

Vowel and Consonant Alternations in the Bulgarian Verbal System

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Abstract

The aim of this paper is to explore the vowel and consonant alternations in the Bulgarian verbal system. With the target to achieve my aim of this study, I am undertaking the following tasks: 1) to go through the Bulgarian verb system 2) to define what is an alternation, and how does it carry out in the Bulgarian verb system. 3) to support my aim with clear, detailed examples and explanations.

Keywords: Slavonic Linguistics; Bulgarian Verb System; Vowel and Consonant Alternations; Verb Forms; Morphology

1 Introduction

The aim of my work is to explore the vowel and consonant alternations in the Bulgarian verbal system. With the target to achieve my aim of this study, I am undertaking the following tasks:

1. To go through the Bulgarian verb system, which includes the examining of verb forms, conjugations groups, verbal stems, etc.
2. To define what is an alternation, and how does it carry out in the Bulgarian verb system. This task includes drawing a clear idea about vowel and consonant alternations from the existing theories of different scholars and how it is carrying out in the Bulgarian verb form-formation. This task is set based on the fact that a learner of the Bulgarian language can come across vowel and consonant alternations not only in the verb system, but also in nouns, adjectives and other contents as well.
3. The key task of my dissertation is to support my aim with clear, detailed examples and explanations.

Enabling to echo with the theory part, I first classify the examples by the stems – Present, Aorist and Imperfect stems; which means all the verb forms using the same type of stem for their form-formation are being put together. Under each stem type, there are sub-contents i.e. Present Tense, Past Passive Participle, etc. Under each sub-content, the examples are set out following the order of the three conjugation groups, i.e. first, second, third, if necessary.

The selected examples are presented in the form of tables. Theoretically, only imperfective base verbs are being chosen, which means they don't have either prefixes or suffixes. However, there are still perfective verbs that don't have a base form (as their base imperfective verb has died out in the contemporary Bulgarian language) but do carry out alternations supporting my theory. In this case, the prefix of the verb would be put in brackets in the tables.

The consonant and vowel alternations in this dissertation are based on the comparison of the verb form to its Base Form¹.

In order to work efficiently with the listed tasks, I synthesised the relevant theories mainly from the following scholars and their works: Ruselina Nicolova (*Bulgarian Grammar*), Kjetil Rå

¹ Definition of Base form is explained in the Theory Part.

Hauge (*A Short Grammar of Contemporary Bulgarian*), Petar Pashov (*Balgarska gramatika*) and Stoian Stouanov (*Gramatika na balgarski knizhoven ezik*), as well as the phonetic theory from the book *Gramatika na carvermenniya balgarski knizhoven ezik v tri toma*. The reason why I chose works that published several decades ago as well as the one released recently, is because I want to discover that within this duration of time, are there any changes taken place within the theoretical area of the Bulgarian verb system. Meanwhile, I also hope to find out whether alternations are still actively appearing in the contemporary Bulgarian language.

Majority examples in this dissertation are taken or adapted from the Bulgarian verb dictionary *Dzhobna gramatika na balgarski ezik, glagol* edited by Vladimir Zhobov and Georgi Kolev, and all the other works mentioned above.

2 The Bulgarian Verb System

The verb is a part of speech that includes a word (or group of words) that indicates an action, mental state or condition as a process in time. The action can be physical, as in such verbs as walk, run, jump, swim, or mental, as in such verbs as hope, dream, believe, etc. There are also verbs like be and become express a state or condition rather than an action.

The action, which has been represented by the verb, is always referred to a person or an object. However, not every word that means an action or a state is a verb. For example, in Bulgarian the word ‘бяг (*biag*)’ is not a verb, but a noun, which means “running”. This is because, although it means an action, the action is related to neither the person who carried out this action nor the implemental time duration of this action. The Bulgarian verb for “run” is “бягам (*biagam*)”, since it denotes an action that is being done in the present by the speaker himself. In other words, the word (or the verb form) contains within itself the meaning of the corresponding action, as well as the doer who committed this act and the time when this action has been carried out. Unlike the English verb, Bulgarian word “бягам (*biagam*)” equals to the sentence “Аз бягам сега (*Az biagam sega*)” - “I am running now”. Therefore, in Ancient Greece, the verb is also being called the soul of the sentence.

3 Verb Forms

3.1 Overview

Linguist Ruselina Nocolova has listed the grammatical meaning expressed by the Bulgarian verb forms as following (Nokolova, 2017, p. 318):

- 1) Grammatical meanings characterising the object to which the dynamic property is ascribed: **person**, **number** and **gender**;
- 2) Grammatical meanings connected with dynamic (processual) property: **tense** and **aspect**;
- 3) Grammatical meaning connected with the relation between the subject and the dynamic property ascribed to it: **voice**;
- 4) Grammatical meanings connected with the relation of the speaker to the information about the dynamic property: **mood**, **evidentiality**, **admirativity**.

Same as in English, the form that is used for listing a Bulgarian verb in dictionaries is the 1st Person Singular Present; for impersonal verbs the 3rd Person Singular Present. There are no infinitives in contemporary Bulgarian verb system, though once they have been existed in Old Bulgarian.

So what is an infinitive? In English, the infinitive is composed of two words: to + the dictionary form of the verb; this form, without the to, is sometimes called the bare infinitive in grammar books. Although it is the most basic form of the verb, the infinitive in English can never be used in a sentence without another verb. E.g. I need to read this book. In this case, “need” is the verb and “to read” is the infinitive. The same idea works in Bulgarian. *Трябва да прочета книга (Tryabva da procheta kniga)*. “Трябва (Tryabva)” is the verb and “да прочета(da procheta)” is the infinitive.

“Since the infinitive is not a living category of the Bulgarian verb (there are vestigial old infinitive forms only), the Bulgarian linguistic tradition uses three main representative finite forms: first person singular present indicative form for verbs with normal paradigm, third person singular form for impersonal verb and third-person verbs, and first-person plural for pluralia tantum verbs.” (Nokolova, 2017, p. 322)

However, from the point of view of the other linguists, “finite form” is a disputed term. Hence, in this dissertation, enable to differentiate with the 1st Person Singular Present, the base verb form used for paradigm will be called the base form.

3.2 Personal and Impersonal Verb Forms

In the nine Bulgarian tenses, only three of them, which are the Present, Past Aorist and Past Imperfective, are base tenses while other six are compound tenses. The dissertation has set the task to focus only on these three. Please be aware, that the verb forms related with *base tenses* are agreeing to *person* and *number*, but not to *gender*. That’s why these verb forms are called Personal verb forms (bg) *Лични глаголни форми(lichni glagolni formi)*. They reflect the subject of the verb and the nature of the action, i.e., the subject of the sentence is the doer of the action. Most likely, the personal verb forms are used in active voice sentences, and they help to express an idea vigorously and concisely and is most often heard in conversational speech.

According to Stoianov:

“Значението на личната глаголна форма се съдържа представа за предмет или предметност и представа за признак като процес, действие или състояние на същия предмет или същата предметност. Представата за носителя на признака (процеса, действието, състоянието) се нарича глаголно лице или субект на глаголаото действие. Личните глаголни форми могат да се изменят по лице и по число, т. е. могат да се спрягат, например: чета, четеш, чете, четем, четете, четат; четох, чете и пр. ” (Stoianov, 1993, p. 313)

The personal verb forms also include the Imperative verb forms (bg) *Повелително наклонение(Povelitelno naklonenie)*.

We can learn from the formation of the nine tenses, that Bulgarian tenses consist not only three base forms but also participles. The participles (bg) *причастия(prichastiya)* use for the tenses are the Past Aorist Active participles (bg) *Минало Съвършено Деятелно причастия(Minalo Svarsheno Deyatelno prichastiya)*, and there are still Present Active participles (bg) *Сегашно Деятелно причастия(Segashno Deyatelno prichastiya)*, Past Imperfective Active participle (bg) *Минало Несвършено Деятелно причастия(Minalo Nesvarsheno Deyatelno prichastiya)*

Necvarsheno Deyatelno prichastiya) and Past Passive participles (bg) *Минало Страдателно причастия* (*Minalo Strdatelno prichastiya*). Participles are partly verb and partly adjective and change their endings like adjectives. They also carry our vowel and consonant alternations when having their form-formations. If we also need to put them within a verbal-form group, the participles, therefore, are belonging to the category of Impersonal verb forms (bg) *Нелични глаголни форми* (*nelichni glagolni formi*). Referring to Nocolova's list (Nokolova, 2017, p. 318), when the verb forms characterising the object's gender and number, instead of person and number, the forms are called impersonal verb forms. Means they lack person in their grammar content.

Stoianov explains his definition for impersonal verb forms as

“Неличните глаголни форми се наричат така, защото не се изменят по лице, а тога значи, че не притежават граматическа категория „глаголно лице”. Неличните глаголни форми не могат да се спрягат.” (Stoianov, 1993, p. 313)

Besides the participles; the impersonal verb forms also include Gerund (bg) *Деепричастие* (*Deeprichastie*) and verbal nouns (bg) *Отглаголни Съществителни* (*Otglagolni Sashtestvitelni*).

3.3 Person and Number

By considering Nokolova's list (Nokolova, 2017, p. 318) as a reference, the first two grammatical meanings of the verbs – *person* and *number*, are also the two most essential features that the learners of Bulgarian would first come across.

The grammatical categories for the person or the object, which the verbal action is referred to, are being called “*лице* (*litse*)” – “person” and “*число* (*chislo*)” – “number”. Most often (but not always), this person is the one who committed the act. The person, which shows the relation between the agent(s) of the action on one hand and the participant(s) of the speech event on the other: agent and speaker coincide (first person); agent and hearer coincide (second person); agent coincides neither with speaker nor hearer (third person); and of number, which quantifies the agent as one (singular) or more than one (plural). (Hauge, 1999, p. 85) First person, denoting that the subject is identical with the speaker. Second person, denoting that the subject is identical with the hearer. Third person, denoting that the subject is non-participant in the act of speech. (Nokolova, 2017, p. 320)

3.4 Gender and Number

While lacking person, the impersonal verb forms (excluding gerunds and verbal nouns) have to agree with *gender* and *number*. The grammatical meaning of gender is expressed in participles, which are used either as part of analytic verb forms or independently. The impersonal verb form distinguishes the same three genders masculine, feminine and neuter (bg) *мъжки, женски и среден род* (*mazhki, zhenski i sreden rod*) inflectionally as nouns do, but while with nouns gender is an inherent, invariable category of predominantly classifying and selecting nature, with verb forms gender is the position of the subject. (Nokolova, 2017, p 320) They also need to consider number while conjugating. The three genders can be either singular or plural. When being plural, the three genders share the same ending for their verb forms.

4 Conjugation

4.1 Overview

If by chance you're not a native Bulgarian speaker, please take your time and try to remember your very first class when learning Bulgarian verbs. The first grammar most likely to be mentioned is the conjugation of the present tense, and this introduction also builds learners' knowledge of the term "*conjugation*". The verb conjugation, from my understanding, is a list of six different forms of the verb, one for each of the subject pronouns – first, second and third persons, singular and plural. Textbooks always show the conjugation in a chart, in which each verb form is stated side by side with the matching pronoun. These pronouns, no doubt, are the indicators of *person* (or *gender*) and *number* shown in the conjugated verb forms.

4.2 Conjugation Groups

Before moving further into the following part, we must have a clear idea of what is a conjugation group (bg) *спрежение* (*sprezhenie*). All the Bulgarian linguistic sources, as well as the textbooks, explain every form-formation in the Bulgarian verb system by following the conjugation groups. Bulgarian verbs can be grouped into three conjugations groups, and the classification is based on the thematic vowel used when conjugating for Present tense. The thematic vowel is a single vowel that inserts after the verbal root morpheme and before the ending that agrees to the person and number, or the gender and number. The three conjugation groups are referring as the first, second and third conjugation group.

1) First Conjugation Group

In this group, verbs use the thematic vowel *-e-*. E.g. *чета* (*cheta*) – “read”

1st Person Singular	чета	1st Person Plural	четем
2nd Person Singular	четеш	2nd Person Plural	четете
3rd Person Singular	чете	3rd Person Plural	четат

2) Second Conjugation Group

In this group, verbs use the thematic vowel *-u-*. E.g. *говоря* (*govorya*) – “speak”

1st Person Singular	говоря	1st Person Plural	говорим
2nd Person Singular	говориш	2nd Person Plural	говорите
3rd Person Singular	говори	3rd Person Plural	говорят

3) Third Conjugation Group

In this group, verbs use the thematic vowel *-a-*. E.g. *казвам* (*kazvam*) – “say”

1st Person Singular	казвам	1st Person Plural	казваме
2nd Person Singular	казваш	2nd Person Plural	казвате
3rd Person Singular	казва	3rd Person Plural	казват

5 Verbal Stem

According to contemporary Bulgarian grammar, a verbal stem means the part of a verb that is formed by a root morpheme (bg) *коренна морфема* (*koreнна morfema*) and the thematic vowel (bg) *тематична гласна* (*tematichna glasna*). Linguists, such as Stoianov (Stoianov, 1993, p. 438), Pashov (Pashov, 1999, p. 140) and Hauge (Hauge, 1999, p. 90) all believe that the Bulgarian verb has two stems – present and aorist. According to their theories, the Present tense, the Past Imperfective, the Imperative, the Present Active participle, the Past Imperfective

Active participle and the Gerund are formed from the *Present* stem; while the Past Aorist, the Past Aorist Active participle, the Past Passive participle and the Verbal Noun are formed from the *Aorist* stem.

In recent years, linguists including Nicolova (Nicolova, 2017, p. 382) support the idea that the Bulgarian verb can have three stems. She believes that the verbs of the first and second conjugations have three stems: *present*, *aorist* and *imperfect*; while the third conjugation verbs have only one stem – the *present* stem.

I support the idea that a Bulgarian verb has three stems – *present*, *aorist* and *imperfect*. However, I disagree with Nicolova’s theory (Nicolova, 2017, p. 382) that the third conjugation verbs only have one stem. The third conjugation verbs also have three stems; the three stems are simply *identical*. Hence, unifying my firm belief of three verbal stems. According to the three-stem theory, the Present tense and the Gerund are formed from the *Present* stem; the Past Aorist, the Past Aorist Active participle, the Past Passive participle and the Verbal Noun are formed from the *Aorist* stem; and the Past Imperfect, the Present Active participle and the Past Imperfective Active participle are formed from the *Imperfect* stem.

The forming of Imperative is hard to group. That’s why linguists debate there should be two verb stems instead of three. One can consider it is formed from either the *Present* stem, or the *Imperfect* stem. As we all know, the difference between the *Present* stem and the *Imperfect* stem is the *thematic vowel*. E.g. *чета(cheta)* it’s Present stem is *чeтè-(chetè-)* and it’s Imperfect stem is *чeтjа-(chetjа-)*. But the forming of Imperative is based on the root morpheme of the *Present/Imperfect* stem plus the imperative thematic vowel and the ending agrees to person and number. As the root morpheme for the *Present* and *Imperfect* stems is identical, it is not possible to say precisely which stem the Imperative is formed from. In this dissertation, I decide to group the *Imperative* into the **Present stem**.

Nevertheless, I still support the theory that one verb should have three verbal stems. The examine that supports this theory can be delivered by the verbs *чета(cheta)* – “read” from the first conjugation group, *говоря(govorya)* – “speak” from the second conjugation group, and *казвам(kazvam)* – “say” from the third conjugation group through their verb forms in three tenses – Present tense, Past Aorist and Past Imperfect. The stress of the verb form is also indicated.

– First Conjugation Group: *чета(cheta)* – “read”

1) Present Tense

1st Person Singular	чeтà	1st Person Plural	чeтèм
2nd Person Singular	чeтèш	2nd Person Plural	чeтèтe
3rd Person Singular	чeтè	3rd Person Plural	чeтàт

2) Past Aorist

1st Person Singular	чeтoх	1st Person Plural	чeтoхмe
2nd Person Singular	чeтe	2nd Person Plural	чeтoхтe
3rd Person Singular	чeтe	3rd Person Plural	чeтoхa

3) Past Imperfective

1st Person Singular	чeтjах	1st Person Plural	чeтjахмe
2nd Person Singular	чeтjэшe	2nd Person Plural	чeтjахтe
3rd Person Singular	чeтjэшe	3rd Person Plural	чeтjахa

The present stems for *чета(cheta)* is *чeтè-(chetè-)*. Though the 1st Person Singular and 3rd Person Plural are different to the rest, it is not correct to think that there are two present stems for this verb. P. Pashov believed that this phenomenon exists because the 1st Person Singular and 3rd Person Plural forms for present tense have lost their thematic vowel. (Pashov, 1999, p. 140) K. Hauge also agrees to Pashov that the /-ə/ and /-ət/ parts of the 1st Person Singular and

3rd Person Plural Present Tense forms of the First and Second conjugation groups are endings, rather than compounds of thematic vowel and ending. (Hauge, 1999, p. 92) Therefore, the preferred way to find the present stem of the verb from all conjugation groups is to check its 3rd Person Singular form, as it has the thematic vowel and zero personal ending.

The aorist stems for *чема(cheta)* are *чѐме-(chète-)* for 2nd Person and 3rd Person Singular, and *чѐмо-(chèto-)* for remaining. *Twenty-four* imperfective base verbs [including *чема(cheta)*] from the first conjugation group have two aorist stems. For these verbs, the Aorist stem that is used for 2nd Person and 3rd Person Singular contains the thematic vowel *-e-*, and the other one contains the thematic vowel *-o-*. For imperfect stem, it is *чѐтя-(chetyà-)* for all the forms.

- Second Conjugation Group: *говоря(govorya)* – “speak”

1) Present Tense

1st Person Singular	говòря	1st Person Plural	говòрим
2nd Person Singular	говòриш	2nd Person Plural	говòрит
3rd Person Singular	говòри	3rd Person Plural	говòрят

2) Past Aorist

1st Person Singular	говòрих	1st Person Plural	говòрихме
2nd Person Singular	говòри	2nd Person Plural	говòрихте
3rd Person Singular	говòри	3rd Person Plural	говòриха

3) Past Imperfect

1st Person Singular	говòрех	1st Person Plural	говòрехме
2nd Person Singular	говòреше	2nd Person Plural	говòрехте
3rd Person Singular	говòреше	3rd Person Plural	говòреха

The present stems for *говоря(govorya)* is *говòру-(govòryi-)*. For aorist stem, it is *говòри-(govòri-)* for all the forms. And for imperfect stem, it is *говòре-(govòre-)*. In this case, the Present stem and the Aorist stem are entirely identical.

- Third Conjugation Group: *казвам(kazvam)* – “say”

1) Present Tense

1st Person Singular	кàзвам	1st Person Plural	кàзваме
2nd Person Singular	кàзваш	2nd Person Plural	кàзвате
3rd Person Singular	кàзва	3rd Person Plural	кàзват

2) Past Aorist

1st Person Singular	кàзвах	1st Person Plural	кàзвахме
2nd Person Singular	кàзва	2nd Person Plural	кàзвахте
3rd Person Singular	кàзва	3rd Person Plural	кàзваха

3) Past Imperfect

1st Person Singular	кàзвах	1st Person Plural	кàзвахме
2nd Person Singular	кàзваше	2nd Person Plural	кàзвахте
3rd Person Singular	кàзваше	3rd Person Plural	кàзваха

As indicated before, the three stems are identical – they are all *кàзва-(kàzva-)*.

However, there are some irregular conjugations happened when the verb *чема(cheta)* is formed into 2nd Person Singular and 3rd Person Singular for *Past Imperfect* tense. The *Imperfect* stem for *чема(cheta)* is *чѐтя-(chetyà-)*, but when the stem meets the ending *-ше(-she)*, *чѐтя-(chetyà-)* converts into *чѐтѐ-(chetè-)*. The alternation of *я(ya)* into *е(e)* is a vowel alternation.

6 Vowel and Consonant Alternations

The aim of this section is to draw a clear idea about vowel and consonant alternations, as they appear frequently in the contemporary Bulgarian language. The alternations are not only existed in the verb system, but also in all word aspects. Therefore, the examples provide in the following part will not only be verbal forms, but nouns, adjectives as well.

According to the linguistic definition, an alternation (bg) *редуване*(*reduvane*) means the variation that a morpheme exhibits in its phonological realisation (an alternant). A morpheme is the smallest part of a word that contains grammatical meaning. Theoretically, alternation can be caused by phonological, morphological, or other conditions, in which the morpheme finds itself. In the contemporary Bulgarian language, consonant and vowel alternations appear in both written and speech forms. Historical or modern phonetic laws may lead to these alternations. When a sound is under certain conditions, it has to carry out change to suit the particular phonetic position. Hence, it starts to alternate with another sound. When the change of sounds is regular and governed by phonetic rules, it is being called a phonetic law (bg) *звуков закон*(*zvukov zakon*).

The historical phonetic law is the cause of many consonant alternations when they experience the word form-formation. Though this phonetic law is still present in the contemporary language, it is being called historical law because it follows a rule, which is no longer playing a vital role in the modern Bulgarian language. According to philologists², during the early period of the Bulgarian language it was not possible to form such syllables, i.e. *ge*(*ge*), *ke*(*ke*), *he*(*he*). Referring to the vowel and consonant classifications, we can find out that *e* is a front vowel (bg) *предна гласна*(*predna glasna*), and *k*, *g*, and *x* are velar consonants (bg) *задноезични съгласни*(*zadnoezichni caglasni*). Hence, we can realise that front vowels cannot be followed by velar consonants. Based on this rule, in order to be followed by the front vowel *e*, all the velar consonant “*z*”s will be alternated into “*ж*”s, all the “*к*”s into “*ч*”s, and all the “*х*”s into “*ш*”s. That’s why in Bulgarian we have *влага*(*vлага*) — *влажен*(*vlazhen*), *юнак*(*iunak*)— *юначен*(*iunachen*), *стомах*(*stomah*) — *стомашен*(*stomashen*) and etc. Enable to deliver a better understanding of this phonetic law we can also review it from a comparative-linguistic perspective. Because Old Church Slavonic (OCS) is closely related to the Old Bulgarian, that’s why we can also find this phonological rule appears in OCS as well. S. C. Garner mentioned in his OCS grammar book: “Velar consonants —*k*, *g*, *x*. These cannot be followed by a front vowel”(Garner 1984, p. 19). Garner’s statement strongly supports my theory.

P. Pashov believed that in the past the postalveolar consonants (bg) *небни съгласни*(*nebni caglasni*) *ж*, *ч* and *ш* are always being soft. (Pashov, 1998, p. 41) The replacement of *z*, *к*, *х* into *ж*, *ч*, *ш* when it is followed by front vowels, is, therefore, called the “palatalisation”. Same as OCS, in the history of the Bulgarian language, the palatalisation also has happened twice. The alternation of *z*, *к*, *х* into *ж*, *ч*, *ш* happened in the first one, and during the second one *z*, *к* and *х* that in front of the front vowels were more often being alternated in to *з*, *ц* and *с*. *З*, *ц* and *с* are alveolar consultants (bg) *алвеодентални съгласни*(*alveodentalni caglasni*). As a result of the second palatalisation, now in Bulgarian we have *съпруг*(*saprug*) — *съпрузи*(*sapruzi*), *юнак*(*iunak*) — *юнаци*(*iunatsi*), and *стомах*(*stomah*) — *стомаси*(*stomasi*). Hence, three sets of alternations are established: *z* — *ж* — *з*, *к* — *ч* — *ц* and *х* — *ш* — *с*. Nowadays, we can also find that these alternations can, somehow, be interchangeable, i.e. *ж* alternate directly into *з*, or *ж* into *z* when it is not in front of a front vowel.

² Petar Pashov; *Balgarska gramatika*; Izdatelstka kashta “Khermes”; Sofia, 1999; p41

Due to these consonant alternations, vowel alternations will also take place enable to correspond to the phonetic law. Therefore, when we come across the alternations in the contemporary Bulgarian verbal system, we can notice that the consonant and vowel alternations may happen simultaneously. As mentioned before, velar consonants cannot be followed by front vowels, only when they alternate into postalveolar or alveolar consonants they can then be followed by front vowels. Meanwhile, there is another phonetic law that there can only be front vowel in front of a syllable containing front vowel. Because of this law, now in Bulgarian verbal system we have *(в-)ляза(v-liaza)*(base form) — *(в-)лезеш(v-lezesh)* (2nd Person Singular Present Tense). Consequently, when there is an alternation of postalveolar or alveolar consonant into velar consonant, the front vowel before or after the alternated consonant can also be changed. Hence, in the Bulgarian verb system we can find two alternations happen at the same time. I.e. *режа(resha)*(base form) — *ряза(riaza)*(2nd Person Singular Past Aorist form).

The vowel alternation shows in the example above is *e — я*, it can also happen *verse versa*. The *я — e* alternation is known as the most frequent vowel alternation in the contemporary Bulgarian language. Historically this alternation is a result of different developments of the yat vowel (ѣ) (bg) ятова гласна (iatova glasna) that is lower than /e/ and more fronted than /a/. (Hauge, 1999, p. 11) The yat vowel was once existed in Old Bulgarian and is extinct in modern days. This vowel alternation can also be referred as the yat-umlaut.

The yat-umlaut will **only happen** when meeting **as least one** of the following conditions:

- 1) The vowel is not in the stressed syllable. E.g. *сняг(snyag)* — *снегът(snegat)* , *място(myasto)* - *места(mesta)*
- 2) It is placed in front of a syllable containing *ж, ч, ш* (the palatal consonants) or *й*. E.g. *сняг(snyag)* — *снежен(snezhen)*, *мяко(mlyako)* — *млечен(mlechen)*, *грях(gryah)* — *грешка(greshka)*
- 3) It is in front of a syllable containing front vowels *e* or *и*. E.g. *бял(byal)* — *бели(beli)*, *пял(pyal)* — *пели(peli)*.
- 4) It is in front of a syllable containing a soft consonant that is indicated by *ю, я* or *ьо*. E.g. *място(myasto)* — *местя(mestyа)*, *пяна (pyana)*— *пеня се(penyа se)*.

But there are also exceptions to these rules

- 1) The yat-umlaut occurs to words that are borrowed from Russian (or Old Church Slavonic) and from Western Bulgarian dialect while not following the conditions. E.g. *зрял(zryal)* — *зрелост(zrelost)*, *лято(lyato)* — *дълголетна(dalgoletna)*, *гняв(gnyav)* — *гневна(gnevna)*.
- 2) The yat-umlaut does not occur to the first and second person plural verb forms of the Past Aorist and the Past Imperfect of the first and second conjugation groups. E.g. *четяхме(chetyahme)*, *четяхте(chetyahte)*; *пяхме(pyahme)*, *пяхте(pyahte)*.
- 3) The yat-umlaut occurs to the perfective verbs from the first conjugation groups that are formed with the suffix *-на* while not following the conditions. E.g. *клякам(klyakam)* — *клекна(klekna)*, *плясвам(glyasvam)* — *плесна(plesna)*. The alternations between imperfective and perfective verbs (as the examples show) are not going to be discussed in the following part of this dissertation, as the aim of my work is to focus only on the alternations appear in imperfective base verbs.
- 4) The yat-umlaut occurs inconsistently in the singular nouns ending in *-ост*. E.g. *престаряlost*(*prestaryalost*) — *престаряlostта*(*prestaryalostta*)
- 5) If the main stress is not on the vowel, the vowel is written as *e* in the subordinate basis of complex words. E.g. *беломорски(belomorski)*

As now we have established a more thorough understanding about the vowel and consonant alternations, we may continue and examine the alternations in the Bulgarian verbal system with detailed examples.

7 Vowel and Consonant Alternations: Present Stem

7.1 Present Tense – First Conjugation Group

1) Consonant Alternation

– K-Ч Alternation

Base Form	Present Stem	Singular			Plural		
		1 st Person	2 nd Person	3 rd person	1 st Person	2 nd Person	3 rd person
пекà	печè-	пекà	печèш	печè	печèm	печèте	пекàт
секà	сечè-	секà	сечèш	сечè	сечèm	сечèте	секàт
рекà	речè-	рекà	речèш	речè	речèm	речèте	рекàт
текà	течè-	текà	течèш	течè	течèm	течèте	текàт
влекà	влечè-	влекà	влечèш	влечè	влечèm	влечèте	влекàт
(съ-))блекà	(съ-))блечè-	(съ-))блекà	(съ-))блечèш	(съ-))блечè	(съ-))блечèm	(съ-))блечèте	(съ-))блекàт

The listed verbs all have consonant alternations from the velar consonant “к” into the postalveolar consonant “ч” when forming their Present tense verb forms. These facts indicate that the alternations also appear in their Present stems. As mentioned previously, there is no thematic vowel inserted for the 1st Person Singular Present tense, which at the same time, also matches the Base Form. We are able to tell the root morphemes of the listed verbs are “пек(pek)”, “сек(sek)”, “рек(rek)”, “тек(tek)”, “влек(vlek)” and “(съ-)блек[(ca)blek]”. For the First Conjugation Group, the thematic vowel attached to the root morphemes to form the present verbal stems is –e– (which is a front vowel). Hence, the velar consonant must follow the phonological rule and change into the postalveolar consonant, therefore, gain the right to be followed by a front vowel. These alternations also change their root morphemes from “пек(pek)”, “сек(sek)”, “тек(tek)”, “влек(vlek)” into “печ(pech)”, “сеч(sech)”, “реч(tech)”, “влеч(vlech)”. Though the base root morpheme and its alternant are different by form, but they carry out the same meaning. That’s why we can confirm the alternated root morphemes are the allomorphs of the base ones.

– Г-Ж Alternation

Base Form	Present Stem	Singular			Plural		
		1 st Person	2 nd Person	3 rd person	1 st Person	2 nd Person	3 rd person
мога	можè-	мога	можèш	можè	можèm	можèте	могат

Verb *мога(moga)* has the consonant alternation from the velar consonant “г” into the postalveolar consonant “ж” for its Present stem “можè-(mohè)-”, as well as all its Present tense verb forms. Its base root morpheme “мог(mog)” is ended in the velar consonant “г”; enable to be followed by the thematic vowel –e– (which is a front vowel) to form the Present stem, it has to be alternated into “ж”. The alternant root morpheme “мож(mozh)” is the allomorph of its base root morpheme “мог(mog)”.

2) Vowel Alternation: Я-Е Alternation (Yat-umlaut)

Base Form	Present Stem	Singular			Plural		
		1 st Person	2 nd Person	3 rd person	1 st Person	2 nd Person	3 rd person
(в-) ляза	(в-)лèзе-	(в-)ляза	(в-)лèзеш	(в-)лèзе	(в-)лèзем	(в-)лèзете	(в-) лязат

Verb *(в-)ляза* [(v-)lyaza] has the vowel alternation from the middle vowel “я” into the front vowel “e” for its Present stem “(в-)лèзе- [(v-)lèze-]”, as well as all its Present tense verb forms. Its root morpheme “(в-)ляза [(v-)lyaz]” contains the vowel “я”. According to the phonetic law, when the yat vowel is in front of a syllable containing front vowels *e* or *u*, the yat-umlaut will take place. Therefore, enable to be followed by the thematic vowel –e– to form the present stem “я” has to be alternated into “e”.

7.2 Gerund – First Conjugation Group

1) Consonant Alternation

– К-Ч Alternation

Base Form	Present Stem	Gerund
пекà	печè-	печèйки
секà	сечè-	сечèйки
текà	течè-	течèйки
влекà	влечè-	влечèйки

The listed verbs all have consonant alternations from the velar consonant “к” into the postalveolar consonant “ч” in their Present stems. Due to the fact that the Gerund forms are formed from the Present stems, therefore, the alternations appear again. (Please refer to the Present Tense part for detailed analysis.)

– Г-Ж Alternation

Base Form	Present Stem	Gerund
мòга	мòже-	мòжейки

Verb *мога* (moga) has the consonant alternation from the velar consonant “г” into the postalveolar consonant “ж” in its Present stem “мòжè- (mòshè-)”. Due to the fact that the Gerund forms are formed from the Present stems, therefore, the alternation appears again. (Please refer to the Present Tense part for detailed analysis.)

7.3 Imperative – First Conjugation Group

1) Consonant Alternation: *K-C* Alternation

Base Form	Present Stem	Imperative
пекà	печè-	печй, печèте
секà	сечè-	сечй, сечèте
рекà	речè-	речй, речèте
текà	течè-	течй, течèте
влекà	влечè-	влечй, влечèте
(сь-)блекà	(сь-)блечè-	(сь-)блечй, (сь-)блечèте

The listed verbs all have consonant alternations from the velar consonant “к” into the postalveolar consonant “ч” in their Present stems. (Please refer to the Present Tense part for detailed analysis.) Due to the fact that the Imperative forms are formed from the Present stems, therefore, the alternations appear again.

2) Vowel Alternation: *Я-E* Alternation (Yat-umlaut)

Base Form	Present Stem	Imperative
(в-)ля̀за	(в-)лèзе-	(в-)лèз, (в-)лèзте

Verb *(в-)ля̀за* [*(v-)lyaza*] has the vowel alternation from the middle vowel “я” into the front vowel “e” in its Present stem “*(в-)лèзе-* [*(v-)lèze-*]”. (Please refer to the Present Tense part for detailed analysis.) Due to the fact that the Imperative forms are formed from the Present stems, therefore, the alternation appears again.

8 Vowel and Consonant Alternations: Aorist Stem

8.1 Past Aorist – First Conjugation

1) Consonant Alternation

– *Ж-З* Alternation

Base Form	Aorist Stem	Singular			Plural		
		1 st Person	2 nd Person	3 rd Person	1 st Person	2 nd Person	3 rd Person
блйжа	блйза-	блйзах	блйза	блйза	блйзахме	блйзахте	блйзаха
вържа	върза-	вързах	върза	върза	вързахме	вързахте	вързаха
кàжа	кàза-	кàзах	кàза	кàза	кàзахме	кàзахте	кàзаха
лйжа	лйза-	лйзах	лйза	лйза	лйзахме	лйзахте	лйзаха
мàжа	мàза-	мàзах	мàза	мàза	мàзахме	мàзахте	мàзаха
нйжа	нйза-	нйзах	нйза	нйза	нйзахме	нйзахте	нйзаха
харйжа	харйза-	харйзах	харйза	харйза	харйзахме	харйзахте	харйзаха

The listed verbs all have consonant alternations from the postalveolar consonant “ж” into the alveolar consonant “з” when forming their Past Aorist verb forms. These facts indicate that the alternations also appear in their Aorist stems. What the meaning carries out by these

alternations is somewhat grammatical than phonetic. The alternation does not reveal any phonetic law but differentiates the Aorist stem from the other stems. We are able to tell that the Present and Imperfect stems for all the listed verbs are identical. They are *блѣже-* (*blizhe-*), *вѣрже-* (*vàrzhe-*), *кѣже-* (*kàzhe-*), *лѣже-* (*lizhe-*), *мѣже-* (*màzhe-*), *нѣже-* (*nizhe-*), and *харѣже-* (*harizhe-*). Compare to the Aorist stems listed above, we can distinguish the difference. As mentioned before, only verbs from the Third Conjugation Group have three identical stems. Hence, the difference between the three stems for these verbs is presented by the *ж-з* consonant alternation together with the Aorist thematic vowel.

– *Ж-Г* Alternation

Base Form	Aorist Stem	Singular			Plural		
		1 st Person	2 nd Person	3 rd Person	1 st Person	2 nd Person	3 rd Person
лѣжа	лѣга-	лѣгах	лѣга	лѣга	лѣгахме	лѣгахте	лѣгаха
стрѣжа	стрѣга-	стрѣгах	стрѣга	стрѣга	стрѣгахме	стрѣгахте	стрѣгаха
стѣржа	стѣрга-	стѣргах	стѣрга	стѣрга	стѣргахме	стѣргахте	стѣргаха

The listed verbs all have consonant alternations from the postalveolar consonant “ж” into the velar consonant “з” when forming their Past Aorist verb forms. These facts indicate that the alternations also appear in their Aorist stems. What the meaning carries out by these alternations is also grammatical. The alternation also differentiates the Aorist stem from the other stems. We are able to tell that the Present and Imperfect stems for all the listed verbs are also identical. They are *лѣже-* (*làzhe-*), *стрѣже-* (*strizhe-*) and *стѣрже-* (*starzhe-*). The difference between the three stems for these verbs is presented by the *ж-з* alternation together with the Aorist thematic vowel.

– *Ч-К* Alternation

Base Form	Aorist Stem	Singular			Plural		
		1 st Person	2 nd Person	3 rd Person	1 st Person	2 nd Person	3 rd Person
дѣвча	дѣвка-	дѣвках	дѣвка	дѣвка	дѣвкахме	дѣвкахте	дѣвкаха
мяуча	мяука-	мяуках	мяука	мяука	мяукахме	мяукахте	мяукаха
плѣча	плѣка-	плѣках	плѣка	плѣка	плѣкахме	плѣкахте	плѣкаха
смѣча	смѣка-	смѣках	смѣка	смѣка	смѣкахме	смѣкахте	смѣкаха
сѣча	сѣка-	сѣках	сѣка	сѣка	сѣкахме	сѣкахте	сѣкаха
тѣпча	тѣпка-	тѣпках	тѣпка	тѣпка	тѣпкахме	тѣпкахте	тѣпкаха

The listed verbs all have consonant alternations from the postalveolar consonant “ч” into the velar consonant “к” when forming their Past Aorist verb forms. These facts indicate that the alternations also appear in their Aorist stems. What the meaning carries out by these alternations is also grammatical. The alternation also differentiates the Aorist stem from the other stems. We are able to tell that the Present and Imperfect stems for all the listed verbs are also identical. They are *дѣвче-* (*dàvche-*), *мяуче-* (*miaùche-*), *плѣче-* (*plache-*), *смѣче-* (*smùche-*), *сѣче-* (*sùche-*), and *тѣпче-* (*tàpche-*). The difference between the three stems for these verbs is presented by the *ч-к* alternation together with the Aorist thematic vowel.

– III-C Alternation

Base Form	Aorist Stem	Singular			Plural		
		1 st Person	2 nd Person	3 rd Person	1 st Person	2 nd Person	3 rd Person
бърша	бърса-	бърсах	бърса	бърса	бърсахме	бърсахте	бърсаха
пйша	пйса-	пйсах	пйса	пйса	пйсахме	пйсахте	пйсаха
чеша	чеса-	чесах	чеса	чеса	чесахме	чесахте	чесаха

The listed verbs all have consonant alternations from the postalveolar consonant “*u*” into the alveolar consonant “*c*” when forming their Past Aorist verb forms. These facts indicate that the alternations also appear in their Aorist stems. What the meaning carries out by these alternations is also grammatical. The alternation also differentiates the Aorist stem from the other stems. We are able to tell that the Present and Imperfect stems for all the listed verbs are also identical. They are *бърше*-(*bàrshē*-), *пйше*-(*pìshē*-) and *чеше*-(*chèshē*-). The difference between the three stems for these verbs is presented by the *u-c* alternation together with the Aorist thematic vowel.

– Г-Ж Alternation

Base Form	Aorist Stem	Singular			Plural		
		1 st Person	2 nd Person	3 rd Person	1 st Person	2 nd Person	3 rd Person
мога	можà-	можàх	можà	можà	можàхме	можàхте	можàха

Verb *мога*(*moga*) has the consonant alternation from the velar consonant “*z*” into the postalveolar consonant “*ж*” when forming their Past Aorist verb forms. This fact indicates that the alternation also appears in its Aorist stem, which also occurs to its Present and Imperfect stems. The difference between the three stems for *мога*(*moga*) is presented by the Aorist thematic vowel. We may presume that this “*z*” - “*ж*” alternation is historically preserved from the first palatalisation³.

2) Consonant Alternation: К-Ч

Base Form	Aorist Stem	Singular			Plural		
		1 st Person	2 nd Person	3 rd Person	1 st Person	2 nd Person	3 rd Person
пекà	пèко-/ пèче-	пèкох	пèче	пèче	пèкохме	пèкохте	пèкоха
рекà	рèко-/ рèче	рèкох	рèче	рèче	рèкохме	рèкохте	рèкоха
текà	тèко-/ тèче	тèкох	тèче	тèче	тèкохме	тèкохте	тèкоха

The listed verbs all from the 24 imperfective base verbs, which have two Aorist stems. The alternations all take place in the Aorist stem that contains the thematic vowel –*e*–. Because the velar consonant “*к*” cannot be followed by the front vowel “*e*”, therefore, it has alternated into the postalveolar consonant “*ч*”.

3) Consonant Alternation: К-Ч and Vowel Alternation: Я-Е (Yat-umlaut)

³ As mentioned previously, in the history of the Bulgarian language, the palatalisation has happened twice. The alternation of *z*, *к*, *х* into *ж*, *ч*, *ш* happened frequently in the first one.

Base Form	Aorist Stem	Singular			Plural		
		1 st Person	2 nd Person	3 rd Person	1 st Person	2 nd Person	3 rd Person
(сь)блєкà	(сь)блѣк о-/ (сь)блѣч е-	(сь)блѣк ох	(сь)блѣ че	(сь)блѣ че	(сь)блѣкох ме	(сь)блѣко хте	(сь)блѣко ха
влєкà	влѣко-/ влѣче-	влѣкох	влѣче	влѣче	влѣкохме	влѣкохте	влѣкоха
сєкà	сѣко- /сѣче-	сѣкох	сѣче	сѣче	сѣкохме	сѣкохте	сѣкоха

The listed verbs are also from the 24 imperfective base verbs, which have two Aorist stems. The alternations, too, take place in the Aorist stem that contains the thematic vowel *-e-*. According to phonetic law, when “я” is in front of a syllable containing front vowels “e” or “u”, it will alternate into “e”. Meanwhile, because the velar consonant “к” cannot be followed by the front vowel “e”, therefore, it has alternated into the postalveolar consonant “ч”.

4) Vowel Alternation: Я-Е (Yat-umlaut)

Base Form	Aorist Stem	Singular			Plural		
		1 st Person	2 nd Person	3 rd Person	1 st Person	2 nd Person	3 rd Person
(в-)лѣзà	(в-)лѣзò-/(в-)лѣзе	(в-)лѣзòх	(в-)лѣзе	(в-)лѣзе	(в-)лѣзòхме	(в-)лѣзòхте	(в-)лѣзòха

Verb *(в-)лѣзà* [*(v-)lĭaza*] is also from the 24 imperfective base verbs, which have two Aorist stems. The alternation, too, take place in the Aorist stem that contains the thematic vowel *-e-*. According to phonetic law, when “я” is in front of a syllable containing front vowels “e” or “u”, it will alternate into “e”.

5) Vowel Alternation: Е-Я

Base Form	Aorist Stem	Singular			Plural		
		1 st Person	2 nd Person	3 rd Person	1 st Person	2 nd Person	3 rd Person
пѣя	пѣ-	пѣх	пѣ	пѣ	пѣхме	пѣхте	пѣха
лѣя	лѣ-	лѣх	лѣ	лѣ	лѣхме	лѣхте	лѣха

The listed verbs all have vowel alternations from the front vowel “e” into the middle vowel “я” when forming their Past Aorist verb forms. These verbs have slightly different Aorist stems. There is no thematic vowel presents in the stems. Therefore, the alternation is taken place in their root morphemes. We are able to tell that the Present and Imperfect stems for all the listed verbs are also identical. They are *nĕe--(pĕe-)* and *lĕe--(lĕe-)*. Therefore, their root morphemes are *ne(pe)* and *le(le)*. They alternate into *ня(ria)* and *ля(lia)* for the Aorist stems. The difference between the Aorist stem and other two stems for the listed verbs is presented by the vowel alternation.

6) Consonant Alternation: Ж-З and Vowel Alternation: Е-Я

Base Form	Aorist Stem	Singular			Plural		
		1 st Person	2 nd Person	3 rd Person	1 st Person	2 nd Person	3 rd Person
рѣжа	рѣза-	рѣзах	рѣза	рѣза	рѣзахме	рѣзахте	рѣзаха

Verb *рѣжа(resha)* has the consonant alternation from postalveolar consonant “ж” into the alveolar consonant “з”, as well as the vowel alternation from the front vowel “е” into the middle vowel “я” when forming their Past Aorist verb forms. This fact indicates that the alternations also appear in its Aorist stems. What the meaning carries out by these alternations is also grammatical. The difference between the Aorist stem and other two stems for *рѣжа(resha)* is presented by the alterntaions.

8.2 Past Aorist – Second Conjugation

1) Consonant Alternation: Ж-З and Vowel Alternation: Е-Я

Base Form	Aorist Stem	Singular			Plural		
		1 st Person	2 nd Person	3 rd Person	1 st Person	2 nd Person	3 rd Person
белѣжа	белѣза-	белѣзах	белѣза	белѣза	белѣзахме	белѣзахте	белѣзаха

Verb *белѣжа(belezha)* has the consonant alternation from postalveolar consonant “ж” into the alveolar consonant “з”, as well as the vowel alternation from the front vowel “е” into the middle vowel “я” when forming their Past Aorist verb forms. This fact indicates that the alternations also appear in its Aorist stems. What the meaning carries out by these alternations is also grammatical. The difference between the Aorist stem and other two stems for *белѣжа(belezha)* is presented by the alterntaions.

8.3 Past Active Aorist Participle – First Conjugation

1) Consonant Alternation

– Ж-З Alternation

Base Form	Aorist Stem	Past Active Aorist Participle			
		Masculine	Feminine	Neuter	Plural
блѣжа	блѣза-	блѣзал	блѣзала	блѣзало	блѣзали
вѣржа	вѣрза-	вѣрзал	вѣрзала	вѣрзало	вѣрзали
кѣжа	кѣза-	кѣзал	кѣзала	кѣзало	кѣзали
лѣжа	лѣза-	лѣзал	лѣзала	лѣзало	лѣзали
мѣжа	мѣза-	мѣзал	мѣзала	мѣзало	мѣзали
нѣжа	нѣза-	нѣзал	нѣзала	нѣзало	нѣзали
харѣжа	харѣза-	харѣзал	харѣзала	харѣзало	харѣзали

The listed verbs carry out the same consonant alternations as in the Past Aorist verb forms. These alternations are occurred to their Aorist stems. (Please refer to the Past Aorist part for detailed analysis.)

– Ж-Г Alternation

Base Form	Aorist Stem	Past Active Aorist Participle			
		Masculine	Feminine	Neuter	Plural
лѣжа	лѣга-	лѣгал	лѣгала	лѣгало	лѣгали
стриѣжа	стриѣга-	стриѣгал	стриѣгала	стриѣгало	стриѣгали
стѣрѣжа	стѣрѣга-	стѣрѣгал	стѣрѣгала	стѣрѣгало	стѣрѣгали

The listed verbs carry out the same consonant alternations as in the Past Aorist verb forms. These alternations are occurred to their Aorist stems. (Please refer to the Past Aorist part for detailed analysis.)

– Ч-К Alternation

Base Form	Aorist Stem	Past Active Aorist Participle			
		Masculine	Feminine	Neuter	Plural
дѣвѣча	дѣвѣка-	дѣвѣкал	дѣвѣкала	дѣвѣкало	дѣвѣкали
мяѣча	мяѣка-	мяѣкал	мяѣкала	мяѣкало	мяѣкали
плѣча	плѣка-	плѣкал	плѣкала	плѣкало	плѣкали
смѣча	смѣка-	смѣкал	смѣкала	смѣка	смѣкали
сѣча	сѣка-	сѣкал	сѣкала	сѣкало	сѣкали
тѣпча	тѣпка-	тѣпкал	тѣпкала	тѣпкало	тѣпки

The listed verbs carry out the same consonant alternations as in the Past Aorist verb forms. These alternations are occurred to their Aorist stems. (Please refer to the Past Aorist part for detailed analysis.)

– Ш-С Alternation

Base Form	Aorist Stem	Past Active Aorist Participle			
		Masculine	Feminine	Neuter	Plural
бѣрѣша	бѣрѣса-	бѣрѣсал	бѣрѣсала	бѣрѣсало	бѣрѣсали
пѣша	пѣса-	пѣсал	пѣсала	пѣсало	пѣсали
чѣша	чѣса-	чѣсал	чѣсала	чѣсало	чѣсали

The listed verbs carry out the same consonant alternations as in the Past Aorist verb forms. These alternations are occurred to their Aorist stems. (Please refer to the Past Aorist part for detailed analysis.)

– Ж-Г Alternation

Base Form	Aorist Stem	Past Active Aorist Participle			
		Masculine	Feminine	Neuter	Plural
мѡже	мѡжѣ-	мѡгѣл	мѡгѣла	мѡгѣло	мѡгѣли

Verb *мога* (*moga*) carries out the same consonant alternation as in the Past Aorist verb forms. The alternation is occurred to its Aorist stem. (Please refer to the Past Aorist part for detailed analysis.)

2) Vowel Alternation: Я-Е (Yat-umlaut)

Base Form	Aorist Stem	Past Active Aorist Participle			
		Masculine	Feminine	Neuter	Plural
влекà	вля̀ко- /влече-	вля̀къл	вля̀кла	вля̀кло	влѐкли
секà (в-)ля̀зà	ся̀ко-/сече- (в-)ля̀зо-/(в-) лѐзе	ся̀къл (в-)ля̀зъл	ся̀кла (в-)ля̀зла	ся̀кло (в-)ля̀зло	сѐкли (в-)лѐзли

The listed verbs, as mentioned before, are from the 24 imperfective base verbs, which have two Aorist stems. When forming the Past Active Aorist Participle forms, they use the Aorist stems that have the thematic vowel –o–. However, there is an additional yat-umlaut occurs to their Plural forms. According to phonetic law, when “я” is in front of a syllable containing front vowels “e” or “u”, it will alternate into “e”.

3) Vowel Alternation: Я-Е (Yat-umlaut)

Base Form	Aorist Stem	Past Active Aorist Participle			
		Masculine	Feminine	Neuter	Plural
пѐя	пя̀-	пя̀л	пя̀ла	пя̀ло	пѐли
лѐя	ля̀-	ля̀л	ля̀ла	ля̀ло	лѐли

The listed verbs carry out the same vowel alternation in its Aorist stem when forming its Past Active Aorist Participle forms. (Please refer to the Past Aorist part for detailed analysis.) But there is an additional yat-umlaut occurs to their Plural forms. According to phonetic law, when “я” is in front of a syllable containing front vowels “e” or “u”, it will alternate into “e”.

4) Consonant Alternation: Ж-З and Vowel Alternation: Е-Я

Base Form	Aorist Stem	Past Active Aorist Participle			
		Masculine	Feminine	Neuter	Plural
рѐжа	ря̀за-	ря̀зал	ря̀зала	ря̀зало	ря̀зали

Verb *режа(resha)* carries out the same consonant and vowel alternations as in the Past Aorist verb forms. The alternations are occurred to its Aorist stem. (Please refer to the Past Aorist part for detailed analysis.)

8.4 Past Active Aorist Participle – Second Conjugation Group

1) Consonant Alternation: Ж-З and Vowel Alternation: Е-Я

Base Form	Aorist Stem	Past Active Aorist Participle			
		Masculine	Feminine	Neuter	Plural
белѐжа	беля̀за-	беля̀зал	беля̀зала	беля̀зало	беля̀зали

Verb *бележа(belezha)* carries out the same consonant and vowel alternations as in the Past Aorist verb forms. The alternations are occurred to its Aorist stem. (Please refer to the Past Aorist part for detailed analysis.)

8.5 Past Passive Participle – First Conjugation

1) Consonant Shift

– Ж-З Alternation

Base Form	Aorist Stem	Past Active Aorist Participle			
		Masculine	Feminine	Neuter	Plural
блѣжа	блѣза-	блѣзан	блѣзана	блѣзано	блѣзани
вѣржа	вѣрза-	вѣрзан	вѣрзана	вѣрзано	вѣрзани
кѣжа	кѣза-	кѣзан	кѣзана	кѣзано	кѣзани
лѣжа	лѣза-	лѣзан	лѣзана	лѣзано	лѣзани
мѣжа	мѣза-	мѣзан	мѣзана	мѣзано	мѣзани
нѣжа	нѣза-	нѣзан	нѣзана	нѣзано	нѣзани
харѣжа	харѣза-	харѣзан	харѣзана	харѣзано	харѣзани

The listed verbs carry out the same consonant alternations as in the Past Aorist and Past Active Aorist Participle verb forms. These alternations are occurred to their Aorist stems. (Please refer to the Past Aorist part for detailed analysis.)

– Ж-Г Alternation

Base Form	Aorist Stem	Past Active Aorist Participle			
		Masculine	Feminine	Neuter	Plural
лѣжа	лѣга-	лѣган	лѣгана	лѣгано	лѣгани
стрѣжа	стрѣга-	стрѣган	стрѣгана	стрѣгано	стрѣгани
стѣржа	стѣрга-	стѣрган	стѣргана	стѣргано	стѣргани

The listed verbs carry out the same consonant alternations as in the Past Aorist and Past Active Aorist Participle verb forms. These alternations are occurred to their Aorist stems. (Please refer to the Past Aorist part for detailed analysis.)

– Ч-К Alternation

Base Form	Aorist Stem	Past Active Aorist Participle			
		Masculine	Feminine	Neuter	Plural
дѣвча	дѣвка-	дѣвкан	дѣвкана	дѣвкано	дѣвкани
тъпча	тъпка-	тъпкан	тъпкана	тъпкано	тъпкани

The listed verbs carry out the same consonant alternations as in the Past Aorist and Past Active Aorist Participle verb forms. These alternations are occurred to their Aorist stems. (Please refer to the Past Aorist part for detailed analysis.)

– Ш-С Alternation

Base Form	Aorist Stem	Past Active Aorist Participle			
		Masculine	Feminine	Neuter	Plural
бѣрша	бѣрса-	бѣрсан	бѣрсана	бѣрсано	бѣрсани
пѣша	пѣса-	пѣсан	пѣсана	пѣсано	пѣсани
чѣша	чѣса-	чѣсан	чѣсана	чѣсано	чѣсани

The listed verbs carry out the same consonant alternations as in the Past Aorist and Past Active Aorist Participle verb forms. These alternations are occurred to their Aorist stems. (Please refer to the Past Aorist part for detailed analysis.)

– *К-Ч* Alternation

Base Form	Aorist Stem	Past Passive Participle			
		Masculine	Feminine	Neuter	Plural
пекà	пèко-/пèче-	пèчен	пèчена	пèчено	пèчени
рекà	рèко-/рèче	рèчен	рèчена	рèчено	рèчени
текà	тèко-/тèче	тèчен	тèчена	тèчено	тèчени

The listed verbs, as mentioned before, are from the 24 imperfective base verbs, which have two Aorist stems. When forming the Past Passive Participle forms, they use the Aorist stems that have the thematic vowel *-e-*. The alternations all take place in their *-e-* Aorist stems. (Please refer to the Past Aorist part for detailed analysis.)

2) Consonant Alternation: *Ж-З* and Vowel Alternation: *Е-Я*

Base Form	Aorist Stem	Past Passive Participle			
		Masculine	Feminine	Neuter	Plural
влекà	вляко-/влече-	влечен	влечена	влечено	влечени
секà	сяко-/сече-	сечен	сечена	сечено	сечени

The listed verbs, as mentioned before, are from the 24 imperfective base verbs, which have two Aorist stems. When forming the Past Passive Participle forms, they use the Aorist stems that have the thematic vowel *-e-*. Both the consonant and vowel alternations take place in their *-e-* Aorist stems. (Please refer to the Past Aorist part for detailed analysis.)

3) Vowel Alternation: *Я-Е* (Yat-umlaut)

Base Form	Aorist Stem	Past Passive Participle			
		Masculine	Feminine	Neuter	Plural
пèя	пjà-	пjàт	пjàта	пjàто	пèти
лèя	лjà-	лjàт	лjàта	лjàто	лèти

The listed verbs carry out the same vowel alternation in its Aorist stem when forming its Past Passive Participle forms. (Please refer to the Past Aorist part for detailed analysis.) But there is an additional yat-umlaut occurs to their Plural forms. According to phonetic law, when “я” is in front of a syllable containing front vowels “e” or “u”, it will alternate into “e”.

4) Consonant Alternation: *Ж-З* and Vowel Alternation: *Е-Я*

Base Form	Aorist Stem	Past Active Aorist Participle			
		Masculine	Feminine	Neuter	Plural
рèжа	рjàза-	рjàзан	рjàзана	рjàзано	рjàзани

Verb *режа(resha)* carries out the same consonant and vowel alternations as in the Past Aorist and Past Active Aorist Participle verb forms. The alternations are occurred to its Aorist stem. (Please refer to the Past Aorist part for detailed analysis.)

Past Passive Participle – Second Conjugation

1) Consonant Alternation: *Ж-З* and Vowel Alternation: *Е-Я*

Base Form	Stem	Past Passive Participle			
		Masculine	Feminine	Neuter	Plural
белѣжа	беляза-	белязан	белязана	белязано	белязани

Verb *бележа* (*belezha*) carries out the same consonant and vowel alternations as in the Past Aorist and Past Active Aorist Participle verb forms. The alternations are occurred to its Aorist stem. (Please refer to the Past Aorist part for detailed analysis.)

8.6 Verbal Noun – First Conjugation

1) Consonant Shift

– *Ж-З* Alternation

Base Form	Aorist Stem	Verbal Noun
блѣжа	блѣза-	блѣзана
вѣржа	вѣрза-	вѣрзана
кѣжа	кѣза-	кѣзана
лѣжа	лѣза-	лѣзана
мѣжа	мѣза-	мѣзана
нѣжа	нѣза-	нѣзана
харѣжа	харѣза-	харѣзана

The listed verbs carry out the same consonant alternations as in the Past Aorist, Past Active Aorist Participle and Past Passive Participle verb forms. These alternations are occurred to their Aorist stems. (Please refer to the Past Aorist part for detailed analysis.)

– *Ж-Г* Alternation

Base Form	Aorist Stem	Verbal Noun
лѣжа	лѣга-	лѣгана
стрѣжа	стрѣга-	стрѣгана
стѣржа	стѣрга-	стѣргана

The listed verbs carry out the same consonant alternations as in the Past Aorist, Past Active Aorist Participle and Past Passive Participle verb forms. These alternations are occurred to their Aorist stems. (Please refer to the Past Aorist part for detailed analysis.)

– *Ч-К* Alternation

Base Form	Aorist Stem	Verbal Noun
дѣвча	дѣвка-	дѣвкана
тѣпча	тѣпка-	тѣпкана

The listed verbs carry out the same consonant alternations as in the Past Aorist, Past Active Aorist Participle and Past Passive Participle verb forms. These alternations are occurred to their Aorist stems. (Please refer to the Past Aorist part for detailed analysis.)

– III-C Alternation

Base Form	Aorist Stem	Verbal Noun
бѣрша	бѣрса-	бѣрсане
пѣша	пѣса-	пѣсане
чѣша	чѣса-	чѣсане

The listed verbs carry out the same consonant alternations as in the Past Aorist, Past Active Aorist Participle and Past Passive Participle verb forms. These alternations are occurred to their Aorist stems. (Please refer to the Past Aorist part for detailed analysis.)

– K-Ч Alternation

Base Form	Aorist Stem	Verbal Noun
пекà	пèко-/пèче-	пèчене
рекà	рèко-/ рèче	рèчене
текà	тèко-/ тèче	тèчене

The listed verbs, as mentioned before, are from the 24 imperfective base verbs, which have two Aorist stems. When forming the Verbal Noun forms, they use the Aorist stems that have the thematic vowel *–e–*. The alternations all take place in their *–e–* Aorist stems. (Please refer to the Past Aorist part for detailed analysis.)

2) Consonant Alternation: Ж-З and Vowel Alternation: Е-Я

Base Form	Aorist Stem	Verbal Noun
влекà	вля̀ко-/вля̀че-	влечене
секà	ся̀ко-/ сèче-	сечене

The listed verbs, as mentioned before, are from the 24 imperfective base verbs, which have two Aorist stems. When forming the Verbal Noun forms, they use the Aorist stems that have the thematic vowel *–e–*. Both the consonant and vowel alternations take place in their *–e–* Aorist stems. (Please refer to the Past Aorist part for detailed analysis.)

3) Vowel Alternation: Я-Е (Yat-umlaut)

Base Form	Aorist Stem	Verbal Noun
пѣя	пѣя-	пѣене
лѣя	лѣя-	лѣене

The listed verbs carry out the same vowel alternation in its Aorist stem when forming its Verbal Noun forms. (Please refer to the Past Aorist part for detailed analysis.) However, unlike the other verbal forms formed from their Aorist stems, when forming the Verbal Noun forms the listed verbs need to add the thematic vowel *–e–* and the Verbal Noun ending *–не*. Hence, there is an additional yat-umlaut occurs to their Verbal Noun forms. According to phonetic law, when “я” is in front of a syllable containing front vowels “e” or “u”, it will alternate into “e”.

4) Consonant Alternation: Ж-З and Vowel Alternation: Е-Я

Base Form	Aorist Stem	Verbal Noun
рѣжа	рѣза-	рѣзане

Verb *режа(resha)* carries out the same consonant and vowel alternations as in the Past Aorist, Past Active Aorist Participle and Past Passive Participle verb forms. The alternations are occurred to its Aorist stem. (Please refer to the Past Aorist part for detailed analysis.)

8.7 Verbal Noun – Second Conjugation

1) Consonant Alternation: Ж-З and Vowel Alternation: Е-Я

2)

Base Form	Aorist Stem	Verbal Noun
белѣжа	беляза-	белязане

Verb *бележа(belezha)* carries out the same consonant and vowel alternations as in the Past Aorist, Past Active Aorist Participle and Past Passive Participle verb forms. The alternations are occurred to its Aorist stem. (Please refer to the Past Aorist part for detailed analysis.)

9 Vowel and Consonant Alternations: Imperfect Stem

9.1 Past Imperfect – First Conjugation

1) Consonant Shift

– К-Ч Alternation

Base Form	Imperfect Stem	Singular			Plural		
		1 st Person	2 nd Person	3 rd Person	1 st Person	2 nd Person	3 rd Person
пекà	печà-	печàх	печèше	печèше	печàхме	печàхте	печàха
секà	сечà-	сечàх	сечèше	сечèше	сечàхме	сечàхте	сечàха
рекà	речà-	речàх	речèше	речèше	речàхме	речàхте	речàха
текà	течà-	течàх	течèше	течèше	течàхме	течàхте	течàха
влекà	влечà-	влечàх	влечèше	влечèше	влечàхме	влечàхте	влечàха
(сь)	(сь)	(сь)	(сь)	(сь)	(сь)	(сь)	(сь)
блекà	блечà-	блечàх	блечèше	блечèше	блечàхме	блечàхте	блечàха

The listed verbs all have consonant alternations from the velar consonant “к” into the postalveolar consonant “ч” when forming their Past Imperfect verb forms. These facts indicate that the alternations also appear in their Imperfect stems. What the meaning carries out by these alternations is somewhat grammatical than phonetic. The alternation does not reveal any phonetic law but differentiates the Imperfect stem from the other stems. The difference between the Imperfect stem and other two stems for these verbs is presented by the к-ч consonant alternation together with the Imperfect thematic vowel.

– Г-Ж Alternation

Base Form	Imperfect Stem	Singular			Plural		
		1 st Person	2 nd Person	3 rd Person	1 st Person	2 nd Person	3 rd Person
мòга	мòже-	мòжех	мòжеше	мòжеше	мòжехме	мòжехте	мòжеха

Verb *мога(moga)* has the consonant alternation from the velar consonant “г” into the postalveolar consonant “ж” for its Imperfect stem “мòжè-(mòshè)-”, as well as all its Past Imperfect verb forms. What the meaning carries out by these alternations is also grammatical.

Its base root morpheme “*мог(mog)*” is ended in the velar consonant “*г*”; enable to be followed by the thematic vowel *–e–* (which is a front vowel) to form the Imperfect stem, it has to be alternated into “*ж*”. The alternant root morpheme “*мож(mozh)*” is the allomorph of its base root morpheme “*мог(mog)*”. Also, we are able to tell that the Present and Imperfect stems for *мога(moga)* are identical, because they all use the same thematic vowel *–e–*.

2) Vowel Alternation: Я-E Alternation (Yat-umlaut)

Base Form	Imperfect Stem	Singular			Plural		
		1 st Person	2 nd Person	3 rd person	1 st Person	2 nd Person	3 rd person
(в-)ляза	(в-)лèзе-	(в-)лèзех	(в-)лèзеше	(в-)лèзеше	(в-)лèзехме	(в-)лèзехте	(в-)лèзеха

Verb *(в-)ляза[(v-)lyaza]* has the vowel alternation from the middle vowel “*я*” into the front vowel “*е*” for its Imperfect stem “*(в-)лèзе-[(v-)lèze-]*”, as well as all its Past Imperfect verb forms. Its root morpheme “*(в-)ляза[(v-)lyaz]*” contains the middle vowel “*я*”. According to the phonetic law, when the yat vowel is in front of a syllable containing front vowels *e* or *u*, the yat-umlaut will take place. Therefore, enable to be followed by the thematic vowel *–e–* to form the present stem “*я*” has to be alternated into “*е*”. Also, we are able to tell that the Present and Imperfect stems for *(в-)ляза[(v-)lyaza]* are identical, because they all use the same thematic vowel *–e–*.

9.2 Present Active Participle – First Conjugation

1) Consonant Shift

– К-Ч Alternation

Base Form	Imperfect Stem	Present Active Participle			
		Masculine	Feminine	Neuter	Plural
пекà	печà-	печàщ	печàща	печàщо	печàщи
секà	сечà-	сечàщ	сечàща	сечàщо	сечàщи
рекà	речà-	речàщ	речàща	речàщо	речàщи
текà	течà-	течàщ	течàща	течàщо	течàщи
влекà	влечà-	влечàщ	влечàща	влечàщо	влечàщи
(сь) блекà	(сь) блечà-	(сь) блечàщ	(сь) блечàща	(сь) блечàщо	(сь) блечàщи

The listed verbs all have consonant alternations from the velar consonant “*к*” into the postalveolar consonant “*ч*” for their Imperfect stems. Due to the fact that the Present Active Participle forms are formed from the Imperfect stems, therefore, the alternations appear again. (Please refer to the Past Imperfect part for detailed analysis.)

– Г-Ж Alternation

Base Form	Imperfect Stem	Present Active Participle			
		Masculine	Feminine	Neuter	Plural
мòга	мòже-	мòжеш	мòжеща	мòжещо	мòжещи

Verb *мога(moga)* has the consonant alternation from the velar consonant “*г*” into the postalveolar consonant “*ж*” for its Imperfect stem “*мòжè-(mòshè)-*”. Due to the fact that the

Present Active Participle forms are formed from the Imperfect stems, therefore, the alternation appears again. (Please refer to the Past Imperfect part for detailed analysis.)

9.3 Past Active Imperfect Participle – First Conjugation

1) Consonant Shift

– К-Ч Alternation

Base Form	Imperfect Stem	Present Active Participle			
		Masculine	Feminine	Neuter	Plural
пекà	печà-	печàл	печàла	печàло	печàли
секà	сечà-	сечàл	сечàла	сечàло	сечàли
рекà	речà-	речàл	речàла	речàло	речàли
текà	течà-	течàл	течàла	течàло	течàли
влекà	влечà-	влечàл	влечàла	влечàло	влечàли
(сь) блекà	(сь) блечà-	(сь) блечàл	(сь) блечàла	(сь) блечàло	(сь) блечàли

The listed verbs all have consonant alternations from the velar consonant “к” into the postalveolar consonant “ч” for their Imperfect stems. Due to the fact that the Past Active Imperfect Participle forms are formed from the Imperfect stems, therefore, the alternations appear again. (Please refer to the Past Imperfect part for detailed analysis.)

– Г-Ж Alternation

Base Form	Imperfect Stem	Present Active Participle			
		Masculine	Feminine	Neuter	Plural
мòга	мòже-	мòжел	мòжела	мòжело	мòжели

Verb *мога(moga)* has the consonant alternation from the velar consonant “г” into the postalveolar consonant “ж” for its Imperfect stem “мòжè-(mòshè)-”. Due to the fact that the Past Active Imperfect Participle forms are formed from the Imperfect stems, therefore, the alternation appears again. (Please refer to the Past Imperfect part for detailed analysis.)

2) Vowel Alternation: Я-Е Alternation (Yat-umlaut)

Base Form	Imperfect Stem	Present Active Participle			
		Masculine	Feminine	Neuter	Plural
(в-)лjàза	(в-)лèзе-	(в-)лèзел	(в-)лèзела	(в-)лèзело	(в-)лèзели

Verb *(в-)лjàза[(v-)lyaza]* has the vowel alternation from the middle vowel “я” into the front vowel “е” for its Imperfect stem “(в-)лèзе-[(v-)lèze-]”. Due to the fact that the Past Active Imperfect Participle forms are formed from the Imperfect stems, therefore, the alternation appears again. (Please refer to the Past Imperfect part for detailed analysis.)

10 Conclusion

The dissertation examined the vowel and consonant alternations in Contemporary Bulgarian verbal system in detail, with the additional analysis of verb forms, verb stems and alternations. Hence, echoing the main theme.

The dissertation also reveals that alternations are still actively appearing in the contemporary Bulgarian language. In addition to the existed linguistic knowledge, the new established three-stem theory provides learners with a more comprehensive approach to the thorough understanding of alternation.

With sincerity, I hope my work can be recognised by the academic scholars as a readworthy reference for the learners of Bulgarian language, and further studies can be based on this piece of work.

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