-i) se publikuva vŭv
 vestnik-a
 Ivan-*ov*.GEN-a-FEM.SG-THE.FEM.SG steal-BA (of diamond-pl) se.REFL published in
 newspaper-the.MASC.SG [-*ov*: *Possessor, Agent*]
 Ivan's stealth of diamonds got published in the newspaper

From the examples above we observe that the possessive interpretation of the external argument is never available with the argument-structure –NE nominals (26a). This is so because it obligatorily denotes the Agent in case the internal argument is inserted. If the internal argument is omitted, and the external one is present, then the external argument is interpreted as the theme. Thus, if we omit the internal argument 'of diamonds' in (26a) the interpretation we get is that Ivan is being sold. This is due to the fact that such nouns require the presence of their internal arguments obligatorily. As for the rest of the nouns, we see that they always allow for a possessive interpretation of their external argument. This may be also due to the fact that these nouns can be used in object-denoting constructions of the kind 'is on the table' (26b), or 'got published'⁴⁶ (26c). The

⁴⁶ Picallo (1991) uses this construction to disambiguate the result vs. process denotation of some ambiguous Catalan nominals. Thus, she claims that expressions denoting events or processes can be placed in time, but only their outcoming result can be published (p. 290).

argument structure –NE nominals never do (26a’). The reason for this is that they denote processes and never ‘simple’ events, results or objects.

4.2.2. Nominal modifiers (Pluralization, Demonstratives, Indefinites and Numerals)

In this section I will show that despite their different semantics, all of the Bulgarian nominalizations accept nominal modifiers. As for the ‘other-suffix’ nominals both the object-denoting (27) and the event-denoting (28) can pluralize (27⁴⁷a, a’; 28a), and can take any kind of determiners such as indefinites (27b, b’; 28b), numerals (27c, c’; 28c), and demonstratives (27d, d’; 28d):

(27) ‘Other-suffix’ object-denoting nouns: Nominal modifiers

a. sresht-i-te s prijatel-i mi dostavjat udovolstvie *[Plurality]*
 meet-PL-THE.PL with friend-PL me give pleasure
 The meetings with friends give me pleasure

a’. [ZA-pis]-k-i-te po istorija sa na masa-ta
 note-KA-PL-the.PL on history are on table-the.FEM.SG
 The notes on history are on the table

b. ima *edin* [RAZ-kaz] za životn-i v kutija-ta *[Indefinites]*
 there is *one*-MASC.SG story about animal-PL in box-the.FEM.SG
 There is one story about animals in the box

b’. ima-sh *edna* gresh-ka na izpit-a po himija
 have-2PS.SG *one*-FEM.SG error-KA on exam-the.MASC.SG on chemistry
 You have one error in the exam on Chemistry

⁴⁷ The examples (27a, b, c, d) refer to gender-derived object nominals whereas those in (27a’, b’, c’, d’) refer to the ‘other-suffix’ ones.

c. *tri-te* glob-i sa mo-i [Numerals]

three-the.PL tax-PL are my-PL

The three taxes are mine

c'. imash *pet* [IZ-vest]-ija ot director-a za тази година

have-2PS.SG *five* notify-IE.PL by director-the.MASC.SG for this.FEM.SG year

You have five notifications from the director for this year

d. *tozi* izbor e okonchatelen [Demonstratives]

this.MASC.SG choose-Ø is definitive

This choice is definitive

d'. *tova* negov-o bezdel-ie ne mi haesva

this.NEUT.SG his-o.NEUT.SG idle-IE not me like

I don't like this idleness of his

(28) Eventive 'other-suffix' nominals: Nominal modifiers

a. kraž-b-i-te na diamant-i sa chesto javlenie tuk [Plurality]

steal-BA-PL-the.PL of diamond-PL are frequent phenomenon here

The stealths of diamonds are frequent phenomenon here

b. vchera stana *edn-a* kraž-ba v tsentūr-a na grad-a

yesterday happened *one*-FEM.SG steal-BA in center-the.MASC.SG of town-

the.MASC.SG

[Indefinites]

A/one stealth took place yesterday in the center of the town

c. *chetiri-te* kraž-b-i na diamant-i v ramkite na edin mesets razoriha

sobstvenik-a

[Numerals]

four-the.PL steal-BA-PL of diamond-PL in period of one month ruined

owner-the.MASC.SG

The four stealths of diamonds in the period of one month ruined the owner.

d. *tozi* god-e-ž vchera mi napomni za star-i-te vremena
 this engage-e.TH.VOW-Ž yesterday me reminded for old-PL-THE.PL times
 This engagement yesterday reminded me of the old times [Demonstratives]

From the data above we see that no matter eventive (28) or not (27), all of the ‘other-suffix’ nominals accept nominal modifiers. The same holds for all of the –IE nominals and the –NE ones. In (29) I give an example of the Voice –IE object-denoting (29a, b, c, d) and eventive (29a’, b’, c’, d’) nouns.

(29) **Voice –IE nominals: Nominal modifiers**

a. pis-a-n-ija-ta na Ivan sa na masa-ta [Plurality]
 write-a.TH.VOW-N.PASS.PRT-IE.PL-the.PL of Ivan are on table-the.FEM.SG
 Ivan’s writings are on the table

a’. sūbr-a-n-ija-ta na aktsioner-i-te stavaha tajno
 meet-a.TH.VOW-N.PASS.PRT-IE.PL-the.PL of shareholder-PL-the.PL occurred secretly
 The meetings of the shareholders took place secretly

b. *edno* zavesht-a-n-ie beshe namereno vchera
one-NEUT.SG will-a.TH.VOW-N.PASS.PRT-IE was found-NEUT.SG yesterday
 One testament was found yesterday [Indefinites]

b’. vseki zatvornik poluchi po *edno* [NA-kaz]-a-n-ie
 every prisoner received by *one*-NEUT.SG punish-a.TH.VOW-N.PASS.PRT-IE
 Every prisoner received one punishment each

c. *tri-te* Ivan-ov-i tvor-e-n-ija specheliha pūrva nagrada
three-the.PL Ivan-ov.GEN-PL create-e.TH.VOW-N.PASS.PRT-IE.PL won first prize
 The three Ivan’s creations/works won first prize [Numerals]

c'. *tri-te* Ivan-ov-i nakaz-a-n-ija v ramkite na edin
mesets dovedoha do negov-o-to uvoln-e-n-ie
three-the.PL Ivan-ov.GEN-PL punish-a.TH.VOW-N.PASS.PRT-IE.PL in period of one
month led to his-NEUT.SG-the.NEUT.SG dismiss-e.TH.VOW-N.PASS.PRT-IE
The three Ivan's punishments in the period of one month led to his dismissal

d. stignah do *tez-i* chetiri zakljuch-e-n-ija [*Demonstratives*]
arrived-AOR.1PS.SG at *this*-PL four conclude-e.TH.VOW-N.PASS.PRT-IE.PL
I arrived at these four conclusions

d'. *tez-i* gon-e-n-ija i iztez-a-n-ija
na ezichnits-i-te ot hristijan-i-te bjaha postojann-i
this-PL persecute-e.TH.VOW-N.PASS.PRT-IE.PL and torture-a.TH.VOW-N.PASS.PRT-
IE.PL of pagan-PL-the.PL by Christian-PL-the.PL were constant-PL
These persecutions and tortures of the pagans by the Christians were constant

From the facts in (29) we see that all of the –IE nominals accept any nominal modifier. Thus, object-denoting –IE nouns accept Pluralization (29a), Indefinites (29b), Numerals (29c), and Demonstratives (29d). Similarly, the eventive participant-structure –IE nominals allow such modification as well, as observed in (29a', b', c', d') respectively. This suggests that the eventive denotation of such nouns doesn't block nominal modification. The same holds for the –NE nouns.

I provide examples for the object-denoting (30a, b, c, d) and process (30a', b', c', d') –NE nominals below:

(30) **The –NE nominals: Nominal modifiers**⁴⁸

a. chest-i-te [za-bol]-java-n(e)-ija na Vasil me plashat
frequent-PL-the.PL become ill- java.IMPF-NE-PL of Vasil me scare
The frequent illnesses of Vasil scare me [Plurality]

a'. [sŭ-bir]-a-n(e)-ija-ta na dokazatelstv-a ot advokat-a mu otne tseli
pet mesets-a
gather-A.IMPF-NE-PL-the.PL of proof-PL by lawyer-the.MASC.SG his took entire
five month-PL
The gatherings of proofs by his lawyer took five entire months

b. vchera stana *edn-o* goljam-o [ZA-drŭst]-va-ne na kol-i
pred dom-a mi [Indefinites]
yesterday happened *one*-NEUT.SG big-NEUT.SG jam-va.IMPF-NE of car-PL
in front of home-the.MASC.SG my
Yesterday one big jam took place in front of my home

b'. *edn-o* [PO-vish]-ava-ne na zaplat-i-te se ochakva ot vsichk-i
one-NEUT.SG raise-ava.IMPF-NE of salary-PL-the.PL se.REFL await by all.PL
One raising/increasing of the salaries is awaited by everyone

c. ima samo *tri* vižd-a-n(e)-ija po vŭrpos-a [Numerals]
there are only *three* see-A.IMPF-NE-PL on question-the.MASC.SG
There are only three points of view on the question

c'. posledn-i-te *tri* mo-i izliz-a-n(e)-ija na kino bjaha mnogo
zabavn-i
last-PL-the.PL *three* my-PL go out-A.IMPF-NE-PL to cinema were very
amusing-PL
My last three going outs to the cinema were very amusing

⁴⁸ Remember that some intransitive –NE nominals don't usually have a plural form (ex. *mechtane* 'dreaming', *mislene* 'thinking', etc.)

d. *tov-a* tvo-e [s-hvasht]-a-ne ne e praviln-o
this-NEUT.SG your-NEUT.SG understand- A.IMPF-NE not is correct-NEUT.SG
 This understanding of yours is not correct [Demonstratives]

d'. *tez-i* tvo-i chest-i pis-a-n(e)-ija po tsjala nosht me plashat
this-PL your-PL frequent-PL write-A.TH.VOW-NE-PL at all night me scare-PL
 These frequent writings of yours (during) all night scare me

From the data in (30) we conclude that the object-denoting –NE nouns accept pluralization (30a), indefinites (30b), numerals (30c) and demonstratives (30d). The same holds for the process –NE nominals (cf. 30a', b', c', d', respectively). In the case of process –NE nominals, it should be noted that when in the plural, they may sometimes agree with the verb in singular (30a')⁴⁹. In this case, all of the 'gatherings of proofs' are viewed as a whole process and the stress is on the process and durative meaning of the nominalization. This never happens with the plural event –IE and 'other-suffix' nouns as they always agree with the verb in plural. In case the plural –NE nominal agrees with the verb in plural (30c', d'), the interpretation obtained is either repetitive (30d') meaning that 'every night there is someone who writes', or the emphasis is put on the instantiations of undergoing the verbal action (30c') meaning that each instance of 'going out to the cinema' was amusing.

What becomes clear is that not only the object-denoting ('other-suffix' (27), Voice -IE (29a, b, c, d) and –NE (30a, b, c, d)) nouns accept nominal modifiers, but the eventive participant-structure ('other-suffix' (28), -IE (29a', b', c', d'), and –NE (30d')) nominals and the process argument-structure –NE nouns (30a', b', c') allow it too. Thus, eventivity seems not to block nominal modification in the nominalizing process as any type of nominalizations accept such modifiers.

⁴⁹ 'otne' (took) is in the singular vs. 'otne-ha' (took.PL) which is in the plural.

4.2.3. Adverbial modification

In this section I will show that the nominalizations behave differently with respect to adverbial modification.⁵⁰ The object-denoting nominals don't accept adverbials or adverbial-related adjectives (31). Result nominals, on the other hand, allow for manner modification (31a: ii) or for the adjective 'frequent' (31a: iv). As for the eventive nouns, all of them (the participant-structure: 'other-suffix', Voice –IE and –NE nouns, and the argument-structure –NE ones) accept time (32) and manner (33) adverbials (or adverbial-related adjectives). Differences are observed as far as agent-oriented adjectives (34) and the adverbial-related adjective 'frequent' (35) are concerned. The relevant examples are provided below.

(31) Object-denoting nouns: Adverbial modification

(a) *Object 'other-suffix' nominals*

(i) *Time adverbials*

*[U-kras]-a-ta *vchera* ot Ivan
decorate-FEM.SG-the.FEM.SG *yesterday* by Ivan
*the decoration yesterday by Ivan [**Ivan decorated something yesterday*]

(ii) *Manner adverbial adjectives*

spokojn-ijat [RAZ-kaz] na Ivan za životn-i-te
calm-the.MASC.SG narrate of Ivan about animal-PL-the.PL
The calm narration/story of Ivan about the animals [*Ivan narrated calmly*]

⁵⁰ Direct modification by adverbials is rarely allowed inside a nominalization. This is due to the fact that adverbs modify verbs, not nouns. Thus, instead of adverbs, we have adverbial-related adjectives inside the nominals in the majority of cases.

(iii) *Agent-oriented adverbials*

***narochn-a-ta** [ZA-pis]-ka po istorija
deliberate-FEM.SG-THE.FEM.SG note-KA on history
*The deliberate note on history [*I noted down deliberately]

(iv) *The adjective 'frequent'*

chest-i-te [PO-kup]-k-i na Ivan
frequent-PL-the.PL buy-KA-PL of Ivan
The frequent buyings of Ivan [*Ivan buys frequently*]

(b) *Object Voice –IE nominals*

(i) *Time-related adverbials/adjectives*

*zavesht-a-n-ie-to **vchera** na baba mi
will-a.TH.VOW-N.PASS.PART-IE-the.NEUT.SG **yesterday** of grandmother my
*The testament yesterday of my grandmother
[**My grandmother made her testament yesterday*]

(ii) *Manner adverbials/adjectives*

***spokojn-o-to** pis-a-n-ie na Ivan
calm-NEUT.SG-the.NEUT.SG write-a.TH.VOW-N.PASS.PART-IE of Ivan
*The calm writ(ing) of Ivan [*Ivan wrote something calmly*]

(iii) *Agent-oriented adjectives*

***narochn-o-to** zavesht-a-n-ie na baba mi
deliberate-NEUT.SG-the.NEUT.SG will-a.TH.VOW-N.PASS.PART-IE of grandmother my
*The deliberate testament of my grandmother

[*the grandmother made the testament deliberately]

(iv) *The adjective 'frequent'*

**chest-i-te* pis-a-n-ija na Ivan
frequent-PL-the.PL write- a.TH.VOW-N.PASS.PART-IE.PL of Ivan
*the frequent writings of Ivan [*Ivan writes frequently]

(c) *Object –NE nominals*⁵¹

(i) Time-related adverbials/adjectives

*[ZA-bol]-java-ne-to *vchera* na Ivan
become ill-java.IMPF-NE-the.NEUT.SG *yesterday* of Ivan
The illness yesterday of Ivan [*Ivan got ill yesterday]

(ii) Manner adverbials/adjectives

**razumn-o-to* vižd-a-ne po vŭpros-a
judicious-NEUT.SG-the.NEUT.SG see-a.IMPF-NE on question-the.MASC.SG
*the judicious view on the question/topic [*I viewed the topic judiciously]

(iii) Agent-oriented adjectives

**naroch-o-to* [ZA-drŭst]-va-ne na kol-i pred doma mi
deliberate-NEUT.SG-the.NEUT.SG jam-va.IMPF-NE of car-PL in front of home my
*the deliberate jam of cars in front of my home [*Cars jammed deliberately]

⁵¹ These nouns, in fact, always allow for adverbial modification because the process reading is always available. Yet, in case we want to stress the object interpretation, this is not possible.

(iv) The adjective ‘frequent’

**chest-i-te* [ZA-bol]-java-n(e)-ija na Ivan
frequent-PL-the.PL become ill-java.IMPF-NE-PL of Ivan
*the frequent illnesses of Ivan [**Ivan gets ill frequently*]

From the data in (31) we see that object-denoting nouns don’t allow for any kind of adverbial modification, or adverbial-related adjectives. However, nouns which denote results accept manner modification (31a: ii), or the adjective ‘frequent’ (31a: iv). These nouns do not denote events, rather, they denote the result obtained from some verbal action.⁵² The fact that they allow such modification may possibly be related to the fact that there is some implicit event denotation. Otherwise, without event (be it implicit or not), there is no result of such an event. Thus, we may provisionally suggest that this implicit event is what licenses manner modification in order to show the way in which the result has obtained. However, further investigation is required.⁵³

As for time (32) and manner (33) adverbials, all of the eventive nouns (the ‘other-suffix’ (32a, 33a), the –IE (32b, 33b) and the –NE (32c, 33c) nominals) allow such modification. An example is provided below:

⁵² These nouns can have either an object denotation (i) or a result one (ii):

(i) [RAZ-kaz]-ūt e na masa-ta (ii) spokojnijat [RAZ-kaz] na Ivan za životnite
story-the.MASC.SG is on table-the.FEM.SG the calm **narration/story** of Ivan about animals
‘The story is on the table’ ‘The calm narration of Ivan about the animals’

However, they do not denote events (iii) but simply the output of such events:

(iii) *[RAZ-kaz]-ūt stana v tri chasa
*The story/narration took place at three o’clock

⁵³ There are many other nouns which do accept manner modification: *bŭrz tants* ‘fast dance’; *spokoen lekarski [PRE-gled]* ‘calm medical check-up’, *spokoen govor* ‘calm speech’, *prodŭlžitelna zasada* ‘a long-lasting ambush’, *spokojna drjamka* ‘a calm doze/short sleep’, etc. Some of these nouns may be derived from verbal stems such as [PRE-gled] ‘check-up’, but others are not (*tants* ‘dance’, *govor* ‘speech’, etc.). We can also observe that many of them are derived from intransitive verbs (dance, speech, doze, etc.). However, at the present, I have no detailed analysis to offer for this phenomenon.

interpretation of their external argument as the Agent. Thus, only these nouns allow for agent-oriented adjectives to modify them.

Finally, in the next section I will show that there is an additional difference between the nominalization types in Bulgarian. This difference concerns telicity.

4.2.4. On telicity⁵⁴

As already mentioned, only the eventive –NE nominals denote processes. The rest of the nouns, though eventive, cannot have a true process reading. Additionally, it is only the –NE nouns that are always derived from the imperfective verbal base of the corresponding verb. An interesting question to ask is whether a nominalization can inherit the aspectual properties of its verbal base. The above facts suggest that it may really be the case. That is, the presence of the imperfective morpheme inside the –NE nominals may license their process interpretation.⁵⁵ Thus, it is the imperfective nature of the verbal base that gives rise to the process reading of such nouns which allows them to denote durative, or unbounded, events.

A way to test such a claim is to see whether the –NE nominals, which, in principle, denote processes, or unbounded events, have always an atelic interpretation. The most common diagnostics for testing telicity is the ‘in/for X time’ test. That is, if a verb (or a nominalization in this case) accepts a modifier such as ‘for X time’ (*v prodūlženie na*), then it is atelic. If, on the contrary, it accepts the ‘in X time’ (*za-NP*) modifier, it is telic.

⁵⁴ Telicity is a semantic property that reflects the boundedness of events. Verbs that denote bounded events are telic. Those that denote unbounded events are atelic. Due to the fact that telicity depends on event structure, i.e. a nominal should have some kind of event semantics, I would not consider object-denoting nominalizations here but only the eventive ones.

⁵⁵ In fact, Slavic languages differ in this respect. Schoorlemmer (1995) presents arguments for the claim that Russian complex event nominals don’t have aspect unlike Polish ones, which do. Popova (2006) claims that Bulgarian behaves like Russian in this respect as there is no aspect assignment to the nominalization in these languages.

From the examples in (36) we can see that in fact only the –NE nominals accept the atelic modifier *v prodĺženie na* ‘for X time’ (36a, b) whereas their corresponding eventive ‘other-suffix’ (36a’) and Voice –IE (36a’’) nominals don’t.

(36) **Testing telicity:**

-NE nominals:

(a) [NA-rush]-ava-ne-to na pravil-a-ta *v prodĺženie na* dűlg-o vreme
 (**za tri godini*) vodi do mnogo glob-i
 violate-ava.IMPF-NE-THE.NEUT.SG of rule-PL-the.PL *during* long-NEUT.SG time
 (**for three year-PL*) leads to many tax-PL

The violating of the rules for a long time (*in three years) leads to many taxes

(b) krad-e-ne-to na par-i ot majka mu *v prodĺženie na*
 (**za*) pet godin-i se razbra ot vsichki
 steal-e.TH.VOW-NE-THE.NEUT.SG of money-PL from mother his *during*
 (**in*) five year-PL se.REFL found out by everyone

The stealing of money from his mother *for* (**in*) five years was found out by everyone

‘Other-suffix’ nominals:

(a’) *kraž-ba-ta na par-i ot majka mu *v prodĺženie na* pet
 godin-i se razbra ot vsichki
 steal-BA-the.FEM.SG of money-PL from mother his *during* five
 year-PL se.REFL found out by everyone

*The stealth of money from his mother for five years was found out by everyone

Ivan's eating up of the breakfast in (*for) three hours surprised me

We can observe that the intransitive –NE nominal allows for both telic ('in X time') and atelic ('for X time') modifiers (37a). This was previously explained by the presence of the telic PP '*do Barselona*' (to Barcelona) together with the unergative nature of the verbal base which, when modified by this PP, becomes unaccusative (see chapter 3, section 3.3.2, ftns. 39, 40 for further comments).

Prefixed –NE nouns, on the other hand, reject the atelic modifier as they obligatorily require telic modification (37b). This may be due to the requirements imposed by the prefix. In Bulgarian, there are prefixes that bring about perfectivity (see §5.2.3). In doing so, they bind the event denoted by the verb. Thus, an atelic construction, when prefixed, becomes telic. This explains why prefixed –NE nominalizations reject the atelic modifier. Further examples supporting this claim are presented in (38) below:

(38) **Prefixed –NE nominals**

a. rush-e-ne-to na sgrada-ta *v prodūlženie na (*za)* tri chasa
destroy- e.TH.VOW-NE-THE.NEUT.SG of building-the.FEM.SG *during (*in)* three hours
The destroying of the building for (*in) three hours

a'. [s-rut]-va-ne-to na sgrada-ta *za (* v prodūlženie na)* tri chasa
[S.PF-destroy]-va.IMPF-NE-THE.NEUT.SG of building-the.FEM.SG *in (*during)* three hours
The pulling down of the building in (*for) three hours

From the examples above we see that whereas unprefixed –NE nominalizations (38a) allow only for the atelic 'for X time' modifier, when prefixed, the same nominalization (38a') not only allows for the telic 'in X time' modifier but even rejects the atelic one. This is due to the fact that these prefixes delimit the event denoted by the verb and thus make it bounded.

From the facts described above we may conclude that only –NE nominals (when unprefixes), systematically allow for atelic modification. This is due to the fact that they express a durative, unbounded event, which may further suggest that they may have inherited the aspectual properties of their verbal bases. That is, the hypothesis that they derive from imperfective verbal bases explains their durativity semantics. When prefixed, these nouns require the telic ‘*za-NP*’ (‘in X time’) because the event has become delimited via prefixation. Thus, though aspectual inheritance in the nominalizing process is present, we can further conclude that (a)telicity also depends on some properties of the lexical stem (absence vs. presence of perfectivizing prefixes). Another exception holds in cases of intransitive –NE nominals which allow both atelic and telic modifiers when a telic PP is inserted. The ‘other-suffix’ and the –IE nominals, on the other hand, don’t allow for atelic modification.

Recapitulating, we have seen that there are three types of nominals as far as argument structure is concerned. On one hand, we have true argument-taking –NE nouns (transitive and prefixed) which, in the same way as verbs, require their internal arguments obligatorily. These would correspond to Grimshaw’s (1990) *Complex Event nominals*. On the other hand, we have eventive participant-structure (‘other-suffix’, -IE, and –NE) nominals which allow for external and internal arguments to be present but this is only optional. Additionally, the external argument, when introduced, may have various interpretations and should not refer to the Agent exclusively. These would correspond to what Grimshaw (1990) labels as *Simple Event nominals*. Finally, there is another group of nouns, the object-denoting (‘other-suffix’, -IE, and –NE) nominalizations, which don’t denote events and cannot take internal arguments. Thus, they have no argument-structure but simply modifiers that may or may not restrict the denotation of the lexical item. These roughly correspond to Grimshaw’s (1990) *Result nominals*.

As for nominal modification, all of the nominalization types, in principle, accept Pluralization, Indefinites, Numerals, and Demonstratives. This may suggest

that eventivity doesn't play a role here. Rather, it is the syntactic category- a noun- that licenses such modification.

Adverbial modification, on the other hand, distinguishes between eventive and non-eventive nouns. Thus, pure object-denoting non-eventive nouns don't accept any adverbial modification. As for the rest of the nouns (the eventive participant-structure and the argument-structure –NE nouns), they allow manner and time modification and the adjective '*frequent*'. As for agent-oriented adverbials, only the argument-structure –NE nouns accept them which suggests that such modification, apart from eventive semantics, requires argument structure as well. An interesting case in this respect is the group of the result nouns which are ambiguous between object and result interpretation. These nouns don't denote events but can still combine with manner adverbials and the adjective '*frequent*'. A plausible explanation for this was suggested to be that such modifiers don't relate directly to the noun, i.e., the output of the event, but to the implicit event which has caused this output. However, more research is needed on this issue.

Finally, nominalizations behave differently as far as telicity is concerned. Whereas only the process –NE nominals systematically allow for atelic modifiers, the rest of the nouns do not. This may further support the hypothesis that the –NE nouns inherit the aspectual properties of the verb which in turn explains their durativity semantics. However, (a)telicity also depends on some properties of the lexical item (the presence or not of perfectivizing prefixes, the presence of telic PPs, etc.).

By now we have seen that prefixation plays an important role in the nominalizing process. Apart from rendering the roots as stems, it also intervenes in (a)telicity modification. Moreover, prefixation may also require the presence of the internal argument obligatorily (25c). Due to these facts, I devote the following chapter to the topic of prefixation.

CHAPTER 5 : THE ROLE OF PREFIXATION IN THE NOMINALIZING PROCESS

This chapter offers some details on the role of aspectual prefixation in the nominalizing process. Yet, this work is limited in scope. Thus, I would just briefly present the main lines of analysis as far as prefixes are concerned with emphasis on their syntactic rather than semantic representation.

The organization of this chapter is as follows. In section 5.1 I will briefly comment on the aspectual function of suffixation. The next sections then will offer details on aspectual prefixation (§ 5.2) together with a syntactic analysis of these prefixes (§ 5.3). Finally, some concluding remarks will close the chapter (§ 5.4).

5.1. The aspectual role of suffixation

Bulgarian is a language that has a rich aspectual morphology like the rest of the Slavic languages. Verbs form aspectual pairs in this language, perfective and imperfective.¹ That is, a single verbal meaning can be rendered by both forms.²

¹ Bulgarian has often been claimed to be the Slavic language with the most grammaticalized aspectual system (Comrie (1976), Ivanchev (1976), Maslov (1959)) displaying almost non-defective aspectual derivation. This is so because an imperfective form can be derived from virtually any perfective verb. That is, imperfectivization is considered a sign of productivity of the aspectual system. The rest of the Slavic languages, on the other hand, don't reveal such productivity. There are many '*perfectiva tantum*' verbs which have no imperfective counterparts in these languages. Additionally, many forms already bearing a perfective marker cannot be further imperfectivized. In this respect, Pashov (1999: 134) claims that ninety per cent of Bulgarian verbs form perfective-imperfective aspectual pairs.

² Bulgarian perfective verbs cannot be embedded under phrasal verbs (such as 'begin/finish/continue'); they are ungrammatical in main clauses in present and imperfect tense, and they cannot be complements of the verb '*uspeja*' (manage). Additionally, they don't form negative imperatives, active present participles, and, as we have already seen, -NE nominals. As for imperfectivity, Isratkova (2004) claims that there are no positive tests to identify it.

Both suffixes and prefixes have an aspectual function in Bulgarian (and in the rest of the Slavic languages). In this section I will discuss the role of suffixes.

In Bulgarian there are some verbs which are primary perfective³ or primary imperfective⁴. By ‘primary’ I mean that there are no morphological aspectual processes (prefixation or suffixation) involved in their derivation. That is, these verbs are not derived but are (im)perfective by default. From primary imperfective verbs we derive secondary perfectives via suffixation or prefixation. From primary perfectives, we derive secondary imperfectives via suffixation. First, let us consider the latter case.

Pashov (1999:134) claims that in the case of aspectual pairs, the imperfective verbal form is always obtained by the perfective one via aspectual suffixation.⁵ Suffixes that bring about imperfectivity are *-a-(m)*, *ja-(m)*, *-va-(m)*, *-ava-(m)*, *-java-(m)*, *-uva-(m)*.⁶ These suffixes are known as secondary imperfective. They are added to perfective verbs, both prefixed (derived) or primary, to make them imperfective. An example is provided below:

(1) *The secondary imperfective suffix*

a. *Attached to Primary Perfectives:*

- (i) kup-ja > kup-uva-m
 buy-ja.1PS.SG > kup-Ø.TH.VOW-uva.IMPf-m1PS.SG
 ‘buy’ (PF⁷) > ‘buy’ (IMPf)

³ Pashov (1999: 136) claims that in Bulgarian there are at about fifty primary perfective verbs which don’t contain neither a prefix nor the semelfactive perfectivizing suffix ‘n-’. Such verbs are ‘vidja’ (see), *dam* (give), *kupja* (buy), *rodja* (give birth), *skocha* (jump), *hvŭrlja* (throw), *chujja* (hear), *turja* (put), *reka* (say), among others.

⁴ The majority of the verbs which lack any aspectual suffix or prefix are considered imperfective (Pashov, 1999: 136). Such verbs are ‘nosja’ (carry), ‘cheta’ (read), ‘mija’ (washes), ‘jam’ (eat), among others.

⁵ There are also biaspectual verbs in Bulgarian. These are almost exclusively loan words. They may be used as both perfective and imperfective without changing their form. Such verbs usually contain the suffixes *-ira*, *-izira*: *oper-ira(m)* ‘operate’; *reag-ira(m)* ‘react’; *harakter-izira(m)* ‘characterise’, among others (see Pashov 1999: 138, for more details). I will not discuss them here.

⁶ The type of suffix depends on the conjugation of the verb (Pashov: 1999: 134).

⁷ IMPf is the abbreviation for ‘imperfective’ and PF for ‘perfective’.

(ii) skoch-a > skach-a-m
 jump-a. 1PS.SG > jump-Ø.TH.VOW-a.IMPF-m.1PS.SG
 ‘jump’ (PF) > ‘jump’ (IMPF)

(iii) rod-ja > ražd-a-m
 give birth-ja.1PS.SG > give birth-Ø.TH.VOW-a.IMPF-m.1PS.SG
 ‘give birth’ (PF) > ‘give birth’ (IMPF)

(b) *Attached to Derived Perfectives*⁸

(i) pish-a > [PRE-pish]-a > [PRE-pis]-va-m
 write- a.1PS.SG > [PRE-write]- a.1PS.SG > [PRE-write]-va.IMPF-m.1.PS.SG
 ‘write’ (IMPF) > ‘copy’ (PF) > copy (IMPF)

(ii) chet-a > [PRO-chet]-a > [PRO-chit]-a-m
 read-a.1PS.SG > [PRO-read]- a.1PS.SG > [PRO-read]-Ø.TH.VOW-a.IMPF-m.1.PS.SG
 ‘read’ (IMPF) > ‘read completely’ (PF) > ‘read completely’ (IMPF)

From the examples above we see that, for a perfective verb to become imperfective, the secondary imperfective suffix *-va* (or one of its allomorphs) is needed. In (1a: ii) we observe that there is a change in the root vowel. Following Svenonius (2004a), this may be accounted for by the regressive VV simplification rule (see fn. 15, chapter 4). Thus, we may suppose that the thematic vowel, when in contact with the imperfective morpheme (‘-a’ in this case), gets eliminated. Something similar happens in (1a: iii) where we have a consonant mutation.⁹

Perfective verbs, on the other hand, can be derived either by prefixation (which is the most usual case, cf. 1(b)), or by suffixation. The relevant perfectivizing suffix in this respect is the semalfactive morpheme ‘-n’ (abbreviated

⁸ By ‘derived’ perfectives I mean perfective verbs which are derived from imperfective ones via prefixation.

⁹ Isratkova (2004) also states that deriving (im)perfectivity often implies a change in the root vowel or/and consonant gradation (p. 301-302). On consonant mutation, see 4.1.

as ‘SEM’ here). It is used to derive a perfective verb from an imperfective one as in (2) below:

(2) *The semelfactive suffix:*

- | | | | |
|-----|------------------------|---|---------------------|
| (a) | dŭrp-a-m | > | drŭp-n-a |
| | pull-a.TH.VOW-m.1PS.SG | > | pull-n.SEM-a.TH.VOW |
| | ‘pull’ (IMPF) | | ‘pull’ (PF) |
| | | | |
| (b) | rev-a | > | rev-n-a |
| | cry-a.1PS.SG | > | cry-n.SEM-a.TH.VOW |
| | ‘cry’ (IMPF) | > | ‘raise a howl’ (PF) |

Apart from having a perfectivizing function, the semelfactive suffix adds a new meaning to the derived verb. Thus, the newly formed verbs indicate punctual events.¹⁰ In fact, prefixes have similar functions as well. From the examples in (1b: i, ii) we observe that apart from rendering perfectivity, prefixes modify the meaning of the derived verb. Thus, from ‘*pisha*’ (write) we get ‘PRE-*pisha*’ (copy), from ‘*cheta*’ (read) we get ‘PRO-*cheta*’ (read through). Due to the high complexity of this topic, I will present just the most general aspects of prefixation in Bulgarian in what follows.

5.2. The role of prefixation: some introductory notes

Slavic prefixes are notoriously heterogeneous. Traditionally, they are divided in two types, lexical and super-lexical.¹¹ However, following Svenonius

¹⁰ Svenonius (2004a) regards the semelfactive suffix (‘-n’, or ‘-nu’ in Russian) as a thematic vowel. Thus, he claims that ‘-n(u)’ stems are perfective. I will not further discuss this suffix due to the fact that it is not relevant for the proposals made in this work.

¹¹ The term ‘*super-lexical*’ was first used by Smith (1991) to refer to *Aktionsart*. Townsend (1975) uses the term ‘*sublexical*’ to refer to what is known as ‘super-lexical’.

(2004a), I will claim that there is a third group, the pure perfectivizing prefixes, that should be considered as a separate class as well.¹²

This section is organized as follows. I will first start discussing the lexical prefixes (§ 5.2.1) to proceed to offer a more general view on the super-lexical ones (§ 5.2.2). Finally, in section 5.2.3, I will present details on the pure perfectivizing prefixes.

5.2.1. Lexical prefixes

Lexical prefixes are considered to have an unstable meaning and to display a rich idiosyncrasy.¹³ An example is given below:

(3) *Lexical prefixes:*

- | | | | |
|-----|-----------------|-----|---------------|
| (a) | kaža > DO- kaža | (b) | dam > PRO-dam |
| | say > prove | | give > sell |

We can observe that lexical prefixes (3) derive a completely new verb (with a new meaning). This can further explain why lexical prefixes often change the argument structure of the verb. Consider the examples below:

- (4) (a) (i) kazvam neshto na njakoj
 say.1.PS.SG something to someone
 I say [something] [to someone]

¹² Babko-Malaya (1999), for example, claims that there are two classes of prefixes: lexical and super-lexical. For her, the first group, i.e, the lexical one, can be divided in pure perfectivizing prefixes and resultative ones (p. 50-51).

¹³ Lexical prefixes are compared to particles in other languages. Consider (i) below:

- (i) jam > IZ-jam
 eat > eat UP

Ramchand (2003), Ramchand and Svenonius (2002), among others, claim that lexical prefixes correspond to Germanic resultative particles.

(ii) *kazvam na njakoj che shte dojda*
say.1.PS.SG to someone that will come-1.PS.SG
I say [to someone] [that I will come]

(b) (i) *NA-kazvam njakoj za neshto*
[NA-say].1.PS.SG someone for something
[punish].1.PS.SG someone for something
I punish [someone] [for something]

(ii) **NA-kazvam neshto na njakoj*
[NA-say].1.PS.SG something to someone
[punish].1.PS.SG something to someone
*I punish [something] [to someone]

**[NA-kazvam] che shte dojda*
[NA-say].1.PS.SG that will come-1.PS.SG
[punish].1.PS.SG that will come-1.PS.SG
*I punish [that I will come]

From the data in (4) we see that whereas the unprefixes verb '*kazvam*' (say) can take either a direct object plus and indirect one (4a: i), or a CP complement (4a: ii), the lexically prefixed one rejects both (4b: ii). Rather, it requires only a direct object and a prepositional complement (4b: i).¹⁴

From the facts above we may conclude that instead of aspectual function, lexical prefixes have, rather, a lexical role thus rendering new lexical items.

¹⁴ In other languages, lexically-prefixed verbs have different case-assigning properties. Bulgarian, however, has lost nominal case distinctions.

5.2.2. Super-lexical prefixes

In contrast to the lexical prefixes, super-lexical prefixes are claimed to have a stable meaning like ‘begin’, ‘finish’, ‘do for a while’, etc. Consider the following examples:

(5) *Super-lexical prefixes:*

- | | | | |
|----------|----------------------|-------------|-------------------|
| (a) peja | > PO-peja | (b) obicham | > ZA-obicham |
| ‘sing’ | > ‘sing FOR A WHILE’ | ‘love’ | > ‘START TO love’ |

From (5) we can observe that super-lexical prefixes behave differently with respect to the lexical ones. Thus, instead of completely changing the meaning of the super-lexically prefixed verb, super-lexical prefixes just modify it. They are also claimed to correspond to aspectual words or adverbial phrases in English and other languages (cf. Babko-Malaya (1999: 76)).¹⁵ Additionally, super-lexical prefixes do not change the argument-taking properties of the verb they attach to.

In fact, prefixes with the same phonological content may be either lexical (6a) or super-lexical (6b):¹⁶

(6) a. *Lexical prefixes*

- | | |
|----------|----------------------------|
| (i) kaža | > IZ- kaža / RAZ-kaža |
| ‘say’ | > ‘express’ / ‘narrate’ |
| (ii) dam | > IZ-dam / RAZ-dam |
| ‘give’ | > ‘publish’ / ‘distribute’ |

¹⁵ In this respect, Babko-Malaya (1999: 76-77) claims that super-lexical prefixes are modifiers of verbal phrases or whole sentences whereas the lexical ones modify the meaning of the verb.

¹⁶ Examples taken from Isratkova (2004: 307).

(b) *Super-lexical prefixes:*

(i) IZ-[RAZ-kaža]¹⁷

COMPLETELY- [RAZ-say]

COMPLETELY- [narrate] ('narrate completely')

(ii) IZ-[RAZ-dam]

COMPLETELY-[RAZ-give]

COMPLETELY-[distribute] ('distribute completely')

(iii) RAZ-[PRO-dam]

IN EXCESS-[PRO-give]

IN EXCESS-[sell] ('sell in excess/excessively')

In (6a) IZ- and RAZ- are lexical prefixes whereas they are super-lexical in (6b). It is considered that when inner to the verb, prefixes tend to be interpreted as lexical whereas when outer, they are super-lexical. In (6b), for example, the inner RAZ- (6b:i, ii) and PRO- (6b:iii) are lexical prefixes in that they change the meaning of the verb completely. The outer IZ- (6b: i, ii) and RAZ- (6b: iii) are super-lexical translated usually by an adverbial ('*completely, excessively*'). In fact, super-lexical prefixes are traditionally considered to attach outside lexical ones.¹⁸

Isratkova (2004) provides the following inherent meanings of super-lexical prefixes in Bulgarian:¹⁹

(7) *Inherent meanings of super-lexical prefixes in Bulgarian:*

(a) PRE- 'to do again' [PRE-kupja 'buy *again*']

(b) RAZ- 'to do in excess, to the very end, in many directions'

¹⁷ Hence, I will use square brackets for lexical prefixes whereas no brackets for super-lexical ones.

¹⁸ Cf. Svenonius (2004a, b, c), Isratkova (2004), among many others. Yet, it should also be clear that super-lexical prefixes may sometimes be attached directly to the verbal stem (cf. *peja* 'sing' > ZA-*peja* 'start to sing').

¹⁹ Examples taken from Isratkova (2004: 312).

[RAZ-prodam ‘sell *excessively*]

- (c) NA- ‘cumulative’ (requires a plural or mass nominal argument)
[NA-prodam ‘sell *a lot*’]
- (d) PO-: three types:
(i) distributive over subjects and objects ‘little by little’
[PO-NA-prodam ‘sell many things *little by little*’]
(ii) delimitative ‘for a while’ [PO-peja ‘sing *for a while*’]
(iii) attenuative ‘do with low intensity’ [PO-prodam ‘sell *a little bit*’]
- (e) ZA- ‘to begin’ [ZA-peja ‘*start to* sing’]
- (f) DO- ‘to finish’ [DO-peja ‘*finish* singing’]
- (g) IZ- ‘to do completely’ [IZ-RAZ-prodam ‘sell *completely* in excess’]

As for the super-lexical prefix PO-, I follow Součková (2004) and thus consider that there is only one PO-. Součková (2004) claims that Czech PO- is an extensive measure function. Sometimes it quantifies over times (‘for a short time’), sometimes over distances (‘for a short distance’), and sometimes over intensity (‘to a low degree, a little bit’). The author argues that in each case the same PO- is involved with a constant meaning.

Thus, we can observe that super-lexical prefixes, in contrast to the lexical ones, have an adverbial-like function but not a lexical one.

5.2.3 Pure perfectivizing prefixes

As already mentioned, there is a third group of prefixes with a pure perfectivizing role. These prefixes render an imperfective verb perfective with no change of meaning.²⁰ Thus, their function is to indicate that the process denoted by the verb is completed (Babko-Malaya (1999: 51)). Additionally, in the same way as super-lexical prefixes, and contrary to the lexical ones, the pure

²⁰ Svenonius (2004a) claims that such perfectivized forms strongly resist secondary imperfective in most cases. He explains this by the notion of blocking. If the secondary imperfective would mean the same as the unprefixed stem, then the simpler form might block the more complex one. However, he recognises that such an intuition is not yet fully worked out.

perfectivizing prefixes do not change the selectional restrictions of the verb. An example is given in (8):

(8) Pure Perfectivizing Prefixes:

- | | |
|---|--|
| <p>(a) jam > IZ-jam
eat > IZ.PF-eat
eat (IMPF) > eat up/completely (PF)</p> | <p>(b) melja > s-milam
grind > S. PF-grind
grind (IMPF) > grind up/completely (PF)</p> |
| <p>(c) pisha > na-pisha
write > NA. PF-write
write (IMPF) > write down (PF)</p> | |

We have previously seen that these prefixes also intervene in (a)telicity modification. Thus, a –NE nominal, when prefixed, allows for telic modification (cf. 37b, 38a’, chapter 4). This could be explained by the perfectivizing nature of such prefixes. That is, once attached to the verb, they show that the process denoted by this verb is completed. Hence, telic modification is licensed.²¹

Moreover, these prefixes can also require the presence of the internal argument obligatorily (cf. 25c, chapter 4). More details on this will be provided in section 5.3.2.

Having shown the basic assumptions on aspectual morphology in Bulgarian, I dedicate the next section to my syntactic analysis of prefixation in this language.

5.3. The syntax of prefixation and its role in nominalizing process

In this section I will offer a syntactic analysis of the three types of prefixes examined in the previous section (§ 5.2). I will claim that both perfectivizing and super-lexical prefixes are syntactically derived and occupy head positions. As for

²¹ However, it should not be misinterpreted that there is a systematic correlation between Slavic prefixes and telicity of verbs (cf. Filip (2005) for more details on this claim).

the lexical ones, they are lexically derived as part of the verbal stem because they form new lexical items. I will first start discussing the lexical prefixes.

5.3.1. The syntax of lexical prefixes

As we have seen in the previous section, lexical prefixes render new meanings. This suggests that lexically prefixed verbs should be listed as separate items in the Lexicon. Additionally, they also change the argument-taking properties of the verb (cf. (4) above).

Due to these facts, I propose that lexical prefixes be inserted pre-syntactically, i.e. as part of the root.²² Additional evidence for such a claim is found by the nominalizing process. In fact, all nominalizations can be formed on lexically prefixed verbs:

²² Babko-Malaya (1999) suggests that lexical prefixes be adjoined to a lexical head pre-syntactically. Ramchand (2003) derives prefixes as heads of Resultative phrase (RP). The RP is, in turn, a complement of V' (see Svenonius 2004c: 312, for more details). Svenonius (2004c) gives a similar proposal. He suggests that lexical prefixes be analyzed as small clause predicates assuming a R(esult) head below V as in (i) below (taken from Svenoniu (2004c: 206)):

(i)	VP		Helder ZA-brosil mjač v vorota angličan
			Helder INTO-throw ball in goal English
	V	RP	Helder kicked the ball into the English goal
	throw		
	DP	R'	
	ball		
	R	PP	
	into	in goal	

Yet, there is no need to derive lexical prefixes as R heads. First of all, not all lexical prefixes have a resultative semantics (cf. *kazvam* 'say' vs. [DO-*kazvam*] 'prove' vs. [PO-*kazvam*] 'show', vs. [NA-*kazvam*] 'punish' vs. [PRI-*kazvam*] 'talk', vs. [RAZ-*kazvam*] 'narrate' etc). Acquisition gives us further support for the claim that lexically prefixed verbs should be Lexical items, and not syntactically derived. My conjecture is that a child acquiring a language is not conscious of the fact that [DO-*kazvam*] 'prove' derives from *kazvam* 'say' via lexical prefixation. Rather, s/he learns the new lexical item [DO-*kazvam*] 'prove' independently and not necessarily having previously acquired *kazvam* 'say'. I cannot support this conjecture with independent data on acquisition, but it seems to me a logical assumption. Moreover, lexically-prefixed verbs correspond to new lexical items in other languages (*kazvam* 'say', *do-kazvam* 'prove', *pri-kazvam* 'talk', etc). Thus, we have no reason to derive such items syntactically. Additional evidence is found in cases where we have two (or more) lexical prefixes attached to the root which again suggests that they cannot be derived syntactically (see fn. 29).

(9) *Lexical prefixes inside nominalizations:*

(a) Gender-derived nominalizations

[RAZ-kaz]-ūt za detsa
[RAZ-say]-the.MASC.SG for children
[narrate]-the.MASC.SG for children
‘the story/narration for children’

(b) Other-suffix nominals

[PRO-d]-a-žba-ta na diamant-i
[PRO-give]-a.TH.VOW-ŽBA-the.FEM.SG of diamond-PL
[sell]- a.TH.VOW-ŽBA-the.FEM.SG of diamond-PL
‘the sale of diamonds’

(c) Voice –IE nominals

[NA-kaz]-a-n-ie-to na Ivan
[NA-say]-a.TH.VOW-N.PASS.PRT-IE-the.NEUT.SG of Ivan
[punish]-a.TH.VOW-N.PASS.PRT-IE-the.NEUT.SG of Ivan
‘the punishment of Ivan’

(d) –NE nominals

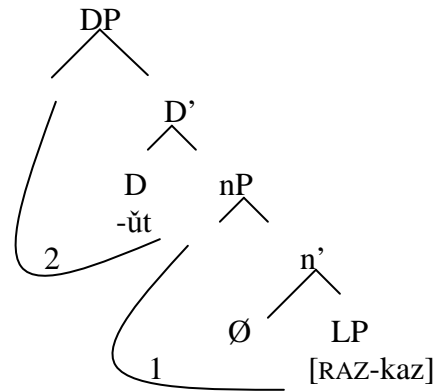
[RAZ-kaz]-va-ne-to *(na vits-ove)
[RAZ-say]-va.IMPf-NE-the.NEUT.SG of joke-PL
[tell/narrate]-IMPf-NE-the.NEUT.SG of joke-PL
‘The telling of jokes’

A syntactic analysis for the lexical prefixes in (9) is provided in (10) below:

(10) *The syntax of lexical prefixes inside nominalizations:*

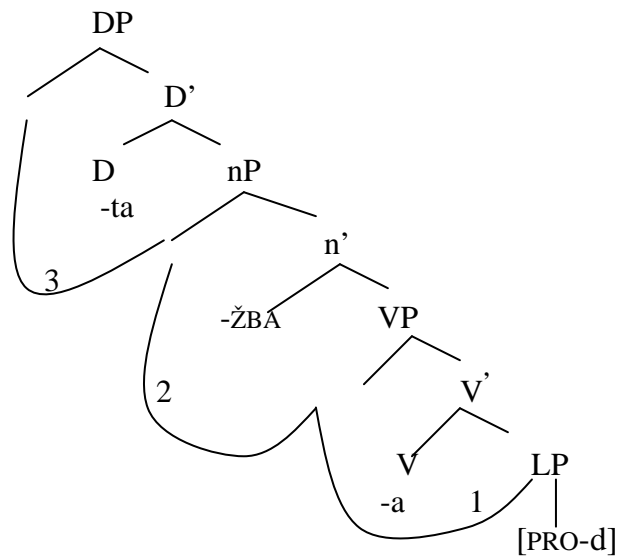
(a) Gender-derived nominalizations (cf. 9a)

[RAZ-kaz]-ūt ‘the story/narration’



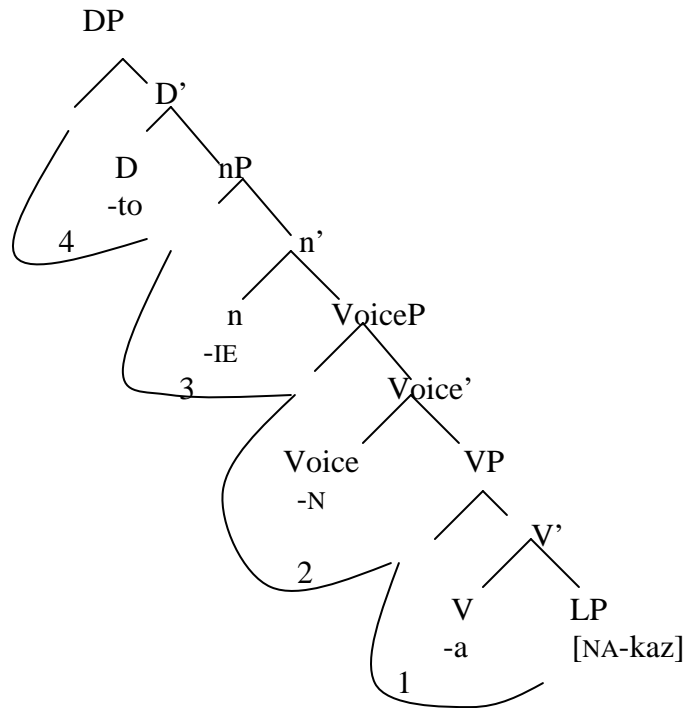
(b) ‘Other-suffix’ nominals (cf. 9b)

[PRO-d]-a-žba-ta ‘the sale’



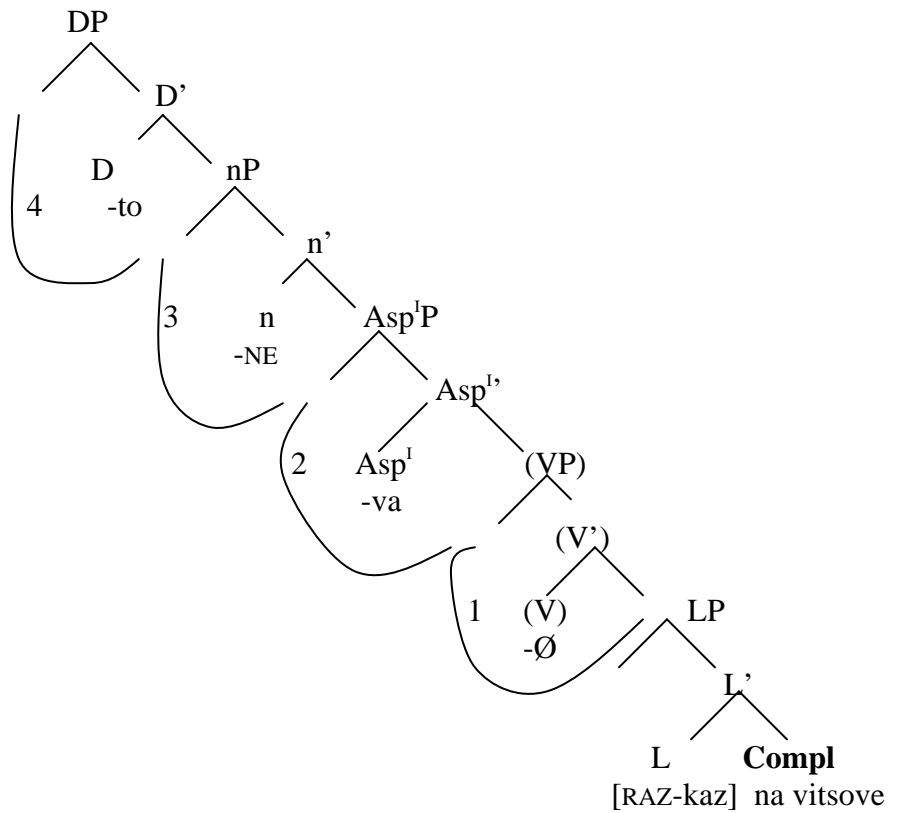
(c) Voice –IE nominals (cf. 9c)

[NA-kaz]-a-n-ie-to ‘the punishment’



(d) –NE nominals (cf. 9d)

[RAZ-kaz]-va-ne-to na vitsove ‘the narrating of jokes’



From (10) we see that lexical prefixes derive as part of LP. Remember that lexical prefixes signal the presence of a stem and not simply a root (see ftns. 9, 10, chapter 4). Thus, in the derivations in (10) we have a stem insertion (i.e, LP).

In the case of –NE nominals, we saw that when transitive, such nominalizations may sometimes require their internal arguments obligatorily (Cf. 9d). In this case, the internal arguments are projected as Complements of L' (cf. 10d).

5.3.2. The syntax of pure perfectivizing prefixes

We have already seen that the pure perfectivizing prefixes make the presence of the internal argument obligatory (cf. 25c, chapter 4). If we prefix a nominalization which can optionally appear with its internal argument, then the internal argument becomes obligatory.²³ Additionally, these prefixes are also capable of rendering an atelic structure telic (37b, 38a', chapter 4).

However, as already mentioned, perfectivizing prefixes only make an imperfective verb perfective without any change of meaning. Thus, they should not be treated in the same way as lexical prefixes. That's why we cannot claim that they are derived pre-syntactically. Additionally, they have an aspectual function and not a lexical one. As for their derivation, I follow Borer (2002) and propose that such prefixes be derived syntactically as heads of Asp_QP (Aspect Quantity Phrase).²⁴ The reason for adopting this functional projection is that such

²³ Babko-Malaya (1999: 63) claims that the same holds for Russian. She says that imperfective unprefixated verbs in Russian usually have optional arguments. However, when a perfectivizing prefix is attached, the object becomes obligatory. In fact, Babko-Malaya states that all accomplishment verbs take internal arguments obligatorily. However, due to the scope of this work, I would not make any comments on this claim for the present time.

²⁴ For Borer (2002) the definition of Quantity is the following:

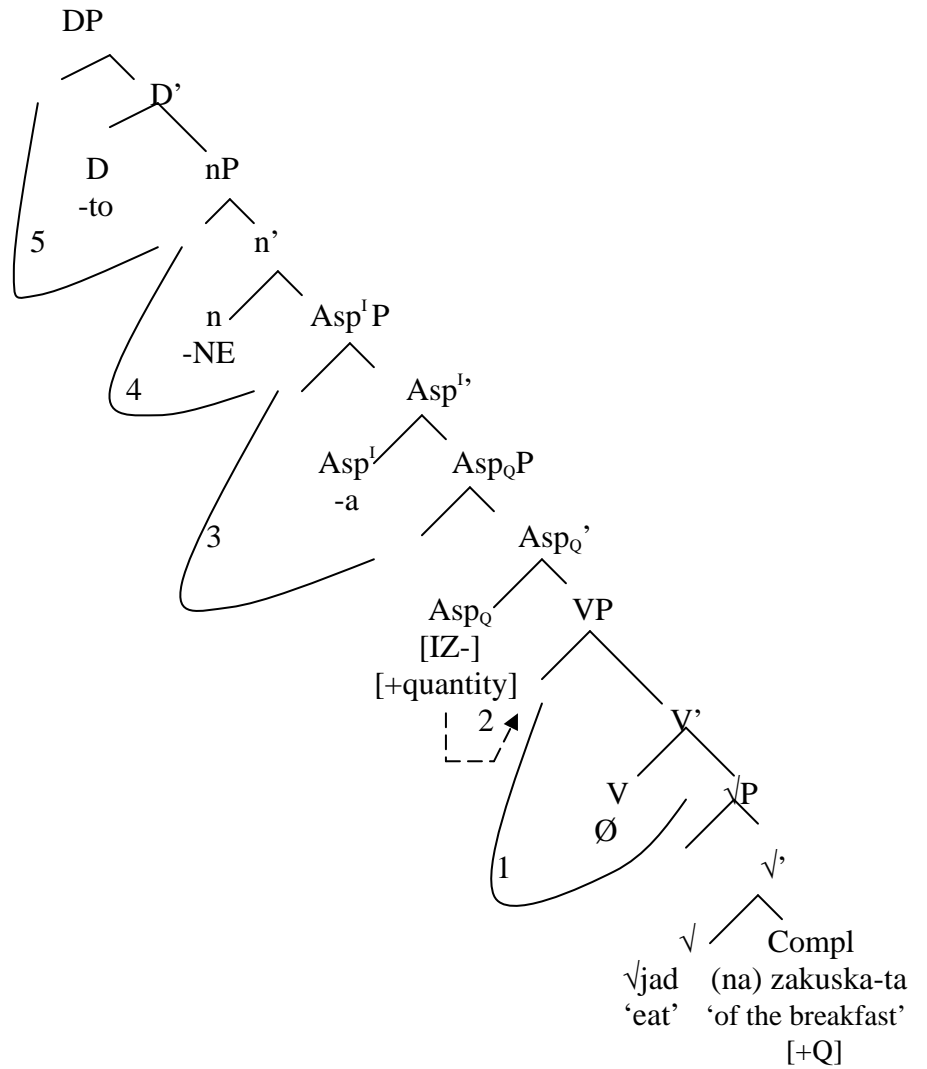
(i) *Quantity*:

- (a) P is quantity if P is not homogeneous
- (b) P is homogeneous iff P is cumulative and divisive

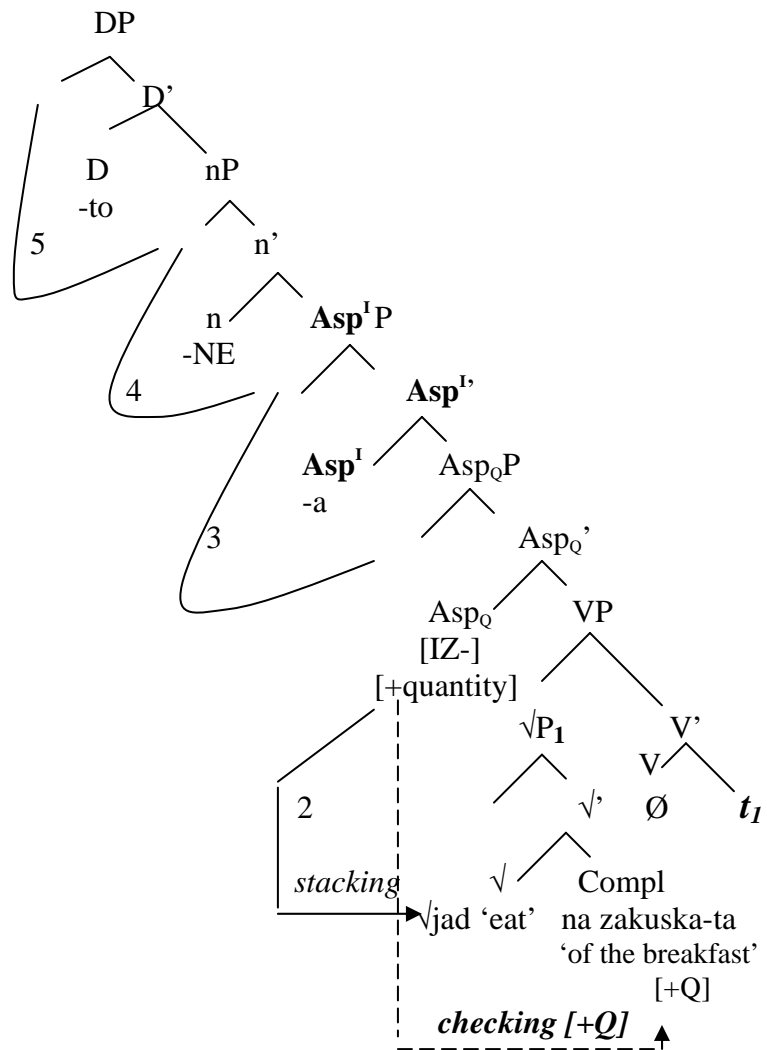
She considers articles, possessive pronouns, numerals, and certain quantifiers as quantity expressions. For more information, see Borer (2002). In more general terms, quantity interpretation corresponds to Kiparsky's (1998) notion of boundedness. For critical comments on Borer's (2002) proposal, see Filip (2005).

(12) **The syntax of quantificational prefixes** (cf. 11b):

IZ-jažd-a-ne-to na zakuska-ta ‘the eating up of the breakfast’



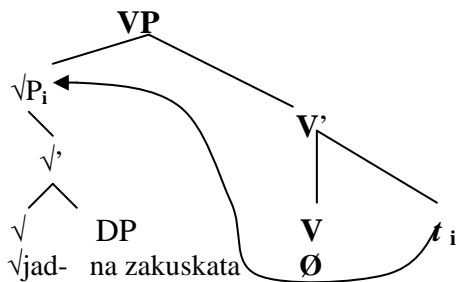
b. Checking [+Q] in Spec, VP



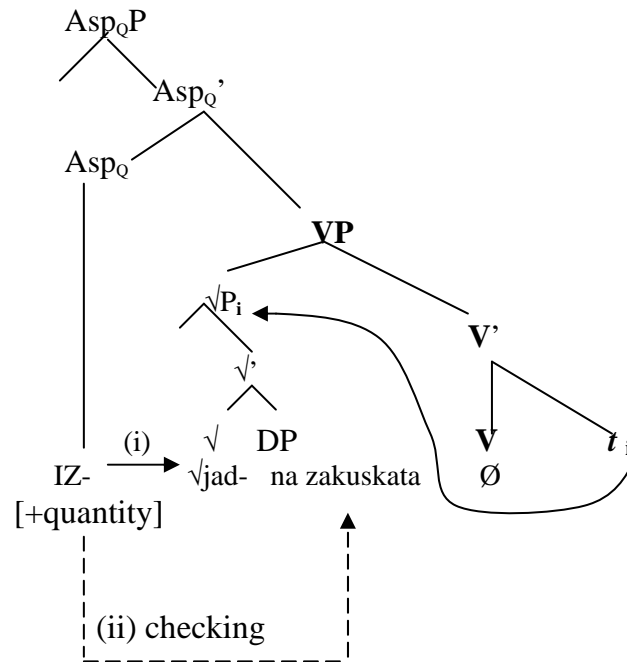
c. Step-by-step movement operations involved:

IZ-jažd-a-ne-to na zkuska-ta 'the eating up of the breakfast'

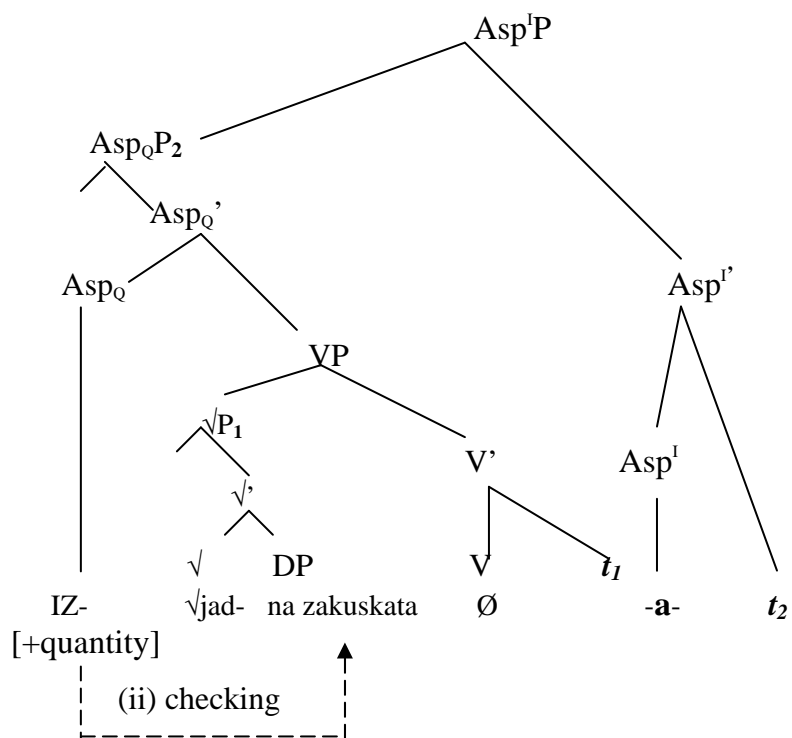
1. [_{VP} √jad-] Verbalization: ROOT MERGING WITH V IN [SPEC, VP]



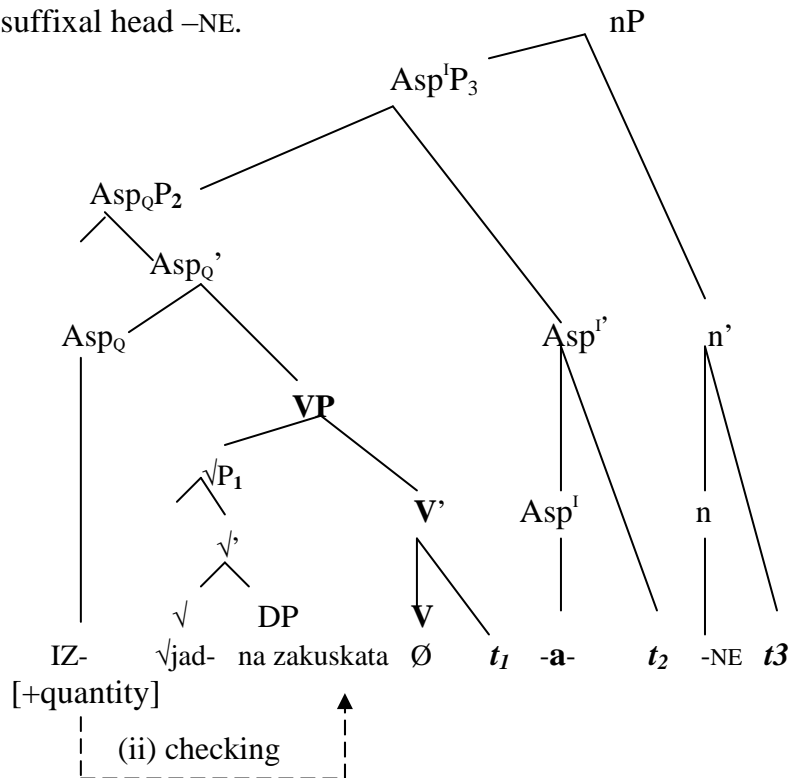
2. (i): Quantificational stacking (Asp_Q (IZ-) stacks to [VP, \sqrt{P}] in Spec,VP)
- (ii): Feature checking/sharing and Agreement: [IZ-] checks the [+quantity] feature of the DP complement in Spec,VP (only in case the internal argument is incrementally related to the verb).



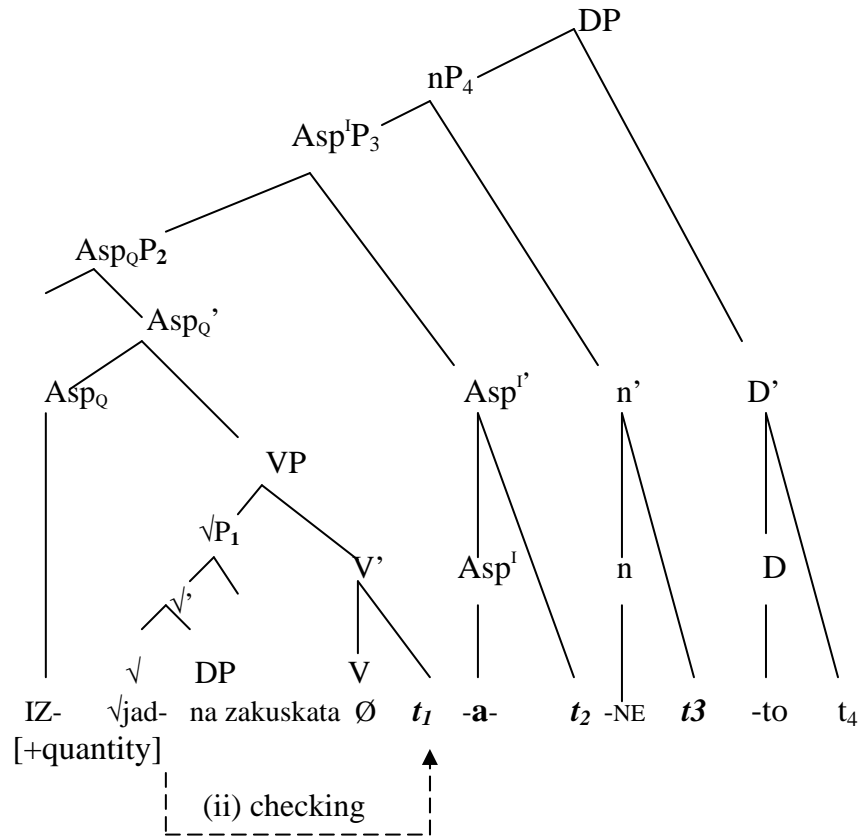
3. Secondary imperfectivization (the complex [Asp_QP, VP, √P] moves to Spec, Asp^IP to attach the secondary imperfective suffix *-a*, an Asp^I head)



4. Nominalizing: [Asp^IP, Asp_QP, VP, √P] moves to Spec, nP and attaches the nominalizing suffixal head *-NE*.



5. Attaching the definite article: [nP, Asp^lP, Asp_QP, VP, √P] moves to Spec,DP.



From the derivation in (12) we see that the theme argument is derived as Complement of $\sqrt{}$.²⁶ The root phrase \sqrt{P} then moves to Spec, VP to get verbalized there (12c: 1). Evidence for verbalization is found by the consonant mutation in the derived noun (i.e. the root is *jad* ‘eat’ whereas the nominalization is *iz-jažd-a-ne* ‘eating up’). Once verbalized, the perfectivizing prefix [IZ-] attaches directly to the structure [VP, \sqrt{P}] in Spec,VP without further movement (12c: 2(i)). That is, prefixation, and hence perfectivization, takes place in situ (in Spec,VP) without

²⁶ In this respect, my analysis differs from Borer’s (2002) one. Whereas Borer (2002) derives the complement DP in Spec,Asp_QP, I derive it as Complement of $\sqrt{}/L$. This is due to the fact that there is not a systematic ‘quantificational’ agreement between the prefixed verb and its internal argument as erroneously claimed by Borer (see fn. 25). As we saw, Filip (2005) claims that such an agreement relation obtains only in case the internal argument is the Incremental Theme argument of the verb (cf. fn. 25). Thus, if, following Borer (2002), we derive the internal argument in Spec,Asp_QP, this would wrongly predict that any internal argument of quantificationally prefixed verbs will always agree with these verbs in ‘quantity’ through Spec-Head agreement (see Filip (2005) for further critical comments on this assumption).

any movement.²⁷ Once this happens, an agreement operation takes place (12c: 2(ii)). Thus, the quantity marked prefix [IZ-] checks the quantity specification of the Theme argument ‘*the apples*’ (recall that such an operation is available for Incremental theme arguments only). Once feature agreement between the prefix and the theme argument takes place, the prefixed structure [IZ-, VP, \sqrt{P}] then further moves to Spec,Asp^IP so that the imperfective suffix *-a*, an Asp^I head, could appear on its right (12c: 3). Then, the whole complex [Asp^IP, Asp_QP, VP, \sqrt{P}] moves to Spec,nP where the suffix *-NE* nominalizes the structure (12c: 4). Finally, the definite article, a suffix as well, is attached by moving the newly formed nominal [nP, Asp^IP, Asp_QP, VP, \sqrt{P}] to Spec,DP (12c: 5). Again, we have an instantiation of Spec to Spec XP movement only. As for the possibility of the complement DP ‘*na zakuskata*’ (of the breakfast) to intervene during the derivation, we again adopt the theory of Phases (Chomsky 2001) and claim that such a complement, being a phase, is invisible for any morphosyntactic operations during the nominalizing process. Thus, the ungrammatical sequence **IZ-jažd-na zakuskata-Ø-a-NE-to* (literally ‘IZ-eat-of the breakfast-Ø-a-ING-the’) is completely ruled out.

As for the derivation of the Asp_QP projection, it should be derived below the Asp^IP which hosts the secondary imperfective suffix. There are several reasons to follow this path of reasoning. Consider the examples below:

- (13) (a) (i) jam > (ii) iz-jam > (iii) iz-jažd-a-m
eat > IZ.PF-eat > IZ.PF-eat-a.IMPF-m.1PS.SG
‘eat’ > ‘eat up’ (PF) > ‘eat up’ (IMPF)
- (b) (i) pisha > (ii) na-pisha > (iii) na-pis-va-m
write > NA.PF-write > NA.PF-write-va.IMPF-m.1PS.SG
‘write’ > ‘write down’ (PF) > ‘write down’ (IMPF)

²⁷ Such a claim may at first sight appear contra Kayne’s (1994) assumption that right movement is syntactically impossible. However, here there is no movement operation involved. Rather, the prefix [IZ-] and the verbalized complex [VP, \sqrt{P}] stack together in situ.

From (13) we see that quantificational prefixes attach to primary imperfective verbs (i) and thus make them perfective (ii). Then, the newly formed perfective verbs (ii) can be further made imperfective via secondary imperfective suffixation (iii). This would suggest that the secondary imperfective morpheme derives higher up in the structure. This explains the fact that it scopes over the perfective quantificational prefix thus rendering imperfectivity. That is why the Asp_QP should be derived below Asp¹P.

To recapitulate, we have seen that lexical prefixes should enter the derivation as part of the verbal stem, directly under LP (10). This explains why lexically prefixed verbs have different lexical meanings and argument structure compared to the unprefixed verb they apparently derive from. Their internal arguments (in case of the –NE nominals), when obligatory, are derived as complements of L' (cf. 10d).

As for purely perfectivizing prefixes, they should be analysed as heads of Borer's (2002) Asp_QP. The reason for this is that such prefixes not only require the presence of their internal arguments obligatorily, but, in many cases, they also impose further restrictions on these arguments. As we have seen, such arguments should be quantities, i.e, quantificationally marked (in case they are incrementally related to the verb).

Having discussed the basic assumptions on lexical and perfectivizing (quantificational) prefixes, I will now proceed to discuss my analysis of super-lexical prefixes.

5.3.3. The syntax of super-lexical prefixes

We have previously seen that super-lexical prefixes don't change the meaning of the verb (nominalization) they attach to (cf. 5, 6b). Rather, they modify it in a similar way as adverbials do. We have evidence to claim that such prefixes are indeed related to adverbials. In (7) we saw that the inherent semantics

of super-lexical prefixes are adverbial in nature. Additionally, Isratkova (2004) claims that these prefixes appear in a fixed order in case of stacking, behaving thus in a similar way as adverbials which are also hierarchically ordered.

Stacking is a common phenomenon in the Slavic languages where two or more prefixes attach to a single verbal stem. Thus, Russian permits for two (and very rarely for three) prefixes to be attached to a verb whereas in Bulgarian up to seven prefixes can stack on it.²⁸ Following Babko-Malaya (1999) line of thought, Isratkova (2004) shows that in Bulgarian, whenever more than two prefixes stack on a single verbal stem, only the innermost is lexical whereas the rest are super-lexical (Isratkova, 2004: 306).²⁹ As for the hierarchy in which these prefixes are ordered, I provide an example in (14):

(14) *The hierarchy of super-lexical prefixes* (Isratkova 2004: 318):³⁰

attenuative PO- > ZA- > DO- > IZ- > distributive PO- > NA- > RAZ- > PRE-
> semelfactive suffix –N > lexical prefix > VP

In order to syntactically derive super-lexical prefixes in Bulgarian, I follow Cinque's (1999) hierarchy of aspectual features. Assuming that Adverbs don't

²⁸ Combinations of more than four prefixes are infrequent.

²⁹ Though this is a common assumption among linguists working in this field, I believe that this is not always the case. In fact, at least in Bulgarian, we have instances where there are two or more lexical prefixes stacking on a verbal stem. Consider the data below:

(i) pred-raz-po-√lag-a-m	(ii) raz-pro-stran-java-m
PRED-RAZ-[PO-√lag]-a.IMPF-m.1PS.SG	RAZ-[PRO-avoid]-java.IMPF-m.1PS.SG
PRED-[RAZ-[PUT]]-a.IMPF-m.1PS.SG	[RAZ-[*PRO-avoid]]-java.IMPF-m.1PS.SG
[PRED-[DISPOSE]-a.IMPF-m.1PS.SG	'I spread'
'I pre-dispose'	

From (i) we see that the cranberry roots (i.e, a root which cannot exist on its own) [√lag] undergoes lexical prefixation by three lexical prefixes which occur in a fixed order. All of the prefixes give a new lexical meaning to the item they attach to. Example (ii), on the other hand, shows that the lexical prefix [PRO-] cannot combine with the stem [*stranja* 'avoid'] on its own as it doesn't ascribe a meaning to it. In fact, it needs the second lexical prefix [RAZ-] so that meaning be ascribed to the verbal stem. There are, in fact, many cases where a lexical prefix needs the additional presence of another lexical prefix in order to ascribe a new meaning to the verb. This suggests that such prefixes should be indeed part of the stem and not syntactically derived as proposed by Svenonius (2004c) among many others (see fn. 22).

³⁰ For more details on combinational restrictions of super-lexical prefixes in Bulgarian, see Isratkova (2004: 312-316).

move in syntax (apart from wh-movement and focalization cases), Cinque (1999) concludes that they are ordered along a fixed hierarchy of functional projections as in (15):

(15) *Cinque's (1999) hierarchy of aspectual features* (cf. Cinque 2002: 47):

- MoodP_{speech act}
- > MoodP_{evaluative}
- > MoodP_{evidential}
- > ModP_{epistemic}
- > TP_{Past}
- > TP_{Future}
- > MoodP_{irrealis}
- > TP_{anterior}
- > ModP_{alethic}
- > AspP_{habitual}
- > AspP_{repetitive(I)}
- > AspP_{frequentative(I)}
- > ModP_{volition}
- > AspP_{celerative(I)}
- > **AspP**_{terminative} (no longer) [DO- 'finish']
- > AspP_{continuative}
- > **AspP**_{perfect}
- > AspP_{retrospective}
- > AspP_{proximative}
- > AspP_{durative}
- > AspP_{progressive}

- > AspP_{prospective}
- > **AspP**_{inceptive(I)} [ZA- ‘begin’]
- > ModP_{obligation}
- > ModP_{ability}
- > AspP_{frustrative/success}
- > ModP_{permission}
- > AspP_{conative}
- > **AspP**_{completive(I)} [IZ- ‘completely’]
- > **Aspect Pl completive** (tutto) [NA- ‘in excess’]
- > **VoiceP** —————→ **past passive participial suffix –N/-T (-IE nouns)**
- > **AspP**_{repetitive(II)} [PRE- ‘again’?]
- > AspP_{frequentative(II)}
- > AspP_{celerative(II)}
- > **AspP**_{inceptive(II)} [ZA- ‘begin’]
- > **AspP**_{completive(II)} —————→ [**Asp_QP**]
- > **V**

I adopt the hierarchy in (15) because it presents the full spectrum of possible aspectual features. Additionally, and more important for the proposals made here, it also includes a position for the Voice features. According to Cinque (1999), all past participles of active and passive verbs initially generate under VoiceP. This would mean that the past passive participial morpheme –N/-T heads this projection. Evidence for such a claim is found from the (un)availability of certain super-lexical prefixes within some nominalizations.

In (16) we see that whereas the –NE nominals accept any kind of super-lexical prefixes (16a, a’), the rest of the nominalizations cannot. The –IE nominals almost never allow for any super-lexical prefix (16b, b’) whereas the eventive

(c) **‘Other-suffix’ nominals:**

PRE-RAZ-[PRO-d]-a-žba-ta na tursk-i stok-i
PRE-RAZ-[PRO-give]-a.TH.VOW- ŽBA-the.FEM.SG of Turkish-PL goods-PL
AGAIN-IN EXCESS-[sell]-a.TH.VOW-ŽBA-the.FEM.SG of Turkish-PL goods-PL
‘The sale again in excess of Turkish goods’

(c’) *IZ-[PRO-d]-a-žba-ta na tursk-i stok-i
IZ-[PRO-give]-a.TH.VOW-ŽBA-the.FEM.SG of Turkish-PL goods-PL
COMPLETELY-[sell]-a.TH.VOW-ŽBA-the.FEM.SG of Turkish-PL goods-PL
*‘The sale completely of Turkish goods’

The data in (16) shows that whereas the –NE nominals accept any kind of super-lexical prefixes (16a, a’), the –IE ones accept only the prefix PRE- (16b) and the ‘other-suffix’ ones the prefixes PRE- and RAZ- (16c). Adopting the hierarchy in (15), an explanation comes at hand easily.

In my analysis, nominalizers should, in principle, be able to attach above any aspectual projection from the Cinque’s (1999) hierarchy. However, once nominalized, aspectual prefixation is not allowed inside the nominal any more.

When we derive a Voice –IE nominal, the nominalizer –IE always attaches directly to the VoiceP projection hosting the past passive participial suffix –N/-T. Once nominalized, there is no further prefixation. This would suggest that aspectual projections above VoiceP would be incompatible with such nominals. Thus, such nouns would allow only for lower super-lexical prefixes such as the repetitive PRE- (16b).

As for the –NE nominals, they accept any prefix because there is nothing in their derivation until they attach to the nominalizer -NE to block it. That is, there is no intermediate position such as VoiceP to which the nominalizer projection nP attaches to block further prefixation from above. In fact, the same should hold for the eventive ‘other-suffix’ nouns which, like the –NE nouns, should, in principle,

allow for higher aspectual projections inside them. However, as we see from (16c), they can accept the prefixes PRE- and RAZ- only. For the time being, I have no plausible explanation to account for this fact. Yet, we may arguably consider that it may be some semantic feature that accounts for the presence of such prefixes and the absence of the rest. As for the eventive –IE nouns, it is their syntactic derivation (the participial suffix –N/-T derived under VoiceP to which the nominalizing head –IE attaches directly) that blocks higher prefixes to appear inside them.

As for the way I label the projections hosted by super-lexical prefixes, I follow Svenonius (2004a: 195):

(17) **Labels for aspectual projections headed by super-lexical prefixes:**

<i>Label</i>	<i>Gloss</i>	<i>Prefix</i>
(i) Inceptive	INCP	ZA-
(ii) Terminative	TRMN	DO-
(iii) Completive	CMPL	IZ-
(iv) Delimitative	DLMT	PO-
(v) Attenuative	ATTN	PO-
(vi) Distributive	DSTR	PO-
(vii) Cumulative	CMLT	NA-
(viii) Repetitive	RPET	PRE-
(ix) Excessive	EXCS	RAZ-

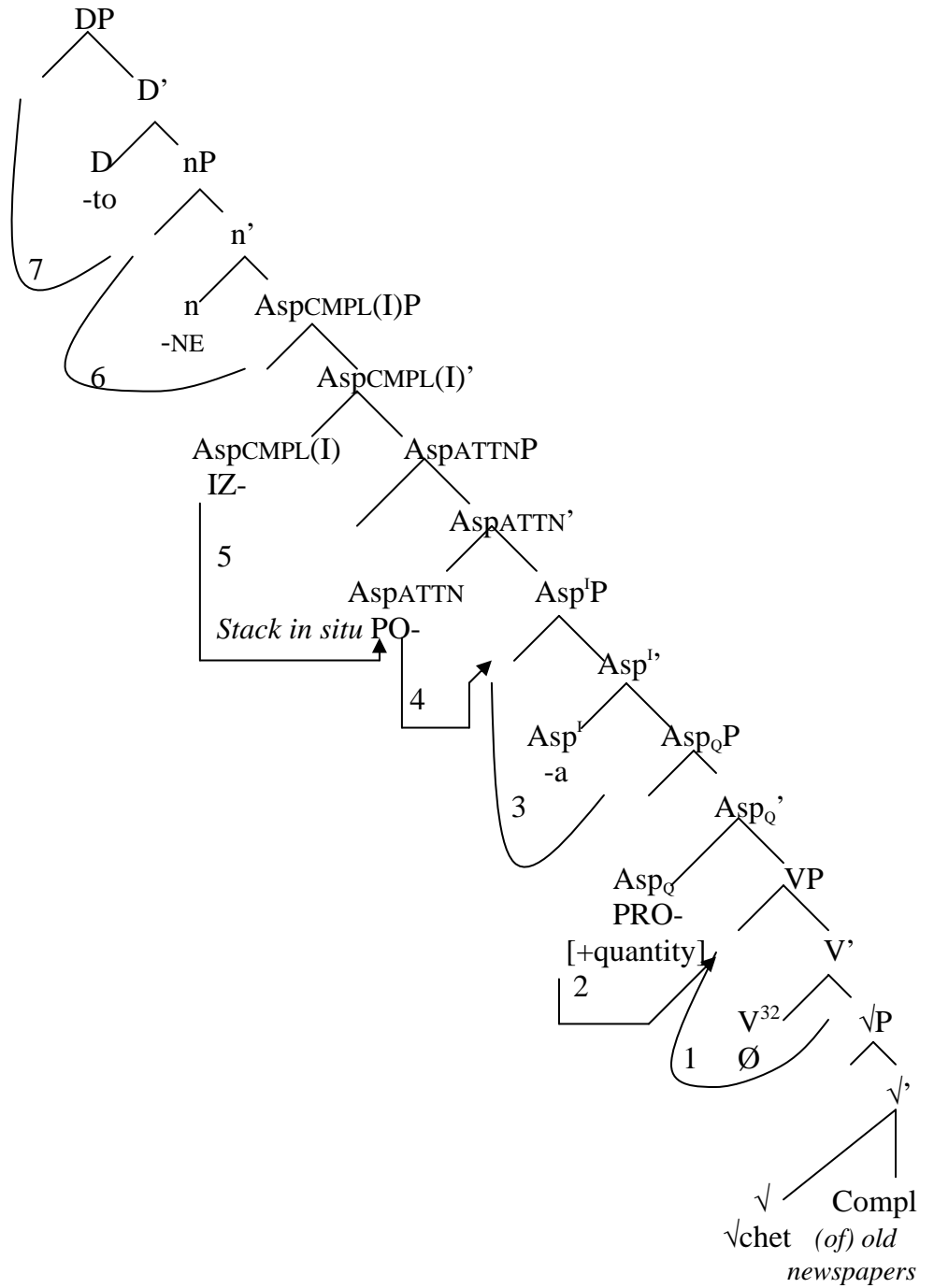
A syntactic analysis is proposed in (18) below:

(18) *The syntax of super-lexical prefixes:*

(a) The –NE nominals (cf. 16a’)

IZ-PO-PRO-chit-a-ne-to na star-i-te vestnits-i

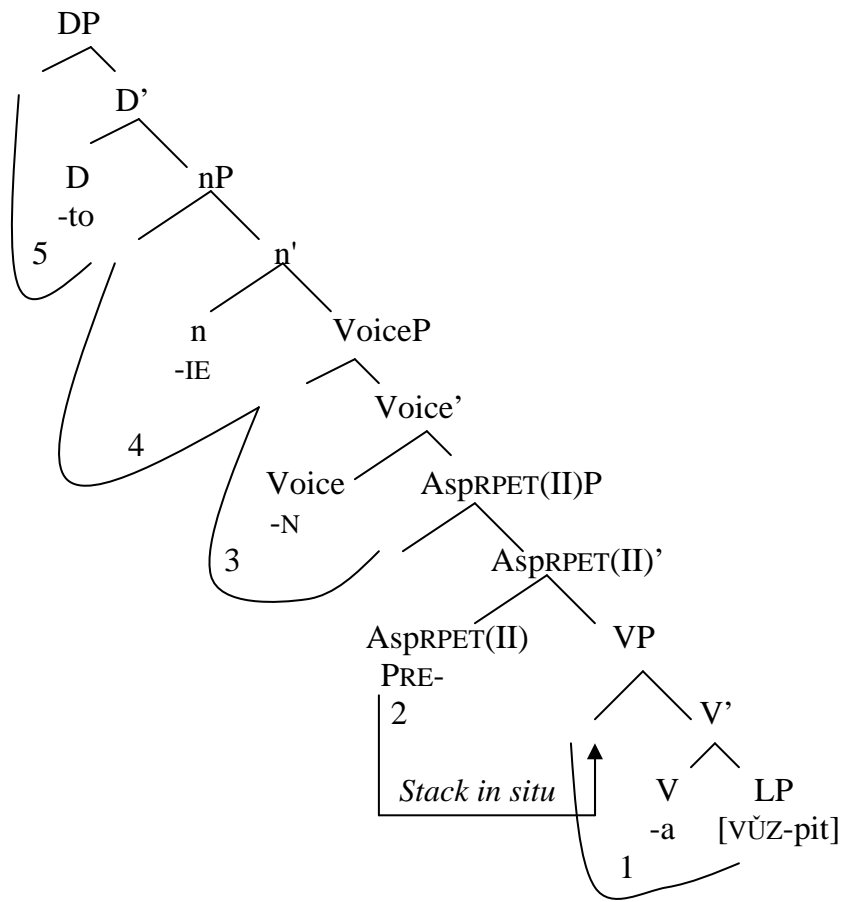
‘The reading through completely little by little of the old newspapers’



³² Note that the root is $\sqrt{\text{chet}}$ whereas once it gets verbalized, we obtain [chit]. This change in the root vowel suggests that the thematic vowel is present though covert. Thus, the V head is occupied by the covert verbalizer [Ø].

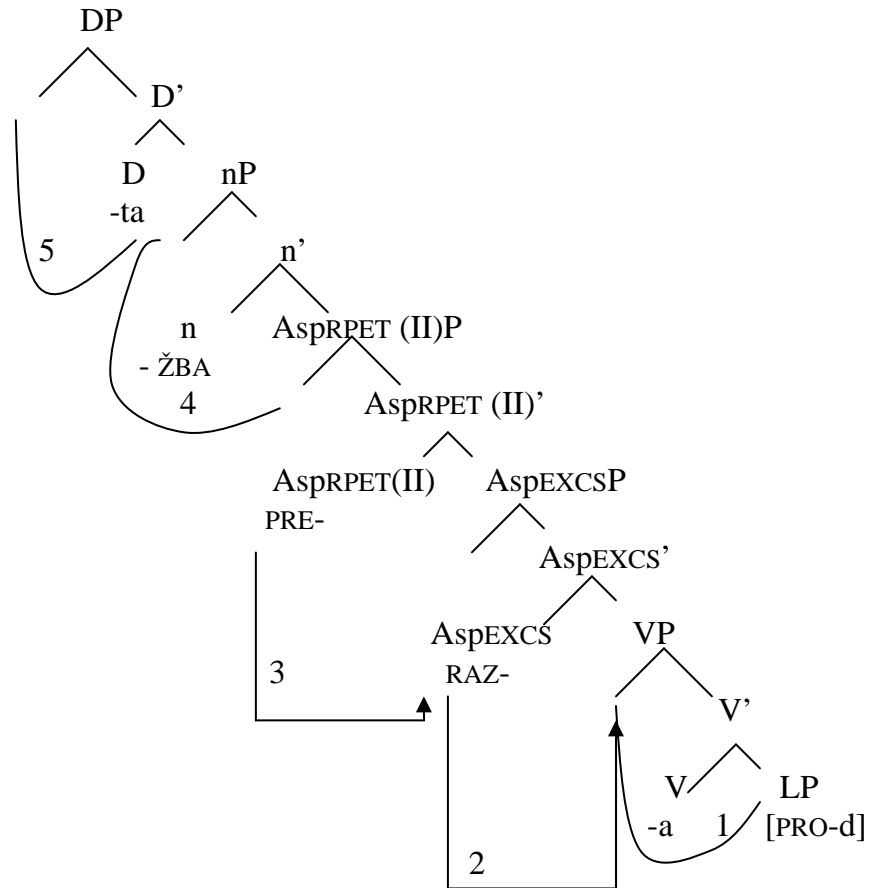
(b) The -IE nominals (cf. 16b)

PRE-vůzpit-a-n-ie-to ‘the re-education’



(c) Eventive ‘Other-suffix’ nominals (cf. 16c)

PRE-RAZ-[PRO-d]-a-žba-ta ‘the sale again in excess’



From the representations in (18) we see that super-lexical prefixes, in the same way as the perfectivizing ones, occupy head positions of their corresponding aspectual projections.³³ Again, we have phrasal movement only. Consider the derivation of (18a), for example. A detailed step-by-step movement representation

³³ See Svenonius (2004b) for an alternative proposal where super-lexical prefixes are claimed to be phrasal. However, having in mind that prefixes are drawn from the prepositional inventory (Svenonius 2004c), they, thus, share categorial features with prepositions. Svenonius (2004c: 217) claims that in the Slavic languages nearly all of the prefixes can be used as prepositions, or are homophonous with prepositions. Thus, having in mind that prepositions are heads of their own projection (PP), I would rather consider prefixes as heads of their corresponding aspectual projections as well.

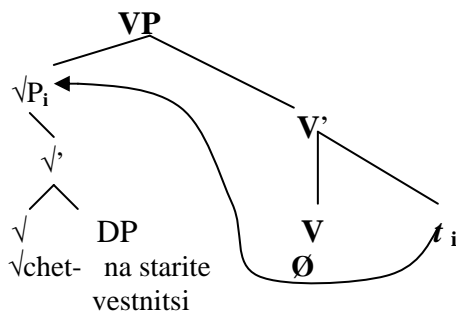
for (18a) is provided in (19) below. The same mechanisms take place in the rest of the cases (18b, c):

(19) Step-by-step movement operations (cf. 18a):

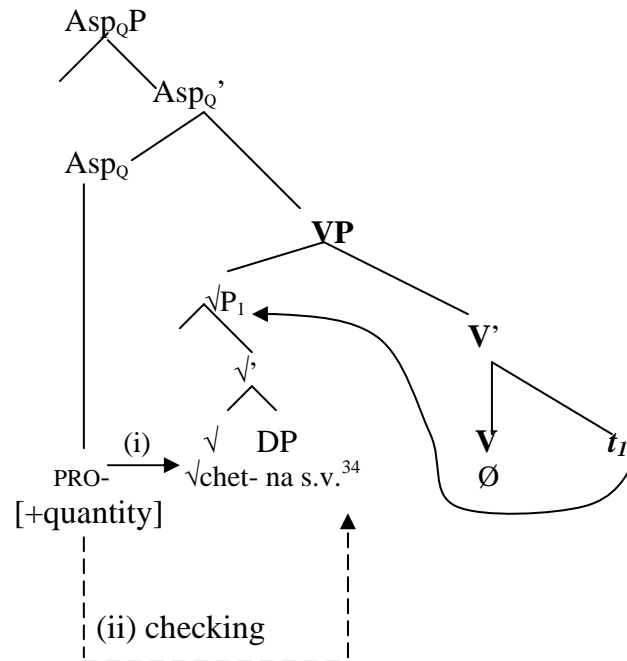
IZ-PO-PRO-chit-a-ne-to na star-i-te vestnits-i

‘The reading through completely little by little of the old newspapers’

1. [_{VP} √chet-] Verbalization: ROOT MERGING WITH V IN [SPEC, VP]

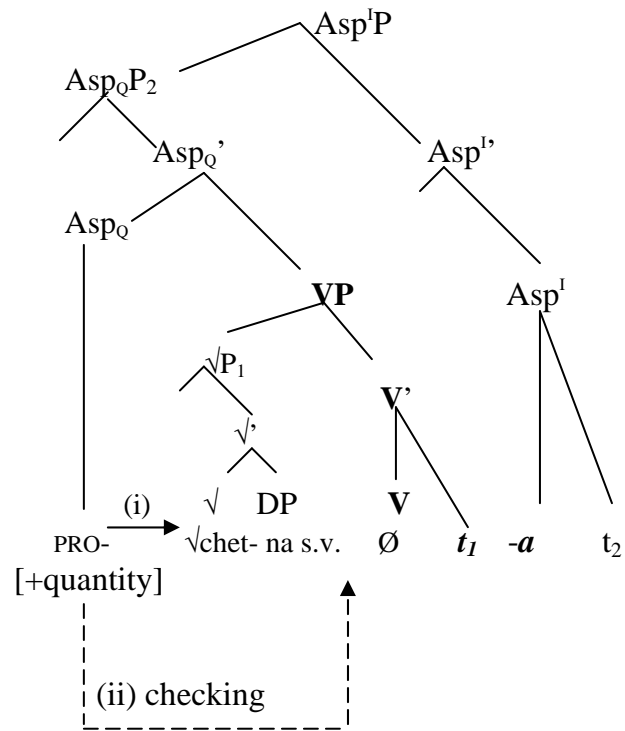


2. (i): Quantificational stacking (Asp_Q (PRO-) stacks to $[VP, \sqrt{P}]$ in Spec,VP)
(ii): Feature checking/sharing and Agreement: [PRO-] checks the [+quantity] feature of the DP complement in Spec,VP.

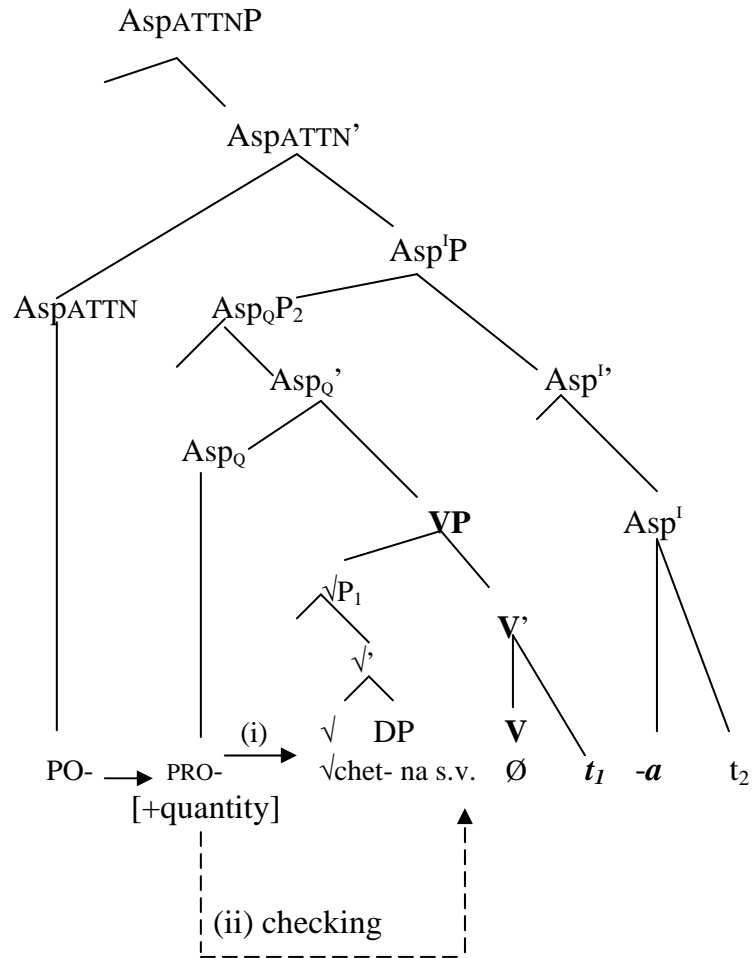


³⁴ Here I abbreviate 'starite vestnitsi' (the old newspapers) as s.v. for space reasons.

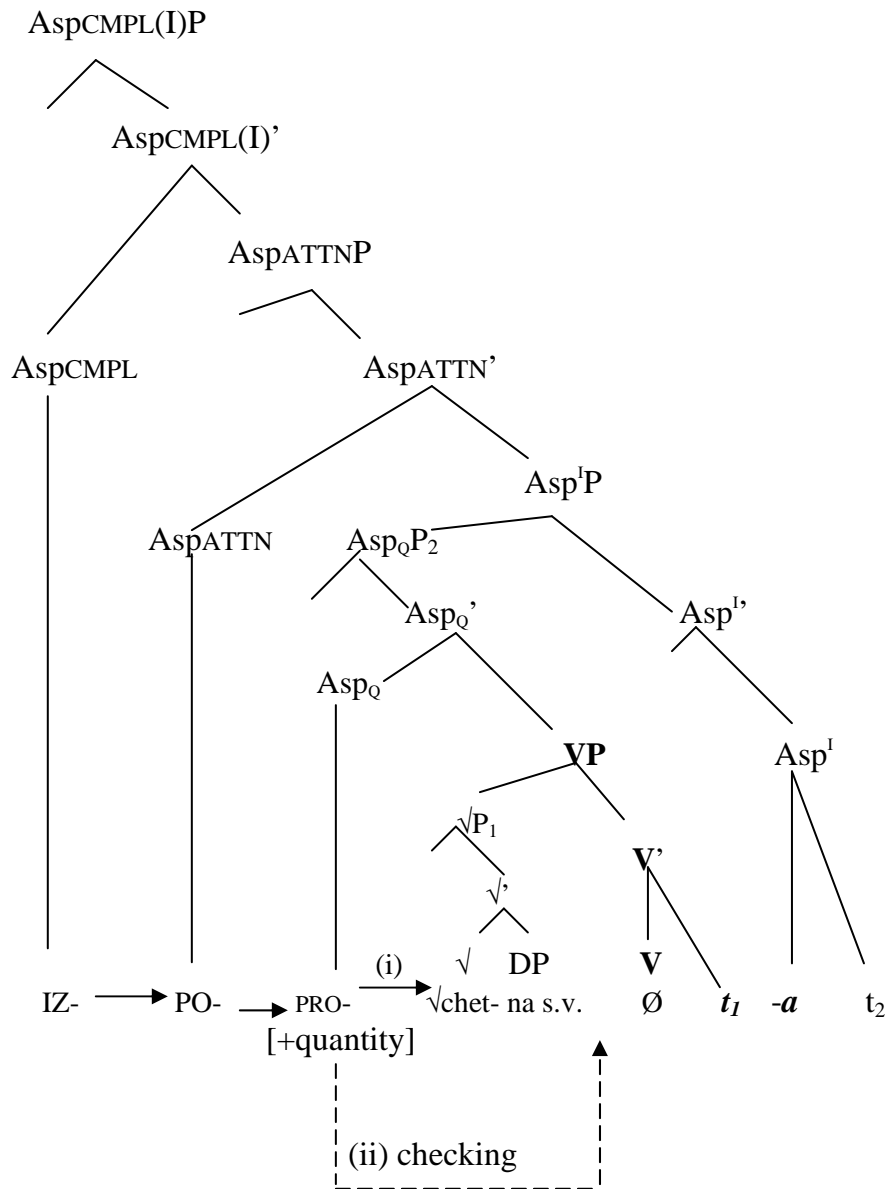
3. Secondary imperfectivization: [Asp_QP, VP, √P] moves to Spec, Asp^IP to attach the secondary imperfective suffix *-a*:



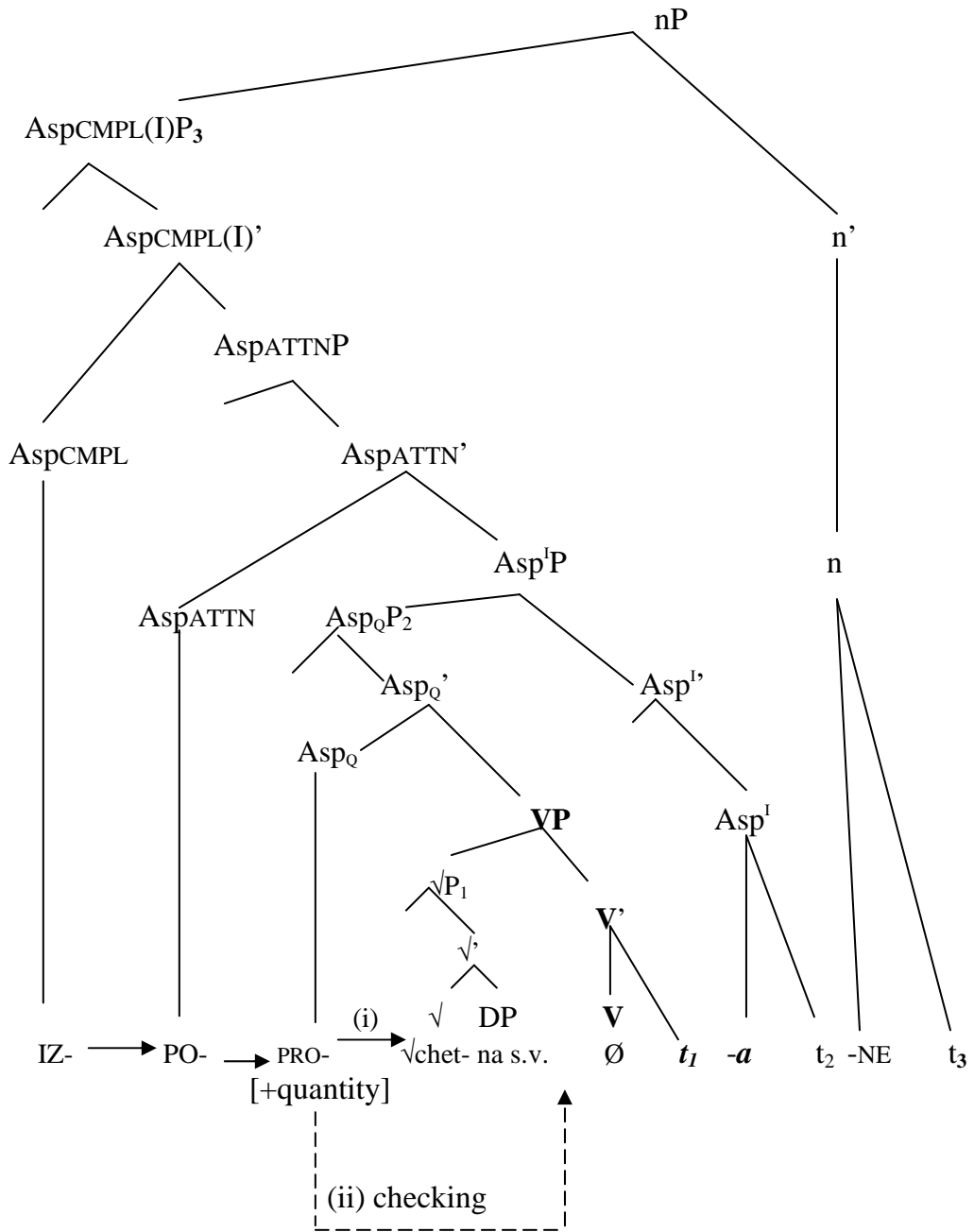
4. Super-lexical stacking: the attenuative super-lexical prefix [PO-] stacks to [Asp¹P, Asp_QP, VP, √P] in situ, i.e, right on top of the quantificational prefix [PRO-] in Spec, Asp¹P:



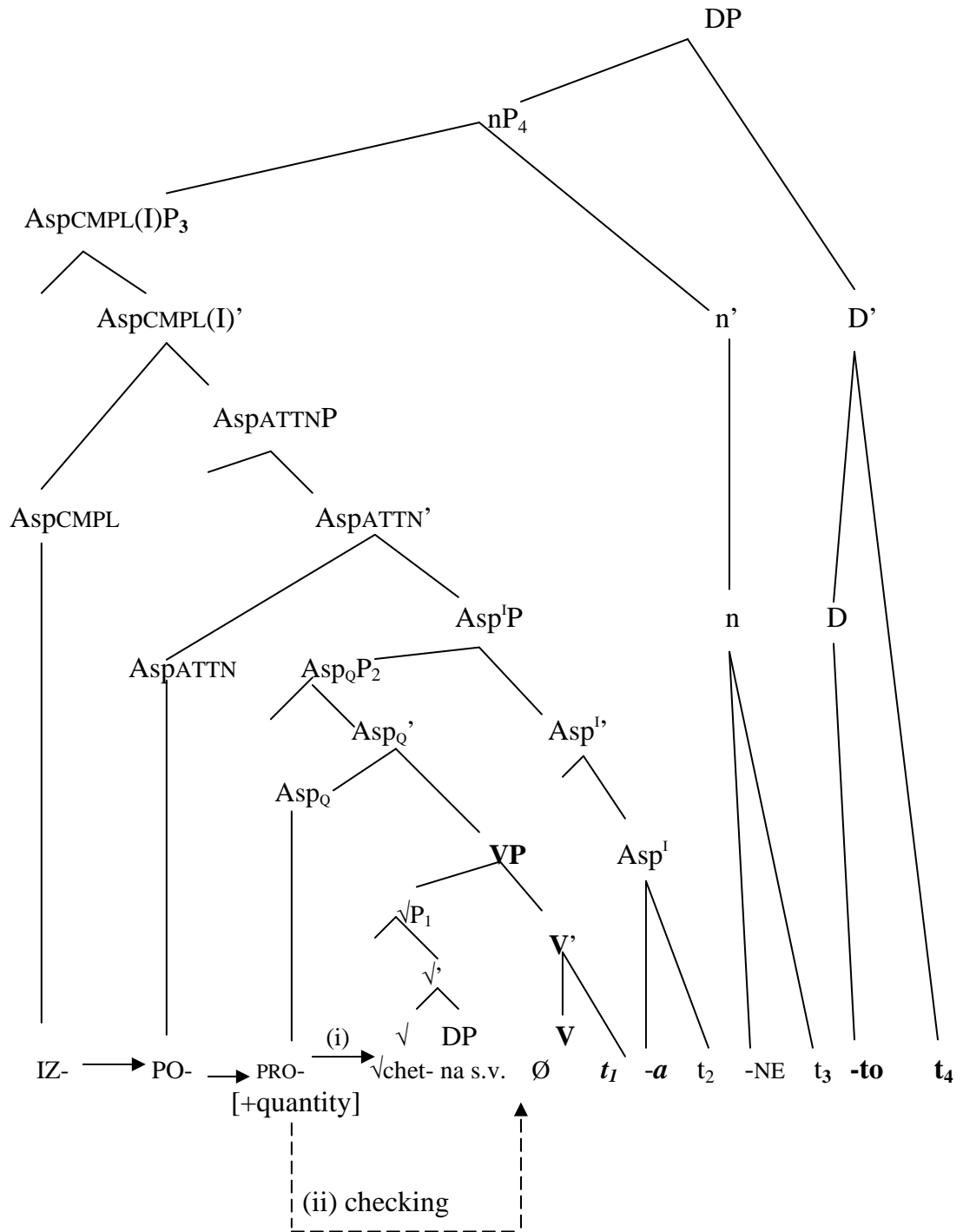
5. Super-lexical stacking: the completive super-lexical prefix [IZ-] stacks to [AspATTNP, Asp¹P, Asp₀P, VP, √P] in situ, i.e. right on top of the attenuative super-lexical prefix [PO-]:



6. Nominalizing: [AspCMPL(I)P, AspATTNP, Asp¹P, Asp₀P, VP, √P] moves to Spec,nP and attach the nominalizer suffixal head –NE:



7. Attaching the definite article: moving the nominal complex [nP, AspCMPL(I)P, AspATTNP, Asp¹P, Asp_QP, VP, √P] to Spec, DP where the definite article [-to], a D suffixal head, attaches:



From the derivations in (19) we can observe that movement is again from the phrasal type only. The Root phrase \sqrt{P} moves to Spec,VP to verbalize (19: 1). Evidence for verbalization is found by the vowel mutation of the derived nominal (i.e, the root is [*chet*] ‘read’ whereas the nominalization is [PRO-*chit*-a-ne-to] ‘the reading through’). Once verbalized in Spec,VP, the quantificational prefix PRO- stacks to the complex [VP, \sqrt{P}] in situ, i.e, in Spec,VP (19: 2). Then, the whole structure [Asp_QP, VP, \sqrt{P}] move to Spec, Asp¹P so that the imperfective suffix [-a] could attach to it (19: 3). Once the structure gets imperfectivized, super-lexical prefixes stack one after another in situ. That is, I assume that super-lexical prefixes stack one to another in the hierarchical way in which they appear, without any movement. This can further explain the fact that higher super-lexical prefixes always scope over the lower ones. Thus, the super-lexical prefix PO- from (18a) directly attaches to the complex [Asp¹P, Asp_QP, VP, \sqrt{P}] located in Spec, Asp¹P (19: 4). After this, the higher super-lexical prefix IZ- then stacks directly to the newly formed complex [PO-, Asp¹P, Asp_QP, VP, \sqrt{P}] thus scoping over the lower super-lexical prefix PO- (19: 5). Then, the whole structure [IZ-, PO-, Asp¹P, Asp_QP, VP, \sqrt{P}] moves to Spec,nP to get nominalized by the nominalizing suffix –NE (19: 6). Finally, the definite article is attached by moving the whole [nP, IZ-, PO-, Asp¹P, Asp_QP, VP, \sqrt{P}] to Spec,DP (19: 7). The final result is the nominalization **IZ-PO-PRO-*chit*-a-ne-to** ‘the reading through completely little by little’ (cf. 18a). Again, there is no possibility for the complement DP ‘*na starite vestnitsi*’ (of the old newspapers) to intervene during the derivation due to the fact that it constitutes a phase (Chomsky (2001)).

5.4. Some concluding remarks

To recapitulate, we have seen that both aspectual prefixes and suffixes play an important role in the process of nominalization. As for the first, I have proposed that whereas lexical prefixes are derived lexically as part of the verbal stem, pure perfectivizing (or quantificational) ones are derived syntactically as heads of Borer’s (2002) Asp_QP. In fact, we saw that there are several reasons for such a claim. Lexical prefixes, on one hand, derive new lexical items and thus

change the argument structure of the new prefixed verb (nominalization). Additionally, they appear in all of the nominalization types in Bulgarian. As for quantificational perfectivizing prefixes, they don't change the meaning of the derived verb. Rather, they just perfectivize it. In doing so, the presence of the internal argument becomes obligatory. This was explained by the fact that once derived as heads of Asp_QP, these prefixes mark this head as [+quantity]. This imposes further restrictions on the internal argument of the nominalization which is subsequently checked for the feature [+quantity] by the quantificational prefix. Thus, this argument should always appear positively specified for the feature [quantity]. However, we have also seen that such an agreement relation obtains only in cases where the internal argument of the verb is also its Incremental Theme argument (see ftn. 25). It was also shown that there are syntactic reasons to claim that Asp_QP be derived closer to the stem, below the projection hosting the secondary imperfective suffix.

As for super-lexical prefixes, I have proposed that they should also be derived syntactically. Due to their adverbial semantics, we saw that these prefixes can be analysed following Cinque's (1999) hierarchy of aspectual features. Syntactically, they are heads of an aspectual projection found above VP.

We have also seen that not all nominalization types accept super-lexical prefixes. Thus, only the –NE nominals allow for any super-lexical prefix to appear inside them. This is due to the fact that nominalizers nPs, in my analysis, derive above all of the aspectual projections hosting the super-lexical prefixes. Thus, on its way up to nP, the –NE nominals can pick up any super-lexical prefix.

The Voice –IE nominals, on the other hand, allow only for the repetitive [PRE-] prefix. The reason for this is syntactic. Once the verbal stem incorporates the passive participial suffix –N/-T, the nominalizer –IE immediately attaches to the structure. Once nominalized, further prefixation is blocked. Having in mind that the participial morphemes –N/-T derive under VoiceP, it explains why super-

lexical prefixes found below it are acceptable inside the –IE nominals (i.e, the prefix PRE-). Higher prefixes, on the other hand, are not.

The eventive ‘other-suffix’ nouns, on the other hand, allow for the repetitive [PRE-] and the excessive [RAZ-] prefixes. The reason for this cannot be syntactic because, in the same way as the –NE nominals, there is no intermediate position (such as VoiceP in the case of the –IE nouns) that could block further prefixation. We may thus speculate that there is some semantic feature responsible for this behaviour. I leave this issue for further investigation.

CHAPTER 6: CONCLUSION AND FURTHER DISCUSSION

In this work, I have tried to offer a detailed analysis of Bulgarian nominalizations in the Principles and Parameters framework (Chomsky 1981 *et seq.*). Departing from the assumption that the behaviour of nominals is linked to the functional layers of the construction (T, D, Asp, v, etc.) and the feature specification of such layers (Alexiadou (2001), van Hout and Roeper (1998), among others), I have shown that morphologically we can distinguish three types of nominalizations in Bulgarian.

The first type consists of nouns derived on roots or stems via the merger with a gender marker or a suffix marked for gender. These nominalizations, which I have labelled ‘other-suffix’ nominals, lack Aspect and Voice projections. This explains the fact that, in the majority of the cases, such nouns denote objects or results, but not events. These nominalizations have received little or no attention in the previous literature.

The second nominalization type consists of nouns derived on Voice Phrase. Contrary to previous analyses, I have shown that these nouns, which I have labelled “Voice –IE” nominals, are what have been traditionally regarded as –NIE nouns in the literature. I have provided further evidence, both semantic and syntactic, to show that such nouns are, in fact, past passive participial nominalizations. This further explains the fact that, in the majority of cases, they have a resultative meaning.

The third nominalization type consists of nouns derived on Aspect Imperfective Phrase. These are what have been traditionally regarded as –NE nominals in the literature. These nouns always allow for a process reading. It has been suggested that this is due to the fact that such nominals are always derived on imperfective verbal bases. I have also proposed that there is much more diversity among this group of nominalizations that has traditionally been acknowledged. Thus, I distinguish between gerundive –NE constructions and

derived nominal constructions. As for the first, we have seen that these formations take over some gerundive functions found in languages like English. The derived nominal group, on the other hand, corresponds to Grimshaw's (1990) *Complex Event nominals*. However, contrary to previous assumptions, I have also shown that such nouns, apart from denoting processes, can sometimes denote objects as well. The reason for this was suggested to be historical.

Crucial to my analysis of Bulgarian nominalizations is Grimshaw's (1990) assumption that without event structure there is no argument structure. I have shown, using data on Bulgarian deverbal nouns, that such a claim is confirmed. Thus, as far as argument structure is concerned, we can also distinguish three nominalization types.

The first group consists of true *argument structure nominals*. It includes some transitive and prefixed process –NE nominalizations. These are nouns which, in the same way as verbs, require the presence of their internal arguments obligatorily. This behaviour has been explained in terms of syntactic structure and composition. That is, it is the transitive nature of such nouns or the presence of perfectivizing prefixes which makes the projection of the internal argument obligatory. These would correspond to Grimshaw's (1990) *Complex Event nominals*.

The second nominalization type consists of the so called *participant structure nominals* (Grimshaw 1990). It includes all of the eventive nominalizations (eventive: 'other-suffix', -IE, and –NE nouns). Though these nouns allow for internal and external arguments to be projected, this is only optional. Additionally, the external argument, when introduced, may have various interpretations and should not refer to the Agent exclusively. These would correspond to what Grimshaw (1990) labels as *Simple Event nominals*.

Finally, the third nominalization type is the *Result nominals*. These include object-denoting and result ('other-suffix', -IE, and –NE) nouns. These

nominalizations don't denote events and hence cannot take internal arguments. Thus, they have no argument structure. I have suggested that such nominals project modifiers that may restrict the denotation of the lexical item. These roughly correspond to Grimshaw's (1990) *Result nominals*.

From the data above we may conclude that each morphological nominalization type ('other-suffix', Voice –IE, and –NE nominals) can include event denoting and result (object) denoting nouns. The reason for this is syntactic. I have claimed that the event denotation is licensed by the presence of thematic vowels (overt or covert). Such vowels, apart from turning a root into a stem, additionally verbalize the structure. This further allows the nominals to denote events and hence take optional internal arguments becoming, thus, *participant structure* nouns (Grimshaw 1990). Otherwise, they remain result or object denoting nouns. However, only the transitive and prefixed process –NE nominals can be true argument structure nominals. This is due to the fact that they are always derived on imperfective verbal bases and hence always allow for a process reading. This makes them resemble verbs in greater degree than the rest of the nouns.

The eventive/non-eventive distinction inside nominals, apart from intervening in argument structure, also accounts for the syntactic behaviour of such nouns. Thus, all of the eventive nouns allow for time and manner modification, and the adjective '*frequent*' whereas the pure object denoting nouns never do. As for agent-oriented adverbials, only the argument-structure –NE nouns accept them. This suggests that such modification, apart from eventive semantics, requires argument structure as well. An interesting case in this respect is the group of the result nouns which are ambiguous between object and result interpretation. These nouns don't denote events. However, in their result interpretation, they can combine with manner adverbials and the adjective '*frequent*'. A plausible explanation for this was suggested to be that such modifiers don't relate directly to the noun, i.e, the output of the event, but to the

implicit event which have caused this output. However, more research is needed on this issue.

Nominalizations behave differently as far as telicity is concerned. Whereas only the process –NE nominals systematically allow for atelic modifiers, the rest of the nouns do not. This may further support the hypothesis that the –NE nouns inherit the aspectual properties of the verb which, in turn, explains their durativity semantics. However, (a)telicity also depends on some properties of the lexical item (the presence or not of perfectivizing prefixes, the presence of telic PPs, etc.).

Finally, no matter whether they are eventive or not, all of the nominalization types accept nominal modification (Pluralization, Indefinites, Numerals, and Demonstratives). This may suggest that eventivity doesn't play a role here. Rather, it is the syntactic category, a noun, that licenses such modification.

In this work I have shown that not only roots, but also stems can be modified in syntax. I have further claimed that category-changing functional projections such as nominalizers (nP) are necessary so that a non-nominal stem (or a categoriless root) could be interpreted as a noun. I have proposed that gender morphemes and derivational suffixes with inherent gender have such a nominalizing function in Bulgarian. Thus, they are nominalizing heads [n°] in my analysis.

Another issue examined in this work has been the role of prefixation inside the nominalizing process. I have proposed that a triple distinction among prefixes should be made. I have provided evidence that the first group, the so called lexical prefixes, should be derived lexically, i.e., as part of the verbal stem. The second group, the pure perfectivizing (or quantificational) ones, should be derived syntactically as heads of Borer's (2002) Asp_QP. There are several reasons for such a claim. Lexical prefixes, on one hand, derive new

lexical items and thus change the argument structure of the new prefixed verb (nominalization). Additionally, they appear in all the nominalization types in Bulgarian. As for quantificational perfectivizing prefixes, they don't change the meaning of the derived verb. Rather, they just perfectivize it. In doing so, the presence of the internal argument becomes obligatory. It has been suggested that several factors account for this behaviour.

The third group of prefixes consists of the so called super-lexical prefixes. I have proposed that they should also be derived syntactically. Due to their adverbial semantics, we saw that these prefixes can be analyzed following Cinque's (1999) hierarchy of aspectual features. Syntactically, they are heads of an aspectual projection found above VP.

We have also seen that not all nominalization types accept super-lexical prefixes. Only the –NE nominals allow for a super-lexical prefix. The Voice –IE nominals, on the other hand, allow only for the repetitive [PRE-] prefix. The reason for this has been shown to be syntactic. The eventive 'other-suffix' nouns also block certain types of super-lexical prefixes. Thus, they allow only for the repetitive [PRE-] and the excessive [RAZ-] prefixes. To explain this, I have provisionally suggested that there could be some semantic feature responsible for this behaviour.

Finally, I have also examined the type of movement operations involved in the nominalizing process. I have shown that movement is of the phrasal type only (Cinque 2000, 2005; Mahajan 2000; Ferrari 2005). Contrary to previous head-incorporation approaches to suffixes (Baker 1988), I have shown that there is no need to postulate head movement in order to account for the right sequence of suffixes DP-internally. Instead, such a sequence can be accounted for by successive cyclic movements of larger and larger XPs from Spec to Spec positions inside the nominalization. As for the derivation of prefixes, I have proposed that they do not move in syntax. Rather, they stack to the preceding (previously prefixed or not) verbalized structure in situ. This claim is further

supported by the scope dependencies and interactions between prefixes in case of multiple prefixation, or what is known as stacking, where the higher prefix always scopes over lower ones.

There are many questions that remain unanswered. Many issues demand further and deeper analyses and more dedication. It would be interesting to find out why certain transitive –NE nominalizations project their internal arguments obligatorily whereas others do not. What does exactly make the projection of the internal argument obligatory? Is it Causativity that marks the difference? To what extent do telicity and perfectivization contribute to such phenomenon?

On empirical grounds, it would be also interesting to see whether other languages show parallel nominalization types as the ones studied in this work. (I have the intuition that they do, at least in the case of Catalan.) If so, do they behave in a similar way? Where do we detect differences among languages and why? What is cross-linguistically common, i.e., given by UG, and what is language-specific?

Finally, we have seen that many of the differences between nominalizations have been explained in terms of syntactic structural difference and composition. However, we have also seen that some of the facts cannot be explained syntactically. These include the unavailability of certain super-lexical prefixes inside the eventive ‘other-suffix’ nouns, the possibility of the result nominals to be modified by manner adverbials, etc. If so, to what extent does semantics intervene in the behaviour of nominalizations and where exactly? Of course, there is a long way to run and, unfortunately, by now, we can only speculate.

Appendix 1: Table of Transliteration and Transcription

<i>Bulgarian Letters</i>	<i>Transliteration¹</i>	<i>Transcription IPA²</i>
Аа	Aa	/a/
Бб	Bb	/b/
Вв	Vv	/v/
Гг	Gg	/g/
Дд	Dd	/d/
Ее	Ee	/ɛ/
Жж	Žž	/ʒ/
Зз	Zz	/z/
Ии	Ii	/i/
Йй	Jj	/j/
Кк	Kk	/k/
Лл	Ll	/l/
Мм	Mm	/m/
Нн	Nn	/n/
Оо	Oo	/ɔ/
Пп	Pp	/p/
Рр	Rr	/r/
Сс	Ss	/s/
Тт	Tt	/t/
Уу	Uu	/u/
Фф	Ff	/f/
Хх	Hh	/x/
Цц	Ts, ts	/ts/
Чч	Ch, ch	/tʃ/
Шш	Sh, sh	/ʃ/
Щщ	Sht, sht	/ʃt/
Ъъ	Ŭŭ	/ɤ/
Ьь³	Jj	/i/
Юю	Ju, ju	/ju/
Яя	Ja, ja	/ja/

¹ There are several transliteration systems used for the Romanisation of Bulgarian Cyrillic. However, none of them is by far the most dominant and recognizable, and each has disadvantages. Here, I use symbols from the system of the United Nations and [BGN/PCGN](#).

² I use the International Phonetic Alphabet (IPA) for the phonetic transcription.

³ Softens consonants before /ɔ/.

Appendix 2: List of Abbreviations

1	first person	INCP	Inceptive
2	second person	MASC	masculine
3	third person	N	noun
A	adjective	NEUT	neuter
ACC	accusative	NON-FIN	non-finite
AOR	aorist	NUM	numeral
ATTN	attenuative	O	object
CAUS	causative	PASS	passive
CL	clitic	PF	perfective
CMLT	cumulative	PL	plural
CMPL	completive	POSS	possessive
COMPL	complement	PRT	participle
COUNT	countable	PS	person
DAT	dative	Q	quantity
DEM	demonstrative	REFL	reflexive
DLMT	delimitative	RPET	repetitive
DSTR	distributive	S	subject
EXCS	excessive	SEM	semelfactive
FEM	feminine	SG	singular
FIN	finite	TH.VOW	thematic vowel
GEN	genitive	TRMN	terminative
IMPF	imperfective	VOW	vowel

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