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## **The Sociophonetics of Bulgarian /l/**

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**Universiteit Leiden**

# The Sociophonetics of Bulgarian /l/

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## Contemporary Bulgarian Grammar and Some Context-related Usage Features

### Съвременната българска граматика и някои характеристики на употребата ѝ в контекст

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**Abstract.** The article consists of two parts. The first part examines key grammatical phenomena in Bulgarian from a normative perspective. From a morphological perspective, these include the loss of cases in the nouns, the existence of a definite article together with its main functions, the relationship between grammatical gender and biological gender, the realization of arguments, the existence of a count form, the loss of the infinitive and its replacement with a finite form, the rich temporal system, the presence of evidential forms, etc. From a syntactic perspective, these phenomena refer to pro-drop, main agreement strategies, object doubling, etc. The second part focuses on certain tendencies in language use within real-world contexts. These indicate a gradual shift from grammatical marking to pragmatic influence. Among the affected phenomena are: subject-predicate agreement, politeness formulas, remnant case forms in some pronouns, plural forms, functions of the definite article, and reflexive pronouns.

**Абстракт.** Статията се състои от две части. Първата част разглежда основни граматически явления в българския език в нормативен аспект. От морфологична гледна точка те включват загубата на падежи в именната система, наличието на определителен член заедно с основните му функции, отношението между граматичен род и биологичен пол, реализацията на аргументите, наличието на бройна форма при съществителните имена от мъжки род, загубата на инфинитив и замяната му с лична форма, богатата темпорална система, наличието на евиденциални форми и други, а от синтактична гледна точка те включват нулевата субектност, основните съгласувателни стратегии, удвояването на допълнението и други. Втората част се фокусира върху някои тенденции при използването на езика в реална среда. Тези тенденции посочват постепенното изместване на граматическите маркери от прагматичните. Сред явленията, които са засегнати, са следните: съгласуването между подлог и сказуемо, формулите за учтивост, остатъчните падежни форми при някои местоимения, формите за множествено число, функциите на определителния член и рефлексивните местоимения.

**Keywords:** Bulgarian, grammar, social context, pragmatics

**Ключови думи:** български език, граматика, социален контекст, прагматика

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## 1. Introduction

This article first introduces some main grammatical features of Bulgarian. After that, it is demonstrated how some of these grammatical characteristics affect language in socio-communicative contexts. The language seems to be becoming more social-context-bound in some ways.

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## 1.1 Linguistic Typology of Bulgarian

Bulgarian is an Indo-European language that genealogically belongs to the Slavic language group. More precisely, it is part of the South Slavic subgroup. Thus, most of the Bulgarian vocabulary is of Slavic origin. However, due to historical and geographical reasons, there are also words borrowed from Turkish, Greek, Latin, etc. According to Boyadjiev (1986), the home lexicon is about 80–90% of the Bulgarian vocabulary but we should take into account the fact that the changes in lexicon are dynamic in time span, and recently more loans and patterns have been coming from English.

Bulgarian is also called a “classic and exotic” language (Ivanchev, 1998). It is classic, because it is the inheritor of the first written language of the Slavs: Old Bulgarian (other terms: ‘Church Slavic’, ‘Old Slavic’), and it is exotic, because it differs in some aspects from the synthetic Slavic language family due to the influence of its geographically close or neighbouring languages. For example, Bulgarian has lost its noun declension and its infinitive. It developed a rich verbal tense system (9 tenses) including the inherited aorist and imperfect. It possesses a post-positioned definite article which graphically is part of the word but de facto is a phrasal affix.

## 1.2 Areal-Linguistic Typology

Bulgarian is part of the so-called “Balkan Sprachbund”. More information about Bulgarian in the Balkan Sprachbund can be found in Asenova (1989). In areal linguistics the term “Sprachbund” refers to languages that are geographically close to each other. In spite of the different perspectives on the participating languages (Bulgarian, Greek, Albanian, Romanian according to Trubetzkoy, 1928, p. 18), they show some similar linguistic features. For example, they have a similar articulation base. Also, they share identical vocal systems with dynamic stress as well as similar consonant systems. There exist the so-called “common Balkan lexica”, which have been inherited from the various Balkan substrates, such as Greek, Turkish, Latin, Slavic, and other languages. There are also some common phraseological units and derivation models.

However, most similarities are found within the area of morphosyntax. Most of them are part of the general tendency towards developing an analytical grammar system. These are:

- doubling/reduplication of the direct and indirect object (for example *Hezo zo izbaxa* ‘Him-LONG.ACC.MASC.SG him-SHORT.ACC.MASC.SG chose-they’ He was chosen)
- the availability of a postpositional definite article (Bulgarian, Romanian, and Albanian) – for example *лято̀то* ‘summer-the’ the summer
- similar evolvement of the verbal infinitive into an analytical construction (*да каже* ‘to say-PERF.PRES’ to say), etc.

A more detailed outline follows in the text below. A more thorough description of Bulgarian – also from a diachronic perspective – can be found in Osenova (2011).

## 2. The Grammar Specifics of Contemporary Bulgarian

Here I present some of the main specifics of contemporary Bulgarian grammar. This means that a focused description is presented of contemporary Bulgarian morphology and syntax. For the sake of clarity, I outline these language levels separately but in fact what I mean by Bulgarian grammar is the morphosyntax of Bulgarian.

### 2.1 Morphology

Contemporary Bulgarian (on a par with Macedonian) is a predominantly analytic language in contrast to the other Slavic languages that are mainly synthetic. But it is also an inflectional language similar to all other Slavic languages. Historically, its development (lexicon and grammar) has been influenced to a great extent by Greek and Turkish. Thus, some distinctive morphological features seem to make Bulgarian more similar to the Balkan languages and to contrast it with the Slavic family as a whole.

Traditionally, Bulgarian has a ten-part-of-speech system although various attempts have been made during the years to change this system by introducing other members or removing some, also by making different partitions among current parts-of-speech. The ten traditional parts-of-speech are: noun, adjective, adverb, pronoun, numeral, verb, preposition, conjunction, particle and interjection.

Concerning the nominal system, Bulgarian has lost its case declension types. The weakening of synthetism (including cases) dates back from 12<sup>th</sup> to 14<sup>th</sup> century AD. Only the vocative form still exists, but it is not marked

on all the nouns that function as vocatives. For example, the feminine noun *майка*, ‘mother’ changes its ending from *-a* to *-o* in its vocative form – *майко*, ‘mother’-*VOG*. At the same time, the masculine noun *чичо*, ‘uncle’ does not change its form *-o* in vocative. More systematically, a reduced set of case forms are preserved in some types of pronouns. The personal pronouns have a nominative, an accusative and a dative case (*аз* ‘I-NOM’; *мен* ‘me-LONG.ACC’ and *ме* ‘me-SHORT.ACC’, *на мен* ‘to me-LONG.DAT’ and *ми* ‘me-SHORT.DAT’). The interrogative, indefinite, collective, negative and relative pronouns keep the synthetic accusative and the analytic dative forms in masculine. These hold for all person referents, but in colloquial speech mostly the nominative forms are in use (see section 3.2). Thus, here a further process of analytism is going on. Compare the accusative-case-marked example of the direct object *Кого видя?* ‘Whom-ACC see-YOU?’ ‘Whom did you see?’ with the nominative-case-marked one *Кой видя?* ‘Who-NOM see-YOU?’ ‘Who did you see?’.

In contrast to other Slavic languages, Bulgarian has a definite article, which is realized as a postpositioned morpheme within the word (for example, *мъжът* ‘man-the’ the man; *жената* ‘woman-the’ the woman; *детето* ‘child-the’ the child). However, the definite article is in fact a phrasal affix and appears as a marker on the leftmost nominal within the phrase. For example, *високият жълт стол* ‘tall-the yellow chair’ the tall yellow chair.

Nominals distinguish between masculine, feminine and neuter, and between singular and plural. Gender in Bulgarian is mainly grammatical. For the nouns, gender is a classification category. It has a syntactic rather than a morphological nature since the ending is not always defining the gender type. This is a remnant from the lost declension system. For example, the noun *маса* ‘table’ with an ending *-a* is feminine, but the noun *песен* ‘song’ that has a zero ending is also feminine. Another example is the masculine noun *мъж* ‘man’ that has a zero ending, but the noun *дядо* ‘grandfather’ that has an ending *-o* is also masculine. There are various cases of asymmetry between the grammatical gender and the biological one like the following: the noun is masculine but can refer also to females (*министър* ‘minister-MASC’ minister; *летец* ‘pilot-MASC’ pilot); the noun is feminine but can refer also to males (*жертва* ‘victim-FEM’ victim); the noun is neuter but can refer to both – males and females (*ченге* ‘cop-NEUT’ cop). The main semantic dichotomy in Bulgarian that is reflected in the grammar is person vs. non-person rather than animate vs. inanimate.

The plural number has a variant, which is called ‘count form’ and is a remnant from the Old Slavic dual form. Nowadays this dual form is preserved in Slovene. However, in Bulgarian the count form is required as a marker of masculine nouns for non-persons when used after countable numerals and after some pronouns for quantity. For example, in the phrase *десет журналисти* ‘ten journalists-MASC.PL’ ten journalists, the common plural form is used with an ending *-и* ‘i’. However, in the following phrases: *десет стола* ‘ten chairs-COUNT.MASC.PL’ ten chairs, and *десет лъва* ‘ten lions-COUNT.MASC.PL’, ten lions, the special plural count form is used with an ending *-a*. Thus, the count form is dependent and cannot be used without the required numeral or quantity element while the common plural form is independent in its usage.

The gender in adjectives and adjective-like parts-of-speech depends on the nominal they modify. In plural there is no gender marker since the form is identical for all genders (*хубав* ‘pretty-MASC.SG’, *хубава* ‘pretty-FEM.SG’, *хубаво* ‘pretty-NEUT.SG’, *хубави* ‘pretty-PL’).

In Bulgarian there exists a rich group of pronoun types, namely ten, which is a Slavic feature. Some of the pronouns were mentioned above. For a systematic description of Bulgarian pronouns see Nitsolova (1986).

Concerning the verbal system, Bulgarian is a morphologically rich language. On average, one verb has around 50 synthetic forms. When analytic forms are added, the number of forms becomes more than 1600. Bulgarian lacks an infinitive. It was substituted by an analytical construction formed by the particle *да* ‘to’ and the finite form of the verb in first person, singular, present tense (*да пиша* ‘to write-I.SG.PRES’ to write).

As mentioned above, the temporal system of Bulgarian is very rich in contrast to the synthetic Slavic languages. Bulgarian has inherited the six tenses from Old Bulgarian and later added three more (futurum, futurum preteriti and futurum exactum preteriti). For comparison, in the synthetic Slavic languages the tenses are three. Thus, Bulgarian has nine tenses in the indicative mood (present, aorist, imperfect, perfect, plusquamperfect, futurum, futurum preteriti, futurum exactum, futurum exactum preteriti). Three of the tenses are synthetic (present, aorist, imperfect) while the other six are analytic. Present tense has only one form but since it is the less marked tense, it has a broader spectrum of usages. Contrastively, the ninth tense – futurum exactum preteriti – is the most marked tense and thus has an extremely limited usage; ‘most marked tense’ means that it has a big number of grammatical meanings such as markers of past (*-x*, ‘-h’), future (*-ш*, ‘-sht’) and of result – past participle (*-л*, ‘-l’): *щях да съм дал* ‘would-I to am given’ I would have given).

Bulgarian has three moods – indicative, imperative and conditional. The imperative is formed synthetically (*Взemi книгата!* ‘take-IMPER.2PERS.SG book-the’ Take the book!) while the conditional – analytically (*Би ли взел книгата?* ‘Would li.INTERROG.PART taken-MASC.SG book-the?’ Would you take the book?). There are also views according to which there exist periphrastic (analytic) forms of imperative for third person: *нека да отида там* ‘let to go-I there’ Let me go there. But here I follow the ideas in Nitsolova (2008) where such constructions are analysed as modal ones rather than imperative mood.

Concerning the category of voice, traditionally the grammars distinguish between two voices – active and passive. The active voice does not have a special marking, while the passive one has two ways of creation. The first one is formed with auxiliaries and the passive participle (*Книгата беше прочетена от Иван* ‘Book-the was read from Ivan’ The book was read by Ivan). The second one is formed with the reflexive particle *се* ‘se’ and the respective tense (*Вечерята се сервираше винаги в 18.00 ч.* ‘Dinner-the se-REFL was-serving always in 18.00 o’clock’ The dinner was always served at 6 pm). The second way of forming passive is very ambiguous and not always easy to distinguish since the reflexive has also other grammatical meanings. Otherwise, the participle-based forming is typical for past tenses, while the reflexive-based one – for present and future tenses. In addition to the active-passive voice model, there are also models that consider three or four voices. The three-voice model includes also the reflexive one while the four-voice model includes in addition the impersonal voice (see more in Nitsolova, 2008).

On a par with other Slavic languages, Bulgarian has the category of lexical aspect. Most of the verbs form perfective/imperfective pairs (*събера – събирам* ‘pick up – pick’). Verbs that come mostly from English are in dual aspect which means that the same form can serve as an imperfective or perfective form depending on the context. For example, *доминирам* ‘dominate-I’ to dominate. At some point the language grammar might force these to form a pair through the addition of an imperfective affix *в* ‘v’ (*доминирам*) but at the moment it is just a tendency with potential.

Another specific feature of the verbal system is the grammaticalization of the “evidential” category (this term goes back to Jakobson, 1957). According to some theories the emergence of evidential forms in Bulgarian is influenced by the Turkish morpheme *-miş* which signals that the speaker has not evidenced the event. Since in contrast to Turkish being an agglutinative language, Bulgarian is an inflectional one, it developed a whole paradigm for various types of evidential categories (indicative, renarrative, conclusive, dubitative). Thus, Bulgarian morphologically expresses four types of evidentials with respect to the speaker: indicative that coincides with the nine tenses (witnessed events), renarrative (not-witnessed events for which the speaker’s knowledge comes from another source), conclusive (not-witnessed but reconstructed by the speaker event on the basis of some available evidence) and dubitative forms (not-witnessed events for which the knowledge comes from another source like in the renarrative but with added doubts by the speaker about the truthfulness of the information). For more details see Nitsolova (2003). In Bulgarian there are also forms for a category close to evidentials called ‘admirative’ which expresses the surprise of the speaker about an event they did not expect (Aleksova, 2003, 2023).

## 2.2 Syntax

Bulgarian is an SVO (Subject-Verb-Object) language. However, it also has a relatively free word order. Bulgarian is a null subject (pro-drop) language. This means that the explication of the pronoun subject is not obligatory due to the rich verb inflection (*Идвам* ‘Come-I’ I am coming). The other Slavic languages are pro-drop languages as well. There is grammatical agreement in number and/or gender between the subject and the predicate as well as within the nominal group (*Тя е разбрала*, ‘She-FEM.SG is understood-FEM.SG’ She has understood; *непослушно дете*, ‘naughty-NEUT child-NEUT’ a naughty child). Bulgarian can also have unexpressed direct and indirect objects. Thus, according to Pustejovsky’s hierarchy of arguments (Pustejovsky, 1998) Bulgarian seems to prefer default arguments (arguments that can remain unexpressed in contexts) in comparison to true ones (that cannot remain unexpressed) and shadow ones (that are contained in the lexical meaning of the verb). An example of a default argument is the direct object *вестник* ‘newspaper’ in the following sentence: *Чета вестник* ‘read-I newspaper’ I am reading a newspaper, since it can be left unexpressed in *Чета* ‘read-I’ I am reading. An example of a true argument is the following sentence: *Изядох сандвича* ‘ate up-I sandwich-the’ I ate the whole sandwich, since the sandwich cannot be left unexpressed *\*Изядох* ‘ate up-I’ \*I ate up. An example of a shadow argument is the following one: *Ритам топката (с крак)* ‘kick ball-the (with a leg)’ I kick the ball, where ‘leg’ is unexpressed and its explication would be redundant since its meaning is already realized in the lexical semantics of the predicate.

Another specific syntactic feature, which has a Balkan origin, is the doubling/reduplication of the personal pronouns. The long accusative and dative personal pronouns can be reduplicated by their short counterparts: *Него го видяха* ‘Him-LONG.PERS.ACC him-SHORT.PERS.ACC saw-they’ They saw him. The usage of this reduplication depends on the information structure of the sentence where the speaker or the producer of the utterance/text can choose a strategy on how to present the known information (topic) or the new one (focus). The long forms of pronouns can express both types of information – topic and focus – while the short ones which are clitics, can only join either the topic or the focus phrases. In some cases, the doubling is obligatory and is required by the grammar (*Мене ме досмеша* ‘Me.LONG.PERS.ACC me.SHORT.PERS.ACC start-to-be-funny’ I found it funny). While this phrase remains grammatical with the usage of the short pronoun form only (*Досмеша ме*

‘start-to-be-funny me.SHORT.PERS.ACC’ I found it funny), it is ungrammatical with the non-doubled long pronoun form (\**Досмеши мене* ‘start-to-be-funny me.LONG.PERS.ACC’ I found it funny).

### 3. Grammar in the Context of its Usage

Let us see how some of the previously presented grammatical specifics behave in social context. As became clear in the above sections, Bulgarian is a highly grammatical language with a rich morphology that also influences syntax (for example, the availability of a subject pro-drop in sentences). At the same time, in recent years some tendencies can be observed that semantics and discourse aspects prevail over grammar in a number of cases. Also, some of the codified grammar phenomena are already not so stable. Let us delve into some of these socially-bound developments.

#### 3.1 Agreement

In Bulgarian, agreement is predominantly grammatical. This fact pertains between a modifier and a nominal (*хубава жена* ‘pretty-FEM.SG woman-FEM.SG’ a pretty woman) or in a predicative use of a modifier (*Жената е хубава* ‘Woman-the-FEM.SG is pretty-FEM.SG’, The woman is pretty). However, when the nominal in a subject position refers to a person, the predicate or coreferential agreement now more often respects the biological instead of grammatical gender in cases where the masculine form is still more prestigious than the feminine one. This holds especially for social positions with high societal impact – mayors, presidents, prime ministers, ministers, etc. For example, compare the semantic (a) and coreferential (b) agreement to the grammatical (c) one in the following example where the referent is a woman:

- a) *Кметът на София била поканена за събитието* ‘Mayor-the.MASC.SG of Sofia was-FEM.SG.EVIDENTIAL invited-FEM.SG for event-the’ The mayor of Sofia was invited at the event.
- b) *Кметът на София е тук. Тя поздрави присъстващите.* ‘Mayor-the-MASC.SG of Sofia is here. She greeted the audience’ The mayor of Sofia is here. She greeted the audience.
- c) *Кметът на София беше поканен на събитието* ‘Mayor-the.MASC.SG of Sofia was-invited-MASC.SG at event-the’ The mayor of Sofia was invited at the event.

In a) the grammatical agreement between the subject and the predicate has been violated in favor of the semantic agreement that respects the fact that the mayor is female. In b) the semantic agreement is also followed but in a coreference chain where the personal pronoun ‘she’ shows the gender-switching. Example b) sounds more socially acceptable than a). In c) the grammatical agreement has been respected but it still sounds strange because the mayor is female. One good strategy to apply here would be to add the family name of the mayor. In most cases it would solve the agreement problem. For example, *Кметът (на София) Иванова беше поканена на събитието* ‘Mayor-the-MASC.SG (of Sofia) Ivanova-FEM.SG was-SG invited-FEM.SG at the event’ The mayor (of Sofia) was invited at the event.

Another case is the agreement in the formulas of politeness. In Bulgarian there are two ways of expressing politeness with respect to subject-verb agreement. One is grammatically plural only. It has plural agreement irrespectively of the biological gender of the person. It is required when a past participle is used in the predicate. For example, *Бихте ли ми помогнали?* ‘Would-PL li-Interrogative.Part me-DAT helped-you?’ Would you help me? The other is a model that respects the biological gender. In this pattern a passive participle is used. There the subject and the auxiliary have plural forms while the passive participle in the predicate is singular, and in feminine or masculine respectively. For example, *Вие сте поканена* ‘You-PL are-PL invited-FEM.SG’ You are invited vs. *Вие сте поканен* ‘You-PL are-PL invited-MASC.SG’ You are invited. This grammatical norm has often been violated by native speakers in the way that the grammatical pattern started to follow the semantic model by analogy. Also, in other Slavic languages the gender-oriented pattern prevails. The availability of two strategies with the same pragmatic function seems confusing to natives. The grammatical model works successfully only in cases when the gender of the recipient in the communication is irrelevant (for example, in cases when the speaker addresses a group of people or the polite formula lacks a gender-bearing participle).

#### 3.2 Cases

As mentioned above, Bulgarian lacks cases in its nominal system. However, there are case remnants in some types of pronouns. Thus, the personal pronouns have three stable cases: nominative, accusative and dative forms. Accusative and dative ones have two forms – long and short. For example, *аз* ‘I-NOM.SG’, *мен* ‘me-

LONG.ACC.SG' and *ме* 'me-SHORT.ACC.SG', *на мен* 'to me-LONG.DAT.SG' and *ми* 'me-SHORT.DAT.SG'.

These cases were preserved also in the masculine forms of the interrogative, indefinite, negative and collective pronouns. However, the accusative and dative forms have become unstable in recent years. In all these types of pronouns long dative forms have been replaced by the preposition *на* 'na' plus the accusative form. The cases were almost completely lost in the collective pronouns. For example, the used form is the nominative one *Виждам всеки оттук* 'See-I everybody-NOM.SG from-here' I see everybody from here, instead of the accusative one *Виждам всекиго оттук* 'See-I everybody-ACC.SG from-here'. Corpus research of mine in the Bulgarian part of the ParlaMint Corpus of parliamentary debates ([https://www.clarin.si/ske/#dashboard?corpname=parlamint40\\_bg](https://www.clarin.si/ske/#dashboard?corpname=parlamint40_bg)) showed that the cases are kept more active by the interrogative pronouns. For example, *Кой идва?* 'Who-NOM.SG comes' Who is coming? vs. *Кого видя?* 'Whom see-you?' Whom-ACC.SG did you see? vs. *На кого каза?* 'To whom-DAT.SG said-you?' Whom did you say this to? The accusative and dative forms are not used so often within the indefinite and negative pronouns. Thus, the tendency of analytism has been spreading steadily over the years affecting also some types of pronouns.

### 3.3 The Count Form

Let us recall that in Bulgarian there operates a special form for non-person nouns in masculine. It is the so-called count form. This form comes after numerals and some pronouns. It is a dependent form. For example, *три стола* 'three chairs-COUNT' or *два льва* 'two lions-COUNT'. When the noun refers to a person in masculine, then the plural form is used. For example, *десет студенти* 'ten students-PL'. One problem arises when the lexeme can refer to persons and non-persons. In such cases the usage depends solely on the context. For example, in a chess game the noun that refers to a non-person figure of *цар* ('king') has a count form *два царя* ('two kings') while with person referents it allows only plural form *десет царе* ('ten kings'). Another challenge comes from quantifying personages from the Bible, mythology, fiction, etc. For example, if we consider angels and devils that in Bulgarian are masculine nouns more person-like, we would use the plural, but if we view them as non-person creatures, then we should use the count form.

Lately this usage of two forms for the same grammatical meaning of plurality seems to have become unstable. The processes go into the both directions, namely putting a count form ending for persons and a plural ending for non-persons. This mixing shows that the forms are in a competition and are slowly losing their distinctive features thus replacing each other against the existing grammatical norm.

### 3.4 Reflexives

In our language the reflexive personal and possessive pronouns are used for ensuring the coreference with the subject of the predicate. Both types of reflexives do not have features like person and gender. The long reflexive possessive has a grammatical number while the reflexive personal does not. However, the reflexive personal has accusative and dative forms. Both reflexives have long and short forms. For example, *Аз харесвам себе си* 'I like REFL.PERS.LONG' I like myself and *Аз взех чантата си* 'I took bag-the REFL.POSS.SHORT' I took my bag. However, in third person the usage of reflexives is crucial since it ensures a non-ambiguous reading by co-referencing the subject. For example, *Той взе палтото си* 'He took coat-the REFL.POSS.SHORT' He took his own coat (the referent is the same) vs. *Той взе палтото му* 'He took coat-the his-POSS.SHORT.3PERS.SG' He took his coat (the referents might be two different ones). This is where the violation of norms occurs. There is a tendency to use the personal and possessive pronouns instead of the reflexives. Thus, the disambiguation of whether the coat from the above example belongs to the subject or to a third party relies entirely on the context.

## 4. Conclusion

Bulgarian is a highly grammatical language – as can be seen from the synopsis on its morphology and syntax, as presented above. However, the latest tendencies (as shown in the context usage section) are that the grammar is becoming more and more context-bound, i.e. depending on the situational rather than morphosyntactic norms, as well as on world knowledge. The formal grammar markings are getting suppressed thus giving the power of disambiguation to the discourse. This happens in various cases like the following: with the subject-predicate agreement where the noun is in one grammatical gender but the referent is in the opposite biological one; with the avoidance of using the reflexive pronouns; with the destabilization of the category of case in non-personal pronouns; with the confusion between the common plural form and count form in masculine nouns for persons and non-persons.

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## Sociolinguistic Challenges in Characterizing Bulgaria's 21st Century Language Situation

### Социолингвистични предизвикателства при характеризиране на езиковата ситуация в България през XXI век

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**Abstract.** The contemporary language situation in Bulgaria is shaped by a complex interplay between global historical developments and internal social dynamics. According to Bulgarian linguists, it is defined as endoglossic, meaning it comprises all territorial and social varieties of the Bulgarian language, including the official literary standard. This status is affirmed by the Bulgarian Constitution, which declares Bulgarian as the official language. However, the actual language situation is more complex and unbalanced due to functional inequalities among language variants. Dialects play an important role, differing mainly in phonetics and vocabulary, without hindering mutual understanding. Urbanization and migration have led to the emergence of interdialectal formations, where the literary standard remains the dominant model. Language attitudes are influenced by globalization and new media, with social networks becoming a space for linguistic innovation. Among Bulgarians abroad, language dynamics are also notable—from preserving regional dialects to developing bilingualism in second-generation immigrants. All these factors contribute to a dynamic, diverse, and multilayered linguistic landscape in modern Bulgaria.

**Абстракт.** Съвременната езикова ситуация в България се определя от сложната взаимовръзка между глобални исторически процеси и вътрешни социални динамики. Според български лингвисти, тя може да бъде определена като ендоглосна, т.е. изградена от всички варианти на българския език, включително държавния книжовен стандарт. Конституцията на Република България потвърждава това чрез статута на българския като официален език. Въпреки това реалната езиковата картина е доста по-сложна и небалансирана. Това е така заради функционалните различия между различните езикови варианти. Диалектите играят важна роля в изграждането на езиковата ситуация в съвременна България. Те се различават основно на фонетично и лексикално равнище, но няма особени трудности българите от различни диалектни области да се разбират помежду си. Урбанизацията и миграцията водят до интердиалектни формации, при които книжовният език е следван като унифициращ езиков стандарт. Езиковите нагласи в обществото се влияят от глобализацията и новите медии, като социалните мрежи се превръщат в пространство за езикови иновации. Сред българите в чужбина също се наблюдават интересни процеси – от поддържане на териториални диалекти до формиране на билингвизъм у второто поколение. Всички тези фактори оформят динамична, разнообразна и многопластова езикова ситуация в съвременна България.

**Keywords:** language situation, contemporary Bulgarian

**Ключови думи:** езикова ситуация, съвременен български език

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## 1. Describing a Language Situation

It is challenging to systematically describe the characteristics of any country's language situation. It is quite possible for a language to be revived and to begin its development from the very beginning and in a different direction. Therefore, the diachronic description of a linguistic situation is a more extended process than the tracking of its individual manifestations over time. It is necessary that each 'snapshot' of the language situation

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at a given moment be diligently arranged in the album of the history of the language. Thus, the greater the number of such photos, the more different their compositions and colours, the richer, more historically reliable, and detailed this album of the language situation becomes.

The linguistic situation presented here is yet another of the many different snapshots of a moment in the historical development of the Bulgarian language during the first decades of the 21st century. We aim to include the main characteristics of the Bulgarian linguistic situation in this contemporary snapshot of the Bulgarian language. They will be presented from the perspective of the historical moment in which they are examined.

## 2. Descriptive Perspective

Krasimira Aleksova (Aleksova, 2016, p. 254) summarizes the work of Bulgarian linguists on the development of the theoretical framework used to describe the language situation in Bulgaria. She presents it in a four-dimensional model, which reveals:

1. Data on the number, type, and features of languages (when the language situation is multilingual) and dialects on the one hand, and on the other hand, the individuals who use them in the various communicative situations of the societies to which they belong.
2. The theoretical framework also includes the consideration of the forms of existence of languages and their functioning in the individual communities that make up national society. Important details that more fully present the linguistic picture are the descriptions of the interactions, hierarchies and stratifications of the language formations.
3. Another dimension involving the synchronous presentation of a given language situation is the public attitudes towards the state of the language and its forms of existence according to the members of each individual society.
4. Last but not least, studies of political influences in the planning and management of language processes provide important details about the language situation.

## 3. Describing the Bulgarian Language Situation

The language situation in Bulgaria is directly dependent on both global historical and social processes, and the processes in the micro-societies that constitute Bulgarian society. It does not differ notably from the language situations of other countries and represents a collection of the many language situations in all small and large social groups that make up Bulgarian society.

Mihail Videnov stated the following: “The present-day Bulgarian language situation has been elaborately studied from a modern sociolinguistic point of view through the investigation of the distribution of language varieties in Bulgarian towns and cities” (Videnov, 1999, p. 13). Bulgarian linguists share the opinion that the contemporary official language situation in Bulgaria should be defined according to Nikolski's terminology as ‘endoglossic’ (Nikolski, 1976), i.e., as formed by all territorial and social variants of the Bulgarian language, as well as by the state written standard (Videnov, 2000, p. 203). This fact is confirmed by the Constitution of the Republic of Bulgaria, according to which “The official language in the republic is Bulgarian” (Article 3). The state language standard — developed, planned, and managed with the participation of the state institution — is referred to as the ‘literary language’ by the Bulgarian public and by all those wishing to learn Bulgarian as a foreign language. Its existence and historical development can be traced back to the Middle Ages, which gives grounds for Bulgarians to define the Bulgarian language as the main and most important feature of the national unification of Bulgaria. The Bulgarian language had its own writing system codified through the Cyrillic alphabet already in the Middle Ages (9th century). This fact provides additional perspectives to define the processes of the development of the language. They are described in detail in a historical context as well as from the viewpoint of their current language situation.

The evolution of the Bulgarian language largely reflects the dynamics of historical, political, demographic, and economic processes in Bulgarian society. On that account, the short definition of an ‘endoglossic language situation’ mentioned above should be discussed in detail in order to reveal the actual language situation in Bulgaria. It appears to be extremely dynamic, much more complex, and strongly influenced by the sociolinguistic factors listed above. Due to the uneven distribution of the variants of the Bulgarian language in the spheres of communication and because of their functional inequality, the definition of the Bulgarian language situation should be supplemented by qualifying it as ‘unbalanced’ (again according to Nikolski's terminology) (Aleksova, 2015).

Global historical processes have had a particularly strong influence on the formation and development of our literary language as a state language standard. However, they are also the main factors that have influenced the preservation of the territorial dialects of the Bulgarian language. Today, they are among the main primary language variants in the idiolect profile of every Bulgarian. The modern dialect map of the Bulgarian language presents the main dialect divisions, according to which two large sets of dialects (Eastern and Western) are clearly distinguished. The major difference between them is the reflexes of the common Old Bulgarian ‘jat vowel’, which is /e/ in the Western dialectal region, and /ja/ in the Eastern one (Videnov, 1999, p. 19; Angelov, 2006). The majority of Bulgarian citizens can easily recognize the dialectal background of their partner in the communication process by certain distinct phonetic and lexical features. However, the fact is that the dialect variants of the Bulgarian language differ mainly in phonetic, accentual and lexical features, and there are no particular differences in terms of grammar. This is what enables those who speak different dialects of Bulgarian not to experience insurmountable difficulties in communicating with each other, to perceive the state language standard as an absolute norm and to try to adhere to it when communicative situations require its use. The literary-colloquial form of the Bulgarian language is the norm in the structures of the state administration, in schools, universities, and the national media. Every Bulgarian citizen strives to the highest degree to conform their idiolect features to the literary Bulgarian language when they are in a communicative situation with higher-ranking individuals in the social hierarchy, with strangers, and when preparing administrative documentation.

## 4. The Importance of Variants of Bulgarian

The 50 territorial dialects of Bulgarian have been described and studied in the smallest details and marked on the map of Bulgarian dialects in the Bulgarian Dialect Atlas, as Videnov summarised them in “four volumes to cover the four parts of modern Bulgaria within its present-day boundaries and a compendious fifth volume” (Videnov, 1999, p. 19) in the second half of the 20th century. However, their vitality and their role as a first language for many of their speakers are just one of the significant aspects of the contemporary linguistic situation in Bulgaria. The 1960s are considered to be the peak of a period of increased urbanization for the Bulgarian social picture. Cities were growing, and rural areas were depopulating. This socio-historical factor has had a strong influence on the linguistic picture in the country. The processes of integration and accommodation of territorial dialects from all possible dialect areas of the Bulgarian language, which began in the cities, became extremely intense and dynamic. This complex dynamic of urban speech leads to the formation of the so-called inter-dialectal formations of the Bulgarian language in Bulgarian sociolinguistics. These formations, according to Mihail Videnov, are complex variants of the Bulgarian language, in which the linguistic features of the local dialect are supplemented with markers from other – neighbouring or prestigious dialects (for example, the inter-dialect of the capital), spoken by specific social groups (Videnov, 1999, pp. 21–22). Often, urban inter-dialects also contain idiolect features from the speech of the leaders of the social groups that make up the urban demographic. This phenomenon is interesting but difficult to trace and can be studied within the theoretical framework of the Theory of Language Management, since such community leaders become language managers, unconsciously carrying out simple language management (Nekvapil, 2015).

However, the construction of the language formations, named ‘interdialects’ by Videnov (1999, pp. 21–22), does not stop at the level of the quantitative and qualitative accumulation of dialectal and sociolectal features. The factor that has played a decisive role in unifying and shaping the inter-dialects of the Bulgarian language is the state language standard, which since its creation and throughout all the historical periods of its existence has remained the variant of the Bulgarian language with the highest prestige. This is because of the strong influence of language policy on the part of the state institutions — the educational and academic system, the state administration, and the electronic and print media. Precisely because of their adherence to the language models set by the most prestigious authorities, the inhabitants of every major Bulgarian city are sure that they speak ‘the most correct Bulgarian’, which is the reason for many anecdotal disputes on the topic where in Bulgaria the most correct language is spoken, and by whom specifically.

## 5. Attitudes towards Lexical Change

It is the attitude towards the language and its features on the part of its speakers that constitutes another important aspect of the language situation. By describing and measuring the attitudes towards the language markers manifested in the speech of certain social groups, the hierarchy among the variants of the Bulgarian language is laid bare. In her study on language attitudes, Aleksova (2021) traces the attitudes of Bulgarians from large urban centers and the capital in comparison with the attitudes of Bulgarians from the countryside. According to the

results obtained, the globalization processes of the 21st century have a two-way influence on the attitude towards linguistic changes – mainly the introduction of Anglicisms into Bulgarian. On the one hand, the author observes pride associated with the denial of the introduction of foreign vocabulary, but on the other hand, the real attitude towards this process of internationalization is rather liberal. Such an attitude is demonstrated both by Bulgarians living in the capital city and Bulgarians from the countryside.

## 6. Bilingual Communities

Bilingual communities are also an important feature of the contemporary linguistic situation in Bulgaria. A significant proportion of Bulgarian citizens live in compact minority communities. These include the Turkish, Roma, Jewish, and Armenian communities. In these communities, the linguistic situation is generally perceived as bilingual, since their members speak Bulgarian, but the main language systems for communication between them are vernaculars of their ethnic language. The community of Bulgarian inhabitants of the northwestern part of Bulgaria, who speak Bulgarian and Vlach dialects, can also be included. These are strongly influenced by the Bulgarian dialects of the Romanian language (Marinov, 2024, p. 57). A detailed examination of the real linguistic situation in these regions and communities, however, presents a much different picture than the simplified bilingual one. Members of minority communities actually speak variants – dialect forms of their Bulgarian and ethnic languages. This means that in these communities the bilingualism is also accompanied by diglossia, which creates the prerequisites for describing the linguistic situation as exoglossic and unbalanced according to the terminology of Schweitzer and Nikolsky (Schweitzer & Nikolsky, 1978). Marinov (Marinov, 2024) confirms the dominant diglossic situation in several settlements of Northwestern Bulgaria, by examining not only the linguistic features of the variants of the language systems that Northwestern Bulgarians use, but also by tracking the changes in their attitudes towards them over a period of 20 years (Marinov, 2024).

## 7. Effects of Internet

An important aspect of the language situation in Bulgaria today is the sociolectal influences of younger Bulgarians – especially in social media. Since globalization is most clearly manifested in the Internet space, many Bulgarians express themselves verbally in ways that reflect trends set by popular vloggers. In this social environment, it can be said that Bulgarian vloggers who are popular among Bulgarian Internet users, follow trends, both in their behavior and at the linguistic level, set by world-famous vloggers. Thus, they transfer these trends to their speech expressions in social media. This speech behavior and mainly its linguistic features are easily perceived by social media users throughout the territory of Bulgaria. They, in turn, follow it and reproduce it in their social contacts offline. The accessibility and popularity of social media, especially in the last 10 years, have led to the introduction of universal linguistic features into the speech of Bulgarians, and this is another detail of the contemporary Bulgarian linguistic picture.

## 8. Bulgarian Speakers Living Abroad

Another important aspect of the contemporary Bulgarian linguistic situation is the condition of Bulgarian in the Bulgarian communities living outside the borders of Bulgaria. The end of the 20th and the first two decades of the 21st century represent a period in which the demographic picture of Bulgaria is changing not only within the country's borders, but also outside them. The emigration of Bulgarians to countries from all continents during this period is intense and, since large Bulgarian communities have been forming in many EU countries and the United States, the linguistic processes these groups are undergoing are interesting. Among the members of these communities, a patriotic attitude towards the Bulgarian language and rather towards its variants, of which many of the members of the emigrant communities themselves are speakers, is striking. Such a community in Los Angeles was studied in 2012 (Mitsova, 2013) and the results of the included observation show that its members, with pleasure and a special sense of pride, try to use in communication with each other variants of Bulgarian that are as close as possible to the territorial dialects of which they themselves are speakers. The communication process is not only not disrupted, but is also 'pleasant', according to their answers to specially asked questions. Ten years later, however, when the members of these 'First Generation' Bulgarian communities are already integrated citizens of the countries to which they immigrated and their children were born and raised there, the

language situation has already acquired completely different characteristics. For the most part, ‘Second Generation’ Bulgarians abroad are already true bilinguals, with Bulgarian as a second language (Issa, 2023).

## 9. The Future of Bulgarian

The language situation in Bulgaria in the 21st century is marked by complexity, dynamism, and diversity. It can be seen as the result of the interplay of historical, social, political, and cultural processes, both within the Bulgarian state and beyond its borders. General definitions – such as those describing the situation as endoglossic and unbalanced – provide a conceptual framework. However, there are many other aspects that contribute to a fuller picture of the actual linguistic landscape and language situation. Therefore, there is a continuous need for profound and detailed studies based on geographic, social, generational, or digital criteria.

The digital world has become a central dimension of the life of languages in the contemporary era. In the early years of the internet, online communication had a strong impact on the global language situation. English took on the role of a contemporary lingua franca due to the need for its use in digital social spaces. Bulgarian, like other ‘small’ languages – especially during the first decade of the millennium – faced the challenge of preserving its Cyrillic writing system in online communication. The need to use the Latin alphabet in digital spaces raised many linguistic issues that had to be addressed by the current generation of Bulgarians.

One of these issues is the so-called “6liokavitsa” (shlyokavitsa – an untranslatable term used to describe the transliteration of Bulgarian using a mix of Latin letters and numbers that resemble specific Cyrillic letters, such as “ч” and “ш”, represented by 4 and 6 respectively). This global process, however, was successfully managed, and today there are numerous languages and writing systems available for online communication.

Nowadays, the Bulgarian online language situation is stabilized by the use of the Cyrillic alphabet and the widespread presence of computer science terminology, mostly borrowed from English and adapted to Bulgarian grammatical patterns (Mitsova, 2013). These recent developments in the language situation have allowed Bulgarian to find its place among other contemporary world languages and to face the newest challenges in communication, brought about by the rapid acceleration of AI technologies.

Many Bulgarians – especially younger generations – have become familiar with ChatGPT and similar tools, using artificial intelligence in their everyday lives. These developments offer a new perspective on the contemporary language situation in Bulgaria. Thus, due to global changes, an exciting new stream of potential research has emerged – one that can raise awareness among both ordinary speakers and sociolinguists in Bulgaria and the world.

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## What’s in a “брат”? Identity construction and labeling by young Bulgarian speakers

### Какво е “брат”? Конструиране на идентичност в речта на младите българи

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**Abstract.** This study explores the sociolinguistic and pragmatic functions of the Bulgarian term “брат” (‘brother’) in contemporary youth discourse, focusing on its role in identity construction and stance-taking. Based on survey data from 323 respondents aged 14–69, the findings reveal that *брат* functions as a stance indexical used predominantly by adolescents and young adults to signal solidarity, familiarity, and in-group affiliation. Gendered interpretations vary, with female speakers often reframing the term as a marker of expressivity rather than as a marker of masculinity. In contrast, non-active users, especially older respondents, frequently associate *брат* with ignorance or low prestige language, reflecting language ideologies that regulate slang use. The study demonstrates that *брат* has undergone a pragmatic shift from a kinship term to a socially marked address form that indexes generational, ideological, and stylistic identity. These findings contribute to our understanding how address terms mediate social differentiation and how innovative linguistic choices are perceived across generational cohorts within contemporary Bulgarian society.

**Абстракт:** Обект на настоящото изследване са социолингвистичните и прагматични функции на българския термин *брат* в съвременния младежки дискурс, като се фокусира върху неговата роля в изграждането на идентичността и заемането на различни социални роли от говорещите. Хипотезите, поставени в изследването, се основат на данни от проучване сред 323 респонденти на възраст 14–69 години. Въпреки че изследването не претендира за национална представителност, резултатите показват, че терминът присъства в речта на младите българи със значение на маркер, който индексира различни социални позиции. Така *брат* се използва за комуникация на позициите за солидарност (активните ползватели на термина са склонни да го използват като нарицателно към човек, с когото говорещите нямат пряка роднинска връзка, а по-скоро възприемат адресата като близък приятел или съмишленик, с когото имат общи интереси), фамилиарност – към човек, с когото имат близки приятелски взаимоотношения или принадлежат към една и съща група. Интерпретациите, разпознавани от респондентите от различни възрастови групи, декларирани или не полова принадлежност, варират – жените често преформулират термина като маркер за експресивност, а не като маркер, който комуникира гореспоменатите значения. За разлика от това, неактивните потребители, особено по-възрастните респонденти, често свързват употребата на термина с невежество или езикова употреба, която издава ниското образователно ниво на говорещия.

**Keywords:** youth language, Bulgarian slang, identity construction, address terms, *брат* (‘brother’), sociolinguistic function, linguistic attitudes, pragmatic shift, slang and stigma, stance and indexicality

**Ключови думи:** младежки сленг, конструиране на идентичност, маркери за идентичност, *брат*, социолингвистична функция, езикови нагласи, прагматична промяна, индексирание на социални позиции

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# 1. Introduction

## 1.1 Language Use and Identity

Identity is not solely an internal, individual construct but is shaped and influenced by external factors, such as social norms, cultural beliefs, and linguistic practices. I will quote here the words of Mary Bucholtz and Kira Hall: “Identity is best viewed as the emergent product rather than the preexisting source of linguistic and other semiotic practices and therefore as a fundamentally social and cultural phenomenon.” (Bucholtz & Hall, 2005, p. 588). Social identity is often considered to be signaled through arbitrary phonological, morphosyntactic, lexical or discursive structures on the macro- and micro-linguistic level. Through language, people make sense of their own experiences and thoughts, and they also present and project their own identity to others through self-expression, self-presentation, and social positioning. Furthermore, identity is viewed as a dynamic and ongoing process rather than a fixed or static entity. It is continuously negotiated and re-negotiated through social interactions and language use. The words we choose, the way we speak, and the narratives we construct all contribute to the formation and representation of our identities. Moreover, the role of the interlocutors in the construction of one’s identity should also be considered. It is the interlocutor’s understanding of how language acts, and encoded stances in linguistic practices convey socially recognized resources for structuring particular identities. Membership in a social group, whether it be in a distinct language community or distinct social group within a language community, depends on members’ knowledge of local conventions for building social identities through act and stance display. Speakers use linguistic structures, linguistic features and labels, and variable expressions to constitute their membership affiliation. They acquire, construct, and express different social roles through verbal practices associated with stance and social action recognized as such within the speech community. It is important to mention here also that speakers’ language choices often spontaneously shape language-based negative attitudes expressed towards certain linguistic practices and their users.

## 1.2 The Phrase *бpам* (‘brother’)

The research on the phrase *бpам* (‘brother’) illustrates a typical case of age grading in language use (Labov, 2001; Tagliamonte, 2016), where a linguistic form becomes associated with a particular generational cohort—in this case, predominantly adolescents and young adults. This case reflects how a term initially rooted in kinship semantics undergoes a pragmatic shift, evolving into a variable stance indexical that expresses solidarity, familiarity, emotional expressivity, and, at times, subcultural or gendered identity. As such, *бpам* exemplifies how youth language practices not only innovate lexicon but also reconfigure social meanings attached to everyday speech, making the term a dynamic marker of in-group affiliation and social positioning. The rapid development of the term as a marker of identity is recognized by all respondents as a term illustrating a newly developed pragmatic shift that vastly influences speech practices in young adolescent communities. The influence of such rapid spread and qualification of the term as a linguistic phenomenon particularly used by the young generation can be related to the dominant influence of the Anglo-American entertainment industry and pop-culture (film, music, Rhythm and Blues, rap, pop, punk, video games, social media) influence.

The meaning of the term is multilayered, as illustrated by the two definitions below, as presented in the official Bulgarian Language Dictionary:

1. “An address to a like-minded person or ally, used by people connected in a community and united by common interests”
2. “A man – member of a community, group, organization, and stance that shares the same situation, occupation, understandings etc. with the other members”.  
(<https://ibl.bas.bg/rbe/lang/bg/>)

These meanings have existed in Bulgarian literature and spoken language for many years, but their use with the innovative meanings mentioned above, apart from its denotative meaning designating one’s sibling, is not so frequent and mostly occurs in the form of vocative address – *бpамкo* [*bratko*] (‘brother’ + vocative suffix [o] – expressing address to a close friend, or like-minded individual). The linguistic situation with *бpам* (‘brother’) in present-day Bulgarian, particularly with youth slang, has been changing. Linguistic practices of young males and females in modern-day Bulgarian speech communities use the term as a means to communicate various stances during their linguistic interactions. This evolving usage reflects broader dynamics within Bulgarian speech communities, where *бpам* has become a marker used to signal affiliation, solidarity, informality, or even

challenge and irony, depending on the context. Crucially, these functions vary across age cohorts, with younger speakers innovating new meanings while older generations often perceive such usage as deviant or symbolic of declining linguistic standards. The term thus operates on multiple sociolinguistic levels: (1) it enables speakers, particularly youth, to negotiate group membership and social identity, (2) it serves as a linguistic resource for expressing alignment or misalignment in interaction, and (3) it invites generational interpretations that reveal tensions over language ideologies, values, and change.

### 1.3 Goal and Research Questions

The main goal of this study is to examine and showcase the particular use of the Bulgarian kinship term *брат* ('brother') in the slang of young Bulgarian speakers. Specifically, the research investigates how *брат* is perceived and used across diverse age and gender demographics, highlighting its evolving social and pragmatic functions. The study is guided by the following research questions:

1. In what ways is this lexical item loaded with diverse functions that facilitate the construction and expression of the speakers' identities?
2. How do speakers use the term to signal affiliation with specific social groups and to express their attitudes toward both in-group and out-group members?

The research is based on a survey conducted with participants spanning multiple age groups and backgrounds, as explained in the Methodology section.

## 2. Methodology

### 2.1 Participants

The results were drawn from an anonymous survey. A sample of respondents (N=323) was used, covering the age range of 14–63 (age cohorts 14–17, 17–20, 20–35, 35–69), 6 participants did not disclose their age), with various social and professional statuses, and both males and females. There were 210 female participants (66.46%) and 105 male participants (33.54%), along with 8 individuals whose gender was not specified, as they responded with either "NA" or left the response blank.<sup>1</sup> All informants participated in an online survey conducted from April until May 2023, marking 323 participants – native Bulgarian speakers (277 participants) and non-native Bulgarian speakers (46 participants declared their citizenship of Albania, Azerbaijan, Canada, Georgia, Italy, Kazakhstan, Macedonia, Russia, Turkey, Ukraine, USA, UK).

The age range of the respondents is 14–63, but the respondents above 28 years of age are limited to 20 respondents, which is not enough to define credible data for large generalizations. Still, the size of the sample provides insights into the attitudes and perceptions of the various generational groups towards the use of the term *брат* ('brother') by teenagers and young adults.

The survey aimed to include speakers from various regions in Bulgaria (including dialect speakers of both large dialectal groups – East Bulgarian dialect group and West Bulgarian dialect group). The survey also invited non-native Bulgarian speakers with limited and more advanced knowledge of Bulgarian language living within the sociocultural Bulgarian environment and acquainted with modern Bulgarian linguistic practices. Non-Bulgarian speakers are international students at the American University in Bulgaria, inhabiting the same linguistic and sociocultural environment – university campus and small-town environment. Non-native Bulgarian participants characterize their proficiency in the Bulgarian language as ranging from A1 to C1 according to their self-assessment.

### 2.2 Survey Language

The survey was conducted in either Bulgarian or English, contingent upon the participant's language preference. It comprised open-ended questions that prompted respondents to articulate their understanding of the term, engage in self-reflection regarding their linguistic practices and the application of *брат* ('brother'), as well as express their attitudes towards individuals who actively employ this term.

## 2.3 Extra Question

In addition, a question was included that focused on what the other trending terms marking synonymous or approximate meanings were. These terms are recognized by young individuals as part of their slang, marking again their stance and social identities. The linguistic variants employed in contemporary slang and modern Bulgarian communicative culture are encapsulated in one of the questions in the survey, which explores the alternative forms of address recognized as trendy by the same age cohort of participants. Included below are the findings, all of which are derivatives of the principal form *брат*: *братчето ми* [*bratcheto mi*], *братче* [*bratche*], *брат ми* [*brat mi*], *братан* [*bratan*], *бро* [*bro*], *бате* [*bate*], *братле* [*bratle*], *братленце* [*bratlentse*], *браточка* [*bratochka*], *братушка* [*bratushka*], *борат* [*borat*], *брааат* [*braaat*], *бронанарт* [*bronapart*], *брок* [*bror*], *братър* [*brother*]. The preference of the speakers is for the main form, illustrated by the frequency of *брат* use.

## 2.4 Follow-up Group Meeting

In addition, a follow-up focus group meeting was conducted with 22 respondents (10 males and 12 females, aged 18–19) for further definition and investigation of their attitude and explanation of the stances communicated through *брат*.

## 2.5 The Survey Questions

To test attitudes as well as linguistic practices in Bulgaria towards the phrase *брат* and the people using this phrase, a survey titled “The use of *brat* in the speech of young Bulgarian speakers” was held among 323 respondents. It included the following questions on the phrase *брат*:

- How often do you use the term as an address term in your speech? [Multiple times per day / Once per day / Very rare / Never]
- What kind of person are you likely to use it to address? [A close friend, like-minded person, with whom I am a member of the same group / Any like-minded person or ally with whom we are connected in a community and united by common interests / Only close kin/relative / I wouldn't use that address to anyone]
- Would you use this address to: [a boy / a girl / a close friend (female/male) / acquaintance (female/male) / somebody unfamiliar (female/male) / parent (mother/father) / professor (female/male)]
- What is the purpose for which you are using this term? (Open answer)
- What do you think the use of this word says about you to the person you address? (Open answer)
- How do you perceive people using this word? (Open answer)
- How would you describe people using this term? (Open answer)

Finally, a question asking respondents what the other trending terms marking synonymous or approximate meanings were was added aiming to follow the development of the *брат* term and its use in word or phrase composition of other terms:

- What other words (e.g. *brat mi*, *bratcheto mi*, *bratochka*, *brato*, *pich*, *kopele*, *friend*, *maniac*) would you use in a similar situation/context with the same meaning?

## 2.6 Analysis

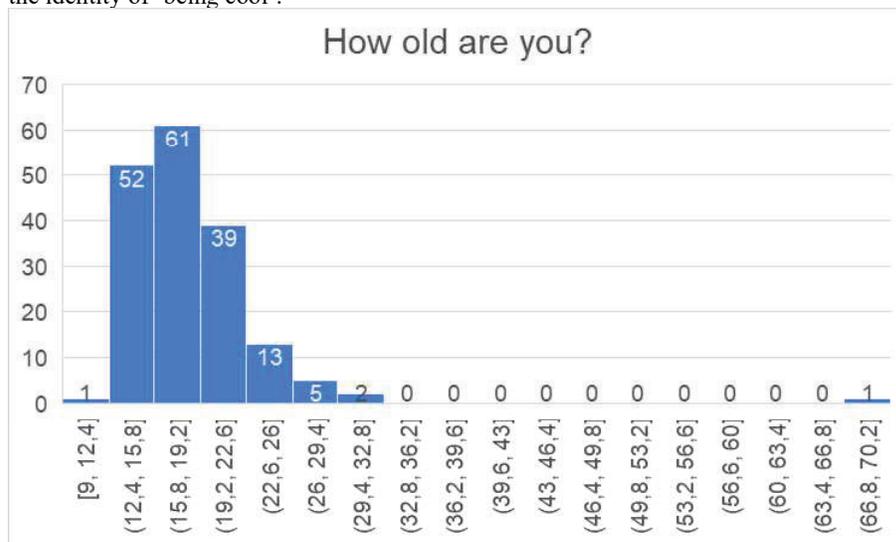
The survey is not committed to be exhaustive, or nationally representative. Rather, it gives a good grounding for continuous research and data collection encompassing various numbers of participants and representatives of different ages, social standings, geographical regions, and ethnic backgrounds. Hence, the data sample presented in this research is only introducing some preliminary and definitive analyses of the indexical associations with the types of stances communicated by the interlocutors and ideologically provoked expectations among speakers due to their culturally constructed linguistic practices.

### 3. Results

The survey respondents can be clustered into two groups on the basis of their responses. Group 1 are the Active users, and Group 2 are Non-active users. The meanings of these qualifications are on the basis of the self-reported frequency of *ōpam*.

#### 3.1 Group 1: Respondents Using *ōpam* One or More Times a Day ('Active users')

This distinction between respondents is based on the question “How often do you use the term as an address term in your speech?” Group 1 were the participants that chose either “Once a day” or “Multiple times per day”. These respondents will be labeled **Active users** throughout the text. This means that the speakers recognize the term within the semantic domain of the defined meanings proposed in the chart below and use it at least once per day in their speech. The number of respondents in this group is 174 (out of 323) and includes both native (148 respondents) and non-native (26 respondents) Bulgarian speakers. The age range ranged from 9 (only one respondent) to 39. There was only one respondent aged 69 who recognized the use of *ōpam* in their speech. This respondent indicated in their response that they use the term in situations when they purposefully self-construct the identity of ‘being cool’.

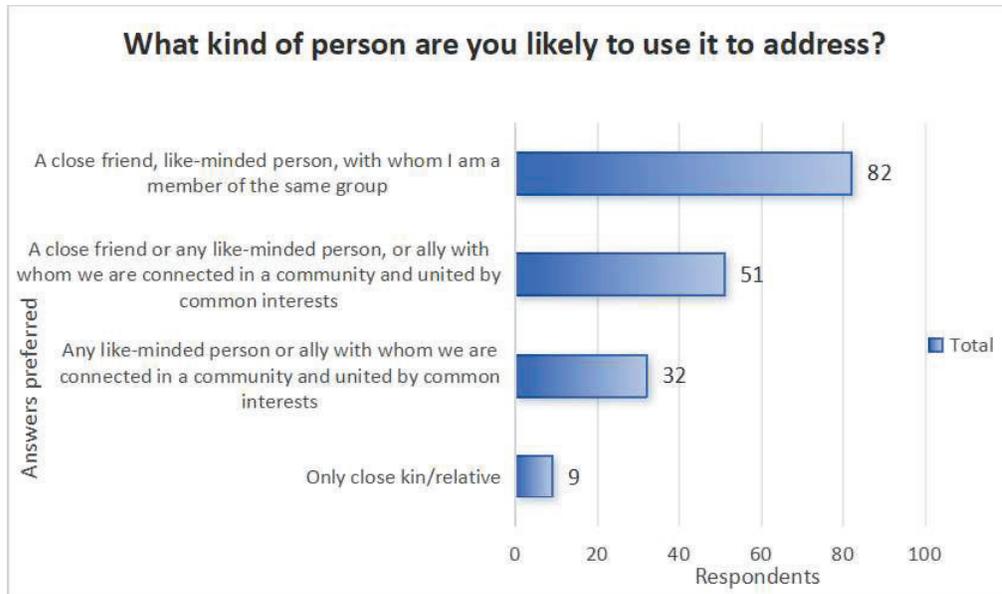


**Graph 1.** Age distribution of respondents who answered “Once a day” or “Multiple times per day” to “How often do you use the term as an address term in your speech?”.

As can be seen, the group of Active users is aged 13 to 22 (only a few of the active users are aged below 13 and above 22, 4 of the respondents did not provide their age), this illustrates that the claim that the term is a significant part of the slang of young people is plausible. The tendency may be that with age speakers start using it less. Thus, the study contextualizes contemporary data on modern linguistic practice among various age cohorts and illustrates a continuous process of change not only in the discursive practices including *ōpam*, but also in the social evaluation of the term and attitudes of non-active users towards the Active users. Additional studies are required to determine the highest and lowest age at which *ōpam* is part of the lexicon of individuals.

The data presented in the following study draws the trajectory of the age range of active *ōpam* users for the age cohort of 16–20, but is not valid for the lower margin age cohort of 9–10 due to the ethical and legal regulations required for younger generations to be included as research subjects.

Below are the responses of Group 1 to questions measuring pragmatic and social functions. Graph 2 shows the responses of Group 1 on the degree of like-mindedness stance.

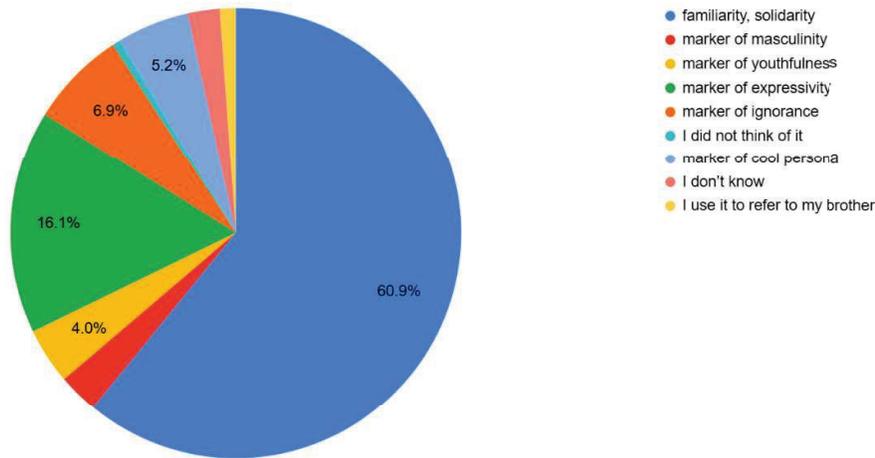


**Graph 2.** Like-mindedness as measured among Group 1 respondents.

This chart and survey question, “What kind of person are you likely to use it (*ōpam*) to address?”, tests the **perceived social scope and indexical meaning of the address term** *ōpam* in respondents’ everyday speech. The responses reveal how participants define the social boundaries of the term and what types of relationships or identities it pragmatically marks. These answers give us important information about the additional connotative meanings assigned to the term *ōpam* apart from the denotative meaning ‘close relative from one’s personal bloodline’. The term, when used in an informal conversation by the speaker to the addressee, indexes the respondents’ associations located in the semantic domain of the term linked to ‘a like-minded individual’ or the respondents are most likely to address interlocutors that they perceive as close friends, and part of the same like-minded group. 82 respondents say they use *ōpam* for “A close friend, like-minded person, with whom I am a member of the same group”. This suggests that *ōpam* has strong in-group indexicality. The term has become a marker of peer solidarity, shared values, and group membership, rather than kinship. 51 respondents say they would use it for any like-minded person or ally. This indicates a broader but still ideologically bounded usage, where *ōpam* marks affiliation, community, or like-minded identity. It shows *ōpam* as a flexible resource for aligning with others beyond intimate circles. 32 respondents choose even less intimate definitions, using *ōpam* for “any like-minded person or ally united by common interests”. This points to the ideological extension of the term, where it can mark solidarity even among acquaintances or strangers, as long as there is a sense of unity or common cause. By contrast, only 9 respondents reserved the term for actual kin or relatives, indicating a diminished role for its original familial meaning in everyday communication in the context of the survey. One of the respondents did not mark any of these answers.

Graph 3 shows stances indexed by *ōpam* reported by the Active users of the term (both male and female). One open-ended item asked participants to reflect on their use of particular forms of address: “What is the purpose of using this address in your speech? What do you think the word says about you to the person you address?”. Participants were asked to explain the pragmatic intent and social meaning behind their choice of address terms, specifically how such usage might reflect aspects of their identity or relationship with the interlocutor. The results are illustrated in Graph 3 (both male and female).

What is the purpose you are using this address in your speech?  
 What do you think the use of this word says about you to the person you address?

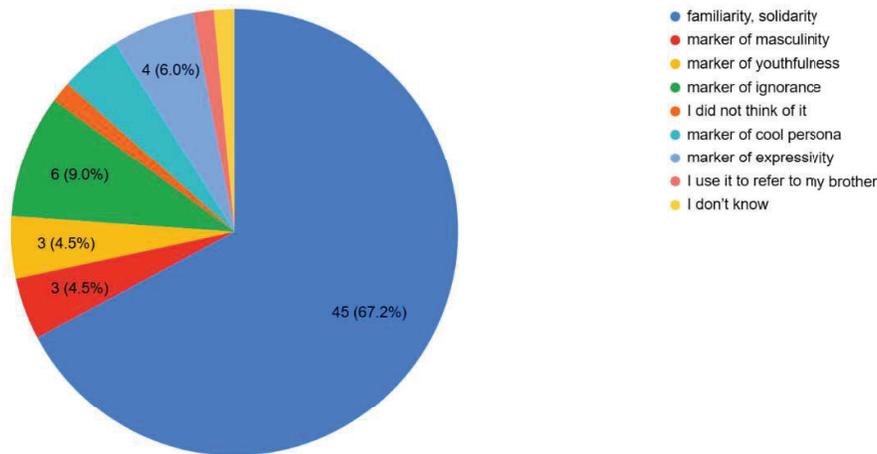


**Graph 3.** Stances indexed by *brother* reported by the Active users of the term (both male and female)

The analysis of the responses evaluating expressions with *brother* ('brother') proposes that it indexes the following stances: *familiarity, solidarity* (60.9%), *expressivity* (discourse marker of emotional expressiveness) (16.1%), *marker of a cool persona* (5.2%), *marker of ignorance* (6.9%), *marker of masculinity* (2.9%), *marker of youthfulness* (4.0%). Thus, the dominant stance communicated using the term *brother* in this group is *familiarity, solidarity, and expressivity*.

To explore potential gender-based differences in stance-taking, responses to the same questions, mentioned above, were examined separately for male and female participants. The thematic distributions according to male respondents are presented in Graph 4.

What is the purpose you are using this address in your speech?  
 What do you think the use of this word says about you to the person you address?



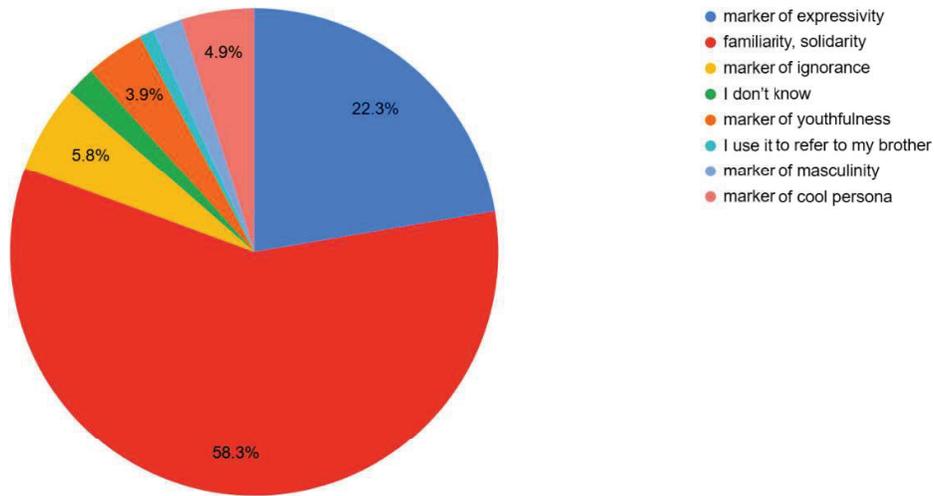
**Graph 4.** Stances indexed by *brother* term (male respondents)

67.2 % of the male respondents use *brother* to communicate *familiarity, solidarity*; for 9.0% it is a marker of *ignorance* (uneducated person); for 6.0% *brother* is perceived as a discourse marker communicating *expressivity*; 4.5% communicated a stance of a *cool persona*; 4.5 % communicated a stance of *youthfulness*; and 4.5% communicated a stance of *masculinity*, the other percentages are distributed among responses 'I don't know' and 'I use it to refer to my brother only' but these are minor percentages that fall on the margins between the two groups – the active users of *brother* and non-users.

Graph 5 shows the results for the female participants.

What is the purpose you are using this address in your speech?

What do you think the use of this word says about you to the person you address?



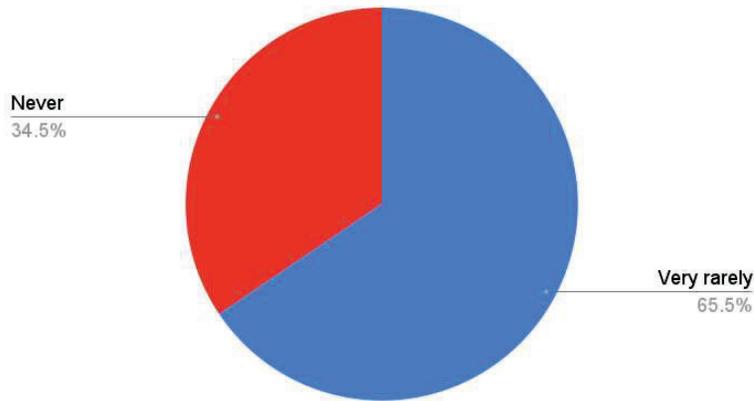
**Graph 5.** Stances indexed by *bepam* term (female respondents)

Female respondents predominantly framed their use of the term *bepam* as a marker of *familiarity, solidarity* (58.3%), with a notable portion also viewing it as a marker of *expressivity* (22.3%). The increase in female Active users, and their perception of the term as a marker of *expressivity*, indicates emotional involvement or performative language use. This aligns with the pragmatic role of the address term in signaling stance and emotion which is notably more in the group of female respondents. Interestingly, only a few respondents identify *bepam* as a marker of *masculinity, youthfulness*, or a *cool persona*, which may suggest that female users do not strongly associate the term with gender identity despite its male semantic and grammatical origins. This could be a process of pragmatic shift *bepam* may be undergoing where gendered meanings fade in favor of social functions like solidarity reflecting dynamic stance-taking and identity construction in discourse. Notably, a very small number of female respondents described *bepam* as a marker of *ignorance*. These responses might reveal that the term itself is positively evaluated as a legitimate and expressive marker and not necessarily express negative attitudes toward its active users both male and female – an attitude and negative judgment which is visible within the responses of the second group of respondents.

### 3.2 Group 2 – Respondents Using *bepam* Very Rarely or Never ('non-active users')

The cohort comprised 148 respondents, demographically represented as follows: native Bulgarian speakers (128 participants) and non-native Bulgarian speakers (20 participants), with a gender distribution of male (38 participants) and female (106 participants), and 4 unspecified participants. The results for both genders are in Graph 6.

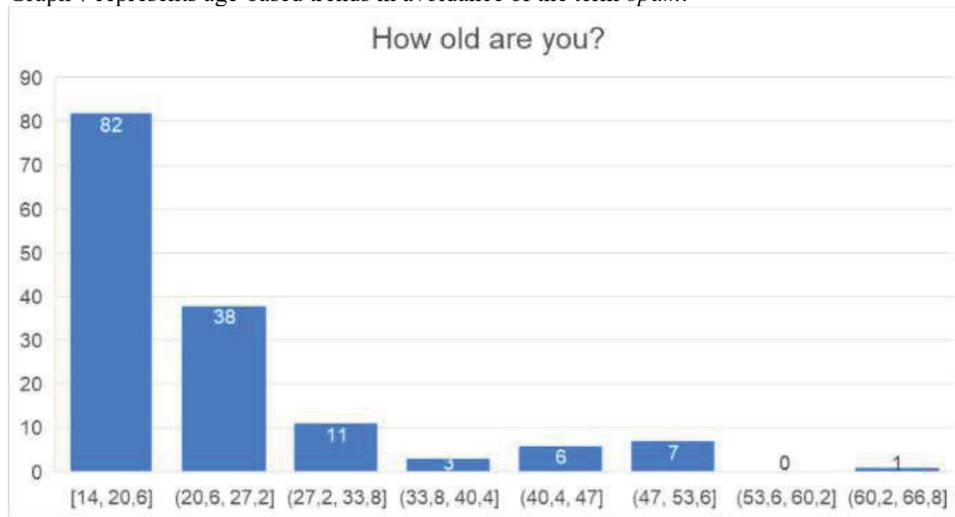
How often do you use the term as an address term?



**Graph 6.** Distribution of responses “Very rarely”, “Never”

Graph 6 represents the distribution of the answers of “Very rarely” – 65.5% (68 respondents), and “Never” – 34.5% (38 participants).

Graph 7 represents age-based trends in avoidance of the term *ōpam*.

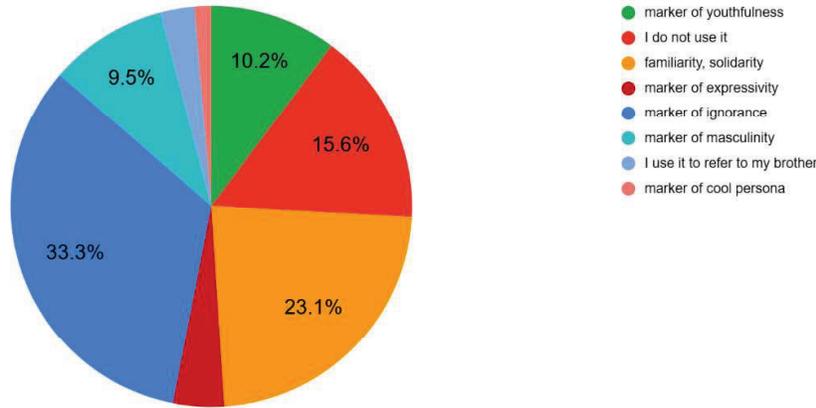


**Graph 7.** Age distribution of Group 2 (Non-active users)

Avoidance of *ōpam* spans multiple age groups, showing that non-use is not exclusive to older or younger speakers. However, the largest group of non-users comes from youth aged 14–20, which is surprising given that youth are often the most innovative with slang and address terms. It should also be mentioned here that this cohort marked their response not as “Never” (use the term in my communication), but as “Very rarely”, which might suggest sociolinguistic distancing. Some young speakers may intentionally avoid *ōpam* to reject what they perceive as inauthentic, overused, or stereotypical language which is associated with specific subcultures or street language. The group of respondents not using *ōpam* (Non-active users) includes not only adolescents and young adults but also the majority of respondents aged above 22, as well as all senior participants in the survey. The age distribution of respondents who reported “Never” or “Very rarely” using the term reveals nuanced patterns when considered alongside gender and stance data. This group of participants connects the application of the term with individuals of a specific age demographic. In their responses to open-ended questions, they express that they are not active users and tend to utilize *ōpam* “Very rarely” or “Never”; instead, they adopt it only occasionally, regarding it as unsuitable within their communicative practices.

The graphs below show the results for social and pragmatic meaning of the term *ḃpam* as reported by the Non-active users of the term (both males and females). Graph 8 represents stances assigned to the term, including its pragmatic and social functions.

What is the purpose you are using this address in your speech?  
 What do you think the use of this word says about you to the person you address?



**Graph 8.** Stances assigned to the term, its pragmatic and social functions.

Among respondents who report minimal or no use of the term *ḃpam*, perceptions of its social meaning reveal significant divergence. Majority of respondents (33.3%) categorize it as a *marker of ignorance*, indicating a strong negative stance toward its use. However, nearly a quarter (23.1%) acknowledge its function as a *marker of familiarity and solidarity*. Another significant difference is the appearance of the ‘I do not use it’ response, which accounts for 15.6%, an observable increase of percentage recognizing the term as a *marker of youthfulness* (10.2%), and *marker of masculinity* (9.5%), and only 4.4% perceive it as a *marker of expressivity*. This is a significantly different picture of perceptions of *ḃpam* among non-active users and their associations and characteristics assigned to the Active users of the term.

### 3.3 Examples of open answer questions “How do you perceive people using this word? How would you describe them?”

As mentioned above, some of the questions included in the survey are open-answer questions. The questions “How do you perceive people using this word? How would you describe them?” asked participants not to comment on their own use of the term, but on how they interpret others’ use of the term. That is, what language ideology is implied by certain forms of speech and what they reveal about the speakers (Silverstein, 1993).

**Table 1.** Some answers to the question ‘How do you perceive people using this word?’ and ‘How would you describe them?’

Respondents/age	Answer
Female, 49	<i>they (users of ḃpam) are ignorant, possessing low level of education</i>
Female, 22	<i>they are uneducated</i>
Male, 28	<i>they are simple-minded, uneducated</i>
Female, 50	<i>individuals with poor language command</i>
Male, 22	<i>These people do not use the full potential of their language skills and feel more comfortable to use slang because they do not have vast knowledge of the world. These people use these label terms because of their frequent communication in informal situations. These are more often young adults and adolescents which use these words in their environment and mostly to imitate and associate with other like-minded individuals</i>
Female, 26	<i>When overused, I would identify this word as a viral word and would not consider the person using it being polite or well-educated</i>
Male, 35	<i>poor language capacity</i>

## 4. Discussion

The findings from this study reveal (although that the number of respondents does not provide sufficient data for generalizations validated by a large sample of respondents from various age cohorts) that the Bulgarian address term *бpам* ('brother') functions as a stance indexical (Du Bois, 2007), whose social meaning is highly sensitive to age, gender, and context. The term is not simply a lexical item used to denote kinship, but a linguistic resource for enacting and negotiating social identity, particularly among young speakers. As the survey data demonstrate, *бpам* operates within an indexical field (Eckert, 2008) encompassing meanings of solidarity, expressivity, masculinity, and subcultural in-group membership affiliation. Respondents use or avoid the term not only to communicate interpersonal relationships but also to position themselves within broader ideological landscapes of youth language, gender norms, and linguistic credibility.

For Active users (as presented in Group 1), predominantly adolescents and young adults aged 14–22, *бpам* indexes *solidarity*, *familiarity*, and *emotional expressivity*. These respondents demonstrate a high degree of metapragmatic awareness (Silverstein, 1993), as they are not only aware of how the term functions but also articulate how it reflects their own identity and social stance. Female respondents, for example, were more likely to view *бpам* as a marker of *expressivity* rather than *masculinity*, suggesting a pragmatic shift where the term's gendered connotations are alternated in favor of its role in peer bonding and informal discourse. This shift is consistent with broader processes of stance recontextualization (Agha, 2007), in which linguistic forms are re-evaluated and reassigned social meanings by specific speech communities.

However, gender remains a prominent ideological boundary in how *бpам* is perceived. A notable portion of respondents, particularly among the non-active users in Group 2, assign the term a stance of masculinity, often disapproving of its use by female speakers. While female users tend to appropriate *бpам* for solidarity or emotional expressivity (as in expressions "*Ох, бpам!*", "*Смуща, бе, бpамче!*"), such usage is not always socially accepted. Listeners, especially male respondents, are more likely to perceive this as inauthentic or linguistically inappropriate for women. As one male respondent (age 18) noted: "*If I hear a girl address another girl with бpам, it's ugly—not elegant for girls.*" A female respondent (age 20) seconded this, stating: "*I would perceive it as okay, if it's used toward a boy, but for girls, it's strange.*". These perceptions reflect gendered language ideologies (Ochs, 1992) that regulate not only the appropriateness of specific forms but also their acceptability across speaker identities. These ideas give a good ground for further research on the topic.

Moreover, several responses connect the use of *бpам* to performative masculinity and the broader 'batka' cultural stereotype – a Bulgarian subcultural persona associated with hypermasculinity, wealth display, and aggressive style. One respondent (male, age 21) stated: "*I associate people using this word with a stance of toxic masculinity and batka culture.*". This highlights how *бpам*, beyond indexing closeness or informality, can bring up entire ideological models of social behavior and class-coded identity (Bourdieu, 1991). When used by certain male speakers, the term becomes a symbolic marker of exaggerated masculinity and social dominance, further complicating its evaluative field. Another subject yet to be explored in greater depth.

Non-active users (**Group 2 in the survey**), including both older respondents and a notable number of youth, tend to associate *бpам* with *ignorance*, *limited education*, or *in-group alignment*. For the first stance it evokes a negative language ideology (Schieffelin et al., 1998) in which slang is seen as an index of deviance or linguistic deficiency rather than creative expression. As respondent 4 (female, age 50 – Table 1.) noted: "*Individuals with poor language command*".

The rejection of *бpам* by some younger speakers, those who marked "Very rarely" or "Never", is particularly revealing. Rather than indicating unfamiliarity, this stance reflects a deliberate sociolinguistic distancing. These respondents are aware of the term's social salience but choose not to affiliate with the masculinized or performative identity they believe it indexes. While others share in their responses that the term suggests the meaning of low prestige language and language limitation, but prefer it because of the stance of solidarity expression. As one of the respondents reports: "*At first, I thought this word as a parasite word, but after I started to use it and apply it as a sign of familiarity, solidarity. As a representative of the male sex, I like other man to address me with бpам, because it makes me feel that they want to cut the distance when in conversation.*"<sup>4</sup> Such distancing is itself a stance act, used to project alternative forms of identity, linguistic competence, or social belonging (Bucholtz & Hall, 2005).

Moreover, responses to the open-ended questions demonstrate that listeners not only interpret the use of *бpам* as ideologically loaded but also evaluate the speakers themselves in terms of competence, background, or alignment with particular social groups. This is in agreement with Ochs's (1992, 1993) arguments about how linguistic forms index social meanings indirectly, via their association with acts and stances. In this study, *бpам* functions as a symbolically strong form, subject to both positive reappropriation by young speakers and disapproval by others. The coexistence of these different stances underscores how linguistic forms can serve as

sites of ideological group action, where meanings are negotiated through everyday interactions and language choices (Bourdieu, 1991).

Finally, the variety of neologisms and compound forms derived from *брат* (e.g., *братле*, *братан*, *братушка*, *бро*, *брадър*) further illustrates the productive creativity and indexical flexibility of the term in youth discourse. These lexical innovations reaffirm *брат*'s central role in a generational style repertoire, where address terms serve not only referential functions but also perform identity work (Bucholtz, 1999b; Tagliamonte, 2016). While the term's popularity may be temporally bounded, its current status within Bulgarian youth culture reflects broader dynamics of language change, stance-taking, and the ideological regulation of speech. It serves as a marker of identity negotiation and is recognized by not only Bulgarian native speakers, but also by non-native speakers as marked in the survey.

## 5. Conclusion

This study explored the shifting social and pragmatic functions of the Bulgarian term *брат* ('brother') among speakers of different ages and genders, even representatives of non-native Bulgarian speakers, although in a limited number. The findings show that *брат* serves as a stance indexical, most actively used by youth to express *solidarity*, *expressivity*, and *in-group affiliation*. Female speakers often reframe it as emotionally expressive, though this use is sometimes met with negative judgment. In contrast, many Non-active users associate the term with ignorance, in some cases hypermasculinity, particularly in connection with the *batka* Bulgarian subcultural stereotype. These different evaluations highlight how *брат* functions not just as an address term but as a marker of social positioning, identity construction and communication of identity, and ideological alignment. While the study offers valuable insights into the topic, its sample of 323 participants is not nationally representative, particularly for older age groups. Future research should build on these findings with larger, more diverse samples and qualitative methods to deepen our understanding of how youth address terms mediate identity, stance, and linguistic norms in contemporary Bulgarian society.

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## Articulatory Specifics of Lateral Consonants in Bulgarian and Serbian

### Артикулационни особености на латералните съгласни в българския и в сръбския език

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**Abstract.** This study investigates the articulatory and acoustic characteristics of lateral consonants in Bulgarian (л [l] and л' [l']) and Serbian (л [l] and љ [ɭ]). Framed within a sociolinguistic context, it highlights how language contact and genealogical proximity between Bulgarian and Serbian influence pronunciation—especially in language learning. The analysis compares the place and manner of articulation of the laterals, as well as their formant structures. Key differences include laminal vs. apical articulation, alveo-dental vs. alveolar contact points, and the contrast between soft consonants (л' as palatalized alveo-dental and љ as alveolo-palatal). Acoustically, the formant behavior of lateral sounds shifts depending on adjacent vowels, leading to either convergence or divergence of F1, F2, and F3. The strong interaction between laterals and neighboring sounds also produces various individual or dialectal articulation variants. The conclusion emphasizes that, despite many shared features, the phonetic differences must be considered when forming an articulatory base for learning either language.

**Абстракт.** Настоящото изследване разглежда артикулационните и акустичните характеристики на латералните съгласни звукове в българския и сръбския език – л [l] и л' [l'] в български, и л [l] и љ [ɭ] в сръбски. Извършен е съпоставителен анализ на артикулацията и акустичните характеристики на латералните съгласни в двата езика. Подчертават се разликите между ламинално и апикално учленение, както и между различните места на учленение на твърдите и меките съгласни звукове в двата езика, което се отразява във формантната структура на изследваните звукове. Установяват се прилики в съотношението между стойностите на F1, F2 и F3 на твърдите и меките съгласни в българския език и в сръбския език. Резултатите показват силно взаимодействие между съгласните и съседните звукове (гласни или съгласни), което води до редица индивидуални или диалектни варианти. Заключението е, че макар и да съществуват общи черти между българските и сръбските латерални съгласни, специфичните различия трябва да се считат при изучаването на някой от двата езика като втори.

**Keywords:** Phonetics, consonant system, Bulgarian language, Serbian language

**Ключови думи:** фонетика, консонанта система, български език, сръбски език

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## English Version (Abridged)

The dynamic development of modern society produces new circumstances that influence the processes within speech communities. From a sociolinguistic point of view, changes in the social conditions of interaction among native speakers lead to changes in the language of individuals. For example, numerous contact opportunities, such as study abroad, Internet communication, migration, cultural and economic relations, etc., with speakers of other languages lead to the development of various types of individual and social bilingualism. Learning a foreign language begins with mastering the proper articulation of sounds. In sociolinguistic terms, it can be said that the formation of individual artificial bilingualism (Pachev, 1993, pp. 340–341) begins at the phonetic level. But when there is genealogical closeness between two languages, very often sounds of the foreign language that are close to sounds of the native language are not properly articulated. Also, foreign language teachers must pay special

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attention to the specific articulation of sounds. This is especially true for languages that are not only genealogically close, but are also used by neighbouring peoples, such as Bulgarian and Serbian.

The Bulgarian and Serbian languages belong to the South Slavic language group and have many features in common, but also differences that are the result of linguistic and extralinguistic factors. The two languages have always been languages in contact through their dialects, and the Western Bulgarian and Eastern Serbian dialects have many similar features in the field of phonetics, morphology, syntax, and vocabulary.

According to Kochev (2010), the phonetic systems of the Eastern and Western Bulgarian dialects reflect the typological characteristics of the Eastern and Western Slavic languages. On the one hand, both in the languages of the Eastern Slavic group and in the Eastern Bulgarian dialects (as well as the Bulgarian literary language), there are many soft consonants, and, on the other hand, similarly to the Western Slavic languages (and the Serbian language), there are fewer but very soft consonants in the Western Bulgarian dialects. This is due to the stronger interaction between vowels and consonants in contact position in the Eastern Bulgarian dialects, while it is weaker in the Western Bulgarian dialects (Kochev, 2010, pp. 20–21). As a result of the vowel-consonant interaction, the Bulgarian language has a greater number of consonants, while the Serbian language has a weaker vowel-consonant interaction, but a well-pronounced polytony and four accents.

Obviously, there are differences between the Bulgarian and Serbian languages on both the phonetic and morphological levels, but, due to the common basis of the two languages, they have many common features, too. The object of the study presented here are the lateral consonants л (l̥) and л' (l̥') in Bulgarian as well as л (l) and љ (ɭ) in Serbian, and the goal is to present in a comparative framework some of the articulatory and acoustic characteristics of the four consonants (Stoykov, 1966; Tilkov, 1983; Miletich, 1933; Petrovich & Gudurich, 2010). To achieve the goal of the study, the following tasks were formulated:

1. Comparing the lateral consonants in the two languages according to place of articulation and manner of articulation.
2. Analysing the acoustic characteristics of the lateral consonants.
3. Indicating the differences in the articulation of the lateral consonants in Bulgarian and Serbian; for proper articulation of the lateral consonants by learners of these two languages.

Lateral consonants are sounds in which an obstruction and a passage simultaneously form in the oral cavity for the airstream to flow past. We can say that there is both an obstruction and a passage in the articulation of lateral consonants, as in the case of constrictive fricative consonants, but the obstruction is retained during the act of articulation. The main articulating organ is the tongue, the front part of which touches a section of the area between the teeth and the front portion of the hard palate to make the obstruction, while its ends are relaxed downwards. Thus, a lateral passage (or passages) forms (form) for the airstream to flow past.

As a result of the comparative analysis made in this article of the articulation and acoustic characteristics of the lateral consonants л (l̥) and л' (l̥') in Bulgarian and л (l) and љ (ɭ) in Serbian, the following conclusions can be drawn:

1. The lateral consonants in both languages are articulated by the simultaneous formation by the tongue of an obstruction and a passage (or passages). What is different is the elevation of the back of the tongue as well as the volume of participation of the tongue in the articulation: the Bulgarian consonant л is laminal, while the Serbian л is apical. In addition, there are differences in the main place of articulation: the Bulgarian consonant л is alveo-dental, while the Serbian л is rather alveolar. Of the soft consonants, л' is a postalveolar (or palatalized alveo-dental) sound, while љ is a pre-palatal (or alveolo-palatal) one.
2. In terms of acoustics, the formant structures of the lateral sounds in both languages depend on the character of the vowels that follow them. In contact with a compact vowel, the first and second formants of the lateral consonant become closer, and when a diffuse vowel follows, the second formant of the lateral moves away from the first and approaches the third one (Tilkov, 1983; Petrovich & Gudurich, 2010; Marinov, 2015).
3. The strong interaction between the lateral consonants and their neighbouring sounds has resulted in the recording in both languages of many personal or dialectal articulation variants, which include both very soft (palatal) consonants as well as hard (velarized) consonants.

In conclusion, we can summarize that the Bulgarian and Serbian laterals have many features in common, but there are also differences that should be emphasized in the formation of the articulation base when learning either of the languages.

## 1. Въведение

Българският и сръбският език са част от южнославянската езикова група, като между тях има както множество общи черти, така и различия, които са резултат от лингвистични и екстралингвистични фактори. Както отбелязва Ц. Иванова, „от гледна точка на лингвистичната география при славянските езици се наблюдава плавен континуитет [...] От друга страна, също в отделни южнославянски райони, от потенциално общи изходни бази и възможности за единна стандартизация, се развиват остри разграничаващи процеси, които завършват с обособяването на отделни книжовни езици, някои от които се отличават с твърде малък брой диференциални признаци (на фона на повечето разлики между диалекти на един и същ стандартен език сред други групи от индоевропейското езиково семейство като сравнение)“ (Ivanova, 2004, p. 60). Българският и сръбският език винаги са били „езици в контакт“ чрез своите диалекти, поради което се е образувал един широк ареал, обхващаш западните български и източните сръбски говори, където са налице сходни особености в областта на фонетиката, морфологията, синтаксиса и лексиката.

Според Ив. Кочев фонетичните системи на източните и западните български диалекти отразяват типологичните характеристики на източните и западните славянски езици. От една страна, както в славянските езици от източната група, така и в източните български диалекти (и в българския книжовен език) има голям брой меки съгласни, а от друга, подобно на западните славянски езици (и сръбския) в западните български диалекти са налице малко на брой, но силно меки съгласни, които образуват т. нар. *автономен палатален ред*. Това се дължи на по-силното на изток и по-слабото на запад взаимодействие между вокали и консонанти в контактна позиция (Kochev, 2010, pp. 20–21). С други думи, на фонетично ниво българският език се отличава с по-голям брой консонанти (заради развоя на корелацията „твърдост-мекост“), докато в сръбския език се развива вокализъмът като резултат от политонията и наличието на четири ударения (Georgiev et al., 1986, p. 361). На морфологично ниво сръбският език съхранява падежната система и инфинитива, докато българският език притежава богата темпорална система при глагола, както и развива специална морфема за изразяване на категорията „определеност“ при имената – определителния член.

Както се вижда, между българския и сръбския език има различия и на фонетично, и на морфологично ниво, но трябва да се отбележи, че заради общата база на двата езика има и множество общи черти. **Обект** на това изследване са латералните консонанти л ( $l$ ) и л' ( $l'$ ) в българския език и л ( $l$ ) и љ ( $lj$ ) в сръбския език, а **целта** е да се представят в съпоставителен план някои от артикулационните и акустичните характеристики на четирите консонанта. За постигане на целта на изследване са формулирани и следните **задачи**: 1) да се сравнят латералните консонанти в двата езика по място и начин на учленение; 2) да се анализират акустичните характеристики на латералните консонанти; 3) да се очертаят разликите в артикулацията на латералните консонанти с оглед на коректната артикулация на латералните консонанти в българския и сръбския език (напр. при усвояването на някой от двата езика).

## 2. Съпоставителен анализ на латералните съгласни в българския и в сръбския език

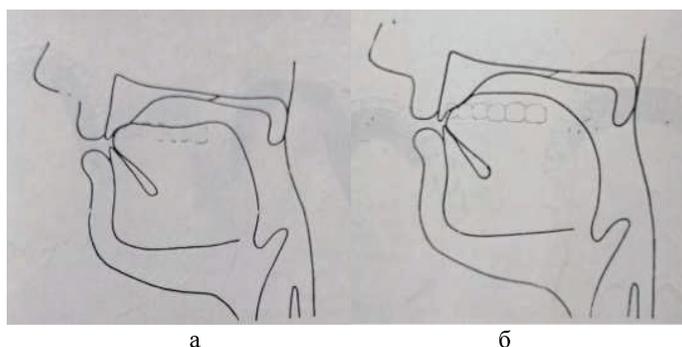
Латералните консонанти са звукове, при които в устната кухина се образува едновременно преграда и проход, през който преминава въздушната струя (Ladefoged & Maddieson, 1996, p. 182; Tilkov, 1982, p. 64). По отношение на това може да се каже, че артикулацията на латералните съгласни наподобява артикулацията на преградно-проходните съгласни, но преградата при латералните съгласни не се разрушава, а се запазва по време на учленителния акт. Основен учленителен орган е езикът, чиито краища са отпуснати надолу, докато с предната си част допира участък от областта между зъбите и предната част на твърдото небце, където образува преградата. При това движение отстрани на езика се образува проход (или проходи), откъдето преминава въздушната струя. В зависимост от това дали проходите е един, или са два, латералните съгласни се делят на билатерални (с два прохода) и унилатерални (с един проход).

### 2.1 Латералните съгласни в българския език

Латералните консонанти в съвременния български книжовен език са два – л и л'. Както вече беше отбелязано, при учленението им се образува едновременно преграда и проход, „като преградата поражда консонантния ефект на съгласната [л], а проходите – нейния вокален ефект“ (Tilkov, 1982, p. 102). В

акустическо отношение вокалността се проявява в добре очертана формантна структура, а консонантността – в по-слабия интензитет на формантите и нестабилността им.

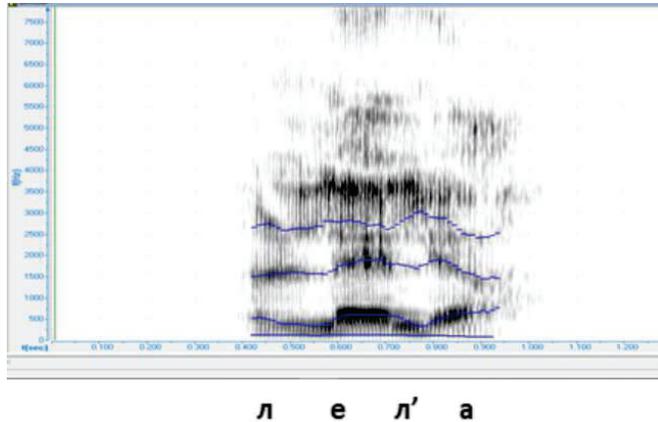
Артикулацията на л се осъществява, като гърбът на върха на езика се притиска плътно в алвеолите и съседните части на горните резци. В същото време предният и средният език с краищата си се отпускат надолу, като се образуват проходи, през които въздушната струя преминава. Този начин за артикулация дава основание на В. Жобов да класифицира консонанта л като ламинален, а не апикален, като предлага за означаването му да се използва знакът **l**, който е част от Международната фонетична азбука (IPA) (Zhobov, 2004, pp. 66–67). Ст. Стойков отбелязва, че консонантът л в българския език е двустранен (билатерален) и е по-твърд от л в чешки, словашки и сърбохърватски, но по-мек от л в руския и в полския език (Stoykov, 1966, p. 116). При учленението на мекия консонант л' преградата се измества назад, като върхът на езика докосва горната част на алвеолите, а краищата на предния език се допират до предната част на твърдото небце (палатума или *palatum durum*). Средната част на езика е леко отпусната надолу (в по-малка степен, отколкото при л), а краищата му продължават да осигуряват проход, през който въздушната струя да премине. Както се вижда, при артикулацията на л' средната част на езика е по-близо до твърдото небце и се променя не само мястото на учленение, а и обемът, с който езикът образува преградата. Според Ст. Стойков „съгласната л' в български език по начин на учленение е едностранна (унилатерална), защото има проход само от едната страна на небцето. По слуховия си характер тя звучи малко по-твърдо от л' в останалите славянски езици, в турски, албански и др., защото в тия езици съгласната л' се учленява със спуснат надолу езиков връх, който дава възможност на предния език са се допре по-силно до страните на твърдото небце“ (Stoykov, 1966, p. 119).



**Фиг. 1.** Артикулация на л (а) (Stoykov, 1966, p. 117) и л' (б) (Stoykov, 1966, p. 118) в българския език

Сравнението между стойностите на първите четири форманта на л и л' показва понижаване на F1 и повишаване на F2, F3 и F4, като най-голямо е при втория формант, срв. л – F1 = 400 Хц; F2 = 1000 Хц; F3 = 2900 Хц; F4 = 3700 Хц.; л' – F1 = 300 Хц; F2 = 1800 Хц; F3 = 3100 Хц; F4 = 3900 Хц (Tilkov, 1983, p. 91). Представените данни още веднъж подкрепят наблюденията, че стойностите на втория формант са тясно свързани с артикулационното място (Kent & Read, 2002, pp. 141–155; Padareva-Ilieva, 2015, p. 56), като при артикулацията на латералните консонанти от значение е и позицията на гърба на езика – издигането на езика води до повишаване на тембъра, а спускането – до понижаване (Zinder, 1979, p. 159).

Също така за консонанта л в българския език може да се отбележи, че артикулацията му е свързана с характера на следващия звук – когато л е пред консонант или заден вокал, преградата е в граничната област между горните резци и алвеолите, а когато е пред преден вокал, преградата се измества в горния край на алвеолите, в резултат от което се повишават стойностите на F2, като разликата може да достигне до 1000 Хц. Д. Тилков установява, че предните гласни и и е оказват силно палатализиращо влияние върху л (подобно на влиянието им върху веларните консонанти г, к, х). От друга страна, ако се съпоставят спектрограмите на л пред преден вокал и на л', се вижда, че въпреки сходните им спектри, при л' са налице и типичните за меките консонанти *отрицателен* (възходящ) преход на F1 и *положителен* (низходящ) преход на F2, които образуват „фуниевидна“ структура (Marinov, 2015), докато при л пред и и е преходите са продължение на вокалните форманти (вж. фиг. 2).

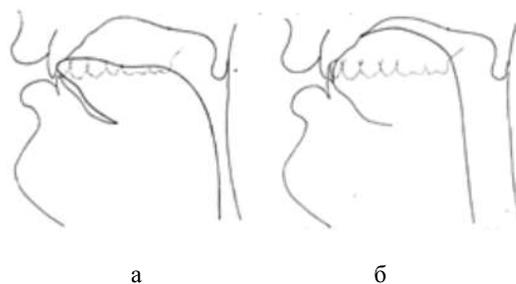


Фиг. 2. Спектрограма на думата леля [л'ел'а]

Наред с двете реализации на латерални съгласни в българския език – алвеоденталната ламинална л (l) и палатализираната алвеодентална л' (l'), в българските диалекти съществуват още няколко латерални консонанта – палатален латерален консонант љ, веларизиран латерален консонант њ, както и силабичен латерален консонант љ. Разнообразието на латерални консонанти вероятно е свързано с отбелязаното за повечето езици от П. Ладефогед и Я. Мадисън вариране на латералните съгласни съобразно фонетичния контекст (Zhobov, 2004, p. 69).

## 2.2 Латералните съгласни в сръбския език

В сръбския книжовен език латералните съгласни също са две – алвеоларният апикален консонант л (l) и палаталният (преднебелен) консонант љ (љ) (Stevanovich, 1986; Morén, 2003). И тук, както и в българския език, е налице вариативност по отношение на основното артикулационно място на латералите. Д. Петрович и С. Гудурич установяват, че при сръбския твърд латерал л (l) артикулацията може да бъде дентална, алвеодентална или алвеолна (Petrovich & Gudurich, 2010, p. 168). Артикулацията на л (l) в сръбския език съвпада донякъде с артикулацията на л в българския език – върхът на езика се опира в алвеолите (и съседните горни резци), където образува преграда, средната и задната част на езика с краищата си са спуснати надолу, като се образува проход, през който преминава въздушната струя (Miletich, 1933, p. 55). При љ (љ) преградата се измества назад, а езикът с предната си част се опира в зоната между твърдото небце и алвеолите (Miletich, 1933, p. 75).



Фиг. 3. Артикулация на л (а) (по Miletich, 1933, p. 58) и љ (б) (по Miletich, 1933, 76) в сръбския език.

За сръбските латерали също може да се отбележи, че двата компонента от артикулацията – преградата и проhodът, влияят на акустическата картина – концентрацията на звукова енергия при преградата и озвучаването на въздушната струя в резонаторите се проявяват като отчетлива формантна структура в спектрограмата, докато преминаването на издишната въздушна струя през прохода от двете страни на езика води до по-нисък интензитет на формантите и проява на специфичен шум. Наред с това при сръбския консонант љ също както при българския л' се наблюдава понижаване на стойностите на F1 и повишаване на стойностите на F2 в сравнение със стойностите на F1 и F2 на л. Ако се сравнят абсолютните

стойности на л и љ пред а в двусричните думи *школа* и *шваба*, може да се установи, че при љ е налице понижаване на F1 с  $\approx 300$  Хц и повишаване на F2 с  $\approx 700$  Хц (Petrovich & Gudurich, 2010, pp. 175, 184). Както в българския език, така и в сръбския реализацията на л пред преден вокал води до повишаване на стойностите на F2, а пред заден вокал – до понижаването им. Наред с това Д. Петрович и С. Гудурич отбелязват, че взаимодействието между консонанта и следващия вокал проличава и при съпоставка на съчетанията: 1) л + компактен вокал (а, о, е) и 2) л + дифузен вокал (и, у). В първото съчетание във формантната структура на л е налице приближаване на F2 до F1 и на F3 до F4, т.е. четирите форманта се групират в две области, между които има значително разстояние. Във второто съчетание F2 на л се отдалечава от F1 и се приближава до F3, т.е. консонантният спектър отново следва вокалния. И. Шкарич отбелязва, че латералът л се характеризира с относително стабилни стойности на първия и третия формант – F1 = 350 Хц; F3 = 2500 Хц, докато стойностите на втория формант са в диапазона от 900 до 1600 Хц в зависимост от следващия звук (Shkarich, 1991, 192–193, цит. по Petrovich & Gudurich, 2010, p. 173). Това отново показва артикулационната зависимост на латералния консонант от следващия вокал и донякъде мотивира вариативността при латералната артикулация, която е регистрирана както в сръбския, така и в българския език.

Наред с това спектрограмите на љ във финална позиция в думи като *Ярославъ* и *Кремъ* са във висока степен идентични със спектрограмите на глайда j, като разликата е във времетраенето на преходите. Изтеглянето на основното артикулационно място в областта на палатума при учленението на љ допринася за лесната му трансформация в j, срв. „Сегментирането и прослушването само на стабилната част на палаталния сонант не води до акустическо възприемане на љ, а по-скоро напомня на съкратено j“ (Преводът е мой – В. М.) (Petrovich & Gudurich, 2010, p. 181). Преход от този тип л' > ѝ регистрира и Ст. Стойков в българските диалекти (Stoykov, 1952).

### 3. Изводи

В резултат от сравнителния анализ на артикулационните и акустическите характеристики на латералните консонанти л (l) и л' (l') в българския език и л (l) и љ (l) в сръбския език могат да се направят следните изводи:

1. Латералните консонанти в двата езика се учленяват чрез симултанно образуване на преграда и проход (проходи) от езика. Разликата е в издигането на гърба на езика и в обема, с който езикът участва в учленението – българският консонант л е ламинален, докато сръбският л – апикален. Освен това се наблюдават различия и в основното учленително място – българският консонант л е алвеодентален, докато сръбският л е по-скоро алвеоларен, т.е. с по-задно учленение в сравнение с българския. При меките консонанти съотношението се запазва: заради по-предното си учленително място българският консонант л' може да се класифицира като посталвеолен (или палатализиран алвеодентален) звук, докато при љ конфигурацията на езика е такава, че контактът с палатума се осъществява върху по-голяма площ, което е предпоставка за леко изтегляне на учленителното място назад, т.е. налице е по-скоро алвеоло-палатална артикулация. Затова например Ст. Стойков отбелязва, че българските латерални звукове са по-твърди от сръбските (Stoykov, 1966, pp. 116–118).
2. В акустическо отношение формантните структури на латералните звукове в двата езика зависят от характера на следващите ги вокали. При контакт с компактен вокал първият и вторият формант на латералния консонант се доближават, а когато следва дифузен вокал, вторият формант на латерала се отдалечава от първия и се доближава до третия. Също така емпиричният материал показва, че по отношение на твърдите латерални консонанти и в двата езика стойностите на първия и на третия формант са относително стабилни, докато стойностите на втория формант варират в зависимост от следващия звук, като повишението на честотите на F2 се свързва с позицията на латералния консонант пред преден вокал.
3. Съпоставката между л и л', от една страна, и л и љ – от друга, показва, че промяната на артикулационното място се отразява върху стойностите на втория формант, като в българския език повишението е с  $\approx 800$  Хц, а в сръбския – с  $\approx 700$  Хц. (Tilkov, 1983, p. 91; Petrovich & Gudurich, 2010, pp. 175, 185).
4. Заради силното взаимодействие между латералните консонанти и звуковете преди или след тях в думата и в двата езика са регистрирани множество индивидуални или диалектни артикулационни варианти, които включват както силно меки (палатални) консонанти, така и твърди (веларизирани) консонанти (Stoykov, 2002; Tsonev, 2008, pp. 128–130). В резултат от това са регистрирани

различни промени, свързани с латералните консонанти, напр. замяна на диалектно ниво на палатален латерал с глайд или множество случаи на вокализация на л сред младото поколение (Padareva-Ilieva & Mitsova, 2017; Padareva-Ilieva & Mitsova, 2020; Mitsova, Padareva-Ilieva & Smakman, 2022).

В заключение може да се обобщи, че между българските и сръбските латерални звукове са налице множество общи черти, но съществуват и различия, върху които трябва да се акцентира, когато се формира артикулационната база при изучаването на някой от двата езика.

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## Studying /l/ Vocalization. Methodological Challenges

### Изучаването на вокализацията на съгласната /л/. Методологически предизвикателства

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**Abstract.** Although the vocalized /l/ has been present in the Bulgarian language for almost half a century, there is no comprehensive methodology that would encompass the phenomenon in many aspects. Our aim in structuring such a methodology is to place the phenomenon at the center of various linguistic theoretical frameworks so that it can be justified and explained. Based on several years of extensive literature research and our own research and experiments, we propose a methodology that examines the vocalized /l/ at different linguistic levels (phonetic and phonological, semantic, pragmatic), foreign language acquisition and teaching, as well as from the perspective of sociocultural factors influencing its dynamics.

**Абстракт.** Въпреки че в българския език вокализираното /л/ присъства от почти половин век, липсва цялостна методология, която да обхване явлението многоаспектно. Нашият стремеж при структурирането на такава методология е да поставим явлението в центъра на различни лингвистични теоретични рамки, за да може то да бъде обосновано и обяснено. Въз основа на продължителни няколкогодишни изследвания на литературата и на собствени проучвания и експерименти предлагаме методология, която изследва вокализираното /л/ на различни лингвистични равнища (фонетично и фонологично, семантично, прагматично), чуждоезиково усвояване и обучение, както и от гледна точка на социокултурните фактори, влияещи върху неговата динамика.

**Keywords:** vocalized /l/, linguistic levels, L2 learning, Sociolinguistics, methodology

**Ключови думи:** вокализирано /л/, лингвистични равнища, чуждоезиково обучение, социолингвистика, методология

## 1. Introduction

### 1.1 /l/ Vocalization

This article is an attempt to develop a methodology for observing /l/ vocalization in languages where this phenomenon appears based on observations and a methodology for Bulgarian vocalized /l/ (Mitsova & Padareva-Ilieva, 2024) as a sociophonetic phenomenon. It refers to pronouncing the lateral consonant /l/ in Bulgarian as a vowel-like allophone, very similar to the English approximant [w]. Many practical and theoretical challenges come with such an analysis. A broad methodology is required in order to make investigations on /l/ vocalization mutually comparable. We propose a methodology based on /l/ vocalization observations at different linguistic levels: phonetic, perceptual, evaluative, phonological, semantic, and practical.

The phonetic level delivers articulatory and acoustic descriptions of vocalized /l/, based on perception and on acoustic measurements. Perceptual data show that vocalized /l/ is perceived and evaluations of this phenomenon reveal whether there are any chances of this issue being at the source of problems, like spelling irregularities. The phonological level deserves attention because the place in the syllable strongly correlates with vocalization of /l/. Semantically, /l/ vocalization may lead to the misinterpretation of the phoneme, and the pragmatic level pays attention to the deliberate use of /l/ vocalization to express irony and sarcasm.

All of these levels are discussed in this article and are followed by a discussion on language planning/management. Such a discussion includes attention paid to learning Bulgarian as a second language, and English as an L2 is also relevant.

## 1.2 Goal of this Paper

The main goal of this paper is to outline a methodology for exploring a specific phenomenon at the segmental language level. It is based on almost ten years of research on a particular sociophonetic feature of contemporary Bulgarian language broadly known (in other languages) as /l/ vocalization. It is a relevant phenomenon, because it does not only occur in Bulgarian but in other languages as well, and seems to have been noticed as recently as 40 years ago (either as marked or unmarked).

## 1.3 Background

Our initial aim was to expand on a new broad research project in Bulgarian linguistic literature. In this literature, we noticed that although there are some mentions in several linguistic papers, there is a lack of a detailed description of Bulgarian vocalized /l/. It is not even included in any of the Bulgarian grammar books and readers (Mitsova & Padareva-Ilieva, 2024). During the process of our research different aspects of this phenomenon gradually appeared, thus we found out that it could be interdisciplinarily observed. Initially we began to explore /l/ vocalization as an isolated articulatory phenomenon in relation to its origins. We continued it in the framework of dialectology as well as diachronically with its historic and regional dispersion. In broader context similar processes were found in other Slavic languages where this phenomenon is already completed in particular phonological positions (as in Serbian) or could be continued nowadays (as in Ukrainian). Exploring /l/ vocalization in Bulgarian, we found it reasonable to start from phonetic and phonological levels. Besides articulation and acoustic/phonetic characteristics, we worked on the description of the occurrence of the vocalization of /l/ in different phonological positions.

Lately we also discovered that this phenomenon seemingly induces specific spelling mistakes, caused by the specific relation between articulation and perception. Especially in those cases in which speakers are negligent in their pronunciation such vocalization could influence the semantics of the utterance too. In addition, some particular communicative situations were observed, where the vocalization of /l/ was used strikingly often in order to achieve certain pragmatic goals. Examples of this kind brought us to the next stage – the need to explore the sociolinguistic stratification of the phenomenon. An interesting aspect of the phenomenon is its manifestation in the field of L2 learning in two aspects – Bulgarian as L2 and English as L2, because of the difficulties of pronouncing lateral /l/ and the confusion between the perception of the phonemes /l/, and /w/ (Mitsova, Padareva-Ilieva & Smakman, 2022).

Summarizing these observations, it appears interesting how a *prima facie* articulatory issue could exert influence on so many linguistic aspects and thus the phenomenon could be explored at particular language levels – phonetics and phonology, semantics and pragmatics. Furthermore, spelling issues, L2 learning and language interference could also be added as aspects relevant to studying /l/ vocalization. And above all, it seems that the phenomenon could be put in the framework of LPP and LMT. The next pages will briefly present these aspects.

## 2. Phonetic and Phonological Aspects

When it comes to a phenomenon that is primarily related to articulation, it is natural to first turn our attention to Phonetics. Of course, we will start with the articulation, but it usually leads to a different perception. We also include acoustic phonetics to show what the acoustic features of this type of articulation are. It is natural to expect that articulation has its variations in different phonological positions as well as depending on prosodic factors. So, in addition to the phonetic level, the phonological level and the phonological positions in which the vocalized /l/ is realized and the variants with which it is realized are an important stage in the study of this phenomenon.

The articulatory methods are already applied in literature investigating /l/ and /l/ vocalization; including using technologies such as EPG (Scobbie & Pouplier, 2010) and MRI (Gick et al., 2002). For Bulgarian vocalized

/l/ such kind of laboratory research was not yet conducted. The phenomenon is nevertheless described articulatorily in a series of publications (Mitsova, Padareva-Ilieva & Smakman, 2022; Padareva-Ilieva & Mitsova 2016; Padareva-Ilieva & Mitsova, 2012). Still, it is not yet present as a realization of /l/ in any official grammar of standard Bulgarian. The reason for this is probably that the phenomenon is relatively new – it has gradually been introduced into everyday, including standard, speech in the last 30 years. Reasons could probably also be found in the difficulty of describing a specific variant of /l/, arising from the character of /l/ itself as a liquid consonant and its different realizations depending on the position in the word and other factors. In this sense “...vocalization represents just one range of the broader articulation continuum (Hall-Lew & Fix, 2012, p. 795) which in Bulgarian could be also presented as a part of the process of hardening the articulation of /l/ (Kochev, 2007, p. 19). Until now vocalized /l/ in Bulgarian is noted in the literature as a short labiovelar sound [ɫ̪], i.e. [ɫ̪], due to its proximity to the articulation of the vowel [u] – rounded lips, no contact between the tongue and the alveodental area and the back tongue rising near the velum. Tentative configurations illustrating the articulation of the vocalized /l/, the standard alveodental /l/ in Bulgarian language, and vowel [u] were proposed in a recent publication (Mitsova, Padareva-Ilieva & Smakman, 2022). Earlier studies with young native speakers of Bulgarian, who pronounced sentences containing words with /l/ in different word positions, yielded a very high frequency of articulation of vocalized /l/ instead of standard alveodental /l/ (Padareva-Ilieva & Mitsova, 2014). They also showed variation in the articulation of this variant in different word positions and phonological contexts, which remain to be studied. Future research, including laboratory research, could also accurately show the articulatory difference between the different variants of /l/ in Bulgarian – labial /l/ in position before labial vowels, velar dialectal /l/ and vocalized /l/.

Acoustic phonetics and its methods have been used to describe vocalized /l/ and to establish an objective distinction between this and other variants of /l/ (Recasens, 2012; Recasens & Espinosa, 2009). Recasens acoustically measured /l/ in different languages and found evidence that dark /l/ could be qualified as vocalized (Recasens, 2012). Nevertheless, there is also evidence that in acoustic measurements it is difficult to distinguish velarized /l/, which can readily vocalize (Hall-Lew & Fix, 2012, p. 795; Ohala, 1974), from a back rounded vowel. There are acoustic measurements of the F1 and F2 of Bulgarian consonant /l/ (Zhobov, 2004; Stoykov, 1961; Marinov, 2019) and insightful acoustic measurements of vocalized /l/ (Mitsova, Padareva-Ilieva & Smakman, 2022) aiming to show that the spectrogram of vocalized /l/ is similar in F1 and F2 frequencies to vowel /u/ than to the standard Bulgarian alveodental laminal /l/.

The description of the vocalized /l/ also includes a description of this variant with its realizations in different phonological context and syllable structure (Scobbie, Pouplier, 2010). A similar description for the Bulgarian language was made within the framework of a study which established that standard /l/ is produced correctly when it is close to a consonant with the same location of articulation as is /t/. And when the neighbouring sound is different by location it tends to become vocalized according to the principle of economy which governs the co-articulation (Padareva-Ilieva, Mitsova, 2014; Farnetani, Recasens, 1999). The ease of articulation of vocalized /l/ and coarticulation processes induce 100% of the participants to produce vocalized /l/ instead of alveodental /l/ after a labial consonant or rounded vowel and in a position in front of a rounded vowel. Padareva-Ilieva & Mitsova (2014) also affirm that word stress is a factor which exerts influence on the articulation of the /l/ consonant. The results confirm previous findings that /l/-vocalization is phonologically conditioned (Leemann, Kolly, Britain, Werlen & Studer-Joho, 2014).

### 3. Perception and Spelling. L2 Learning

/l/ vocalization can also be viewed from the perspective of perceptual sociolinguistics (Aleksova, 2023). Perception of /l/ vocalization itself is an issue of interest when describing the phenomenon in different languages (Hall-Lew & Fix, 2012). A series of studies on Bulgarian makes a connection between articulation, perception and spelling mistakes (Padareva-Ilieva & Mitsova, 2012; Padareva-Ilieva & Mitsova, 2016; Mitsova & Padareva-Ilieva, 2017). These studies show that the increasing normalcy of the vocalized variant instead of the standard /l/ leads to the corresponding perception. Usually vocalized /l/ in Bulgarian is perceived as the closest in pronunciation and perception to the back rounded vowel /u/. This in turn leads to spelling mistakes, where the Cyrillic letter л is replaced by the Cyrillic letter y in over 70% of the students participating in the observation (Padareva-Ilieva & Mitsova, 2020), as well as in a large number of observed texts in online communication (Mitsova & Padareva-Ilieva, 2020).

A similar observation was made by Soroka regarding the acquisition of phonetics and spelling of Bulgarian as L2 by foreign students in Bulgaria (Soroka, 2013). Bulgarians learning English as a second language also have difficulties due to the fact that the vocalized /l/ in Bulgarian is too similar to the English approximant /w/. For most Bulgarians L2 English learners it is difficult to pronounce the English apical [l] which is easily

replaced by the vocalized laminal Bulgarian [l̥]. The result is writing and pronouncing ‘wife’ instead of ‘life’, ‘why’ instead of ‘lie’, ‘white’ instead of ‘light’ (Mitsova, Padareva-Ilieva & Smakman, 2022). This results in semantic ambiguity.

## 4. Semantic Aspects

The phonetic, auditory, acoustic aspects of /l/ vocalization in different languages have already been discussed in the literature but our observations on /l/ vocalization in Bulgarian affirm that there are other interesting aspects that could be included in the consideration of this phenomenon – a semantic and a pragmatic one.

Is it possible for /l/ vocalization to induce semantic ambiguity in communication? Our observations on Bulgarian speech show that it is possible although there are some limitations. Given the nature of the vocalized /l/ in the Bulgarian language, its articulation and perception, as well as the possibility of making spelling mistakes associated with the replacement of the letters л and y, this semantic ambiguity can be observed either in spoken or written speech, both in Bulgarian and in English spoken by Bulgarians. For example:

Той получава. vs. Той поучава.

Toy poluchava vs. Toy pouchava.

‘He receives’ vs. ‘He preaches’

Момичето със синята блуза vs. Момичето със синята буза

Momicheto sas sinyata bluza vs. Momicheto sas sinyata buza

‘The girl with the blue blouse’ vs. ‘The girl with the blue cheek’

(Mitsova, Padareva-Ilieva & Smakman, 2022)

Той лобира vs. Той обира

Toy lobira vs. Toy obira

‘He’s lobbying’ vs. ‘He’s robbing’

(Padareva-Ilieva & Mitsova, 2012)

and in English:

‘My wife is bad’ vs. ‘My life is bad’

It is true, however, that the larger context of the conversation or text could clarify the meaning and dispel the confusion. In fact, these examples are limited in number, and perhaps this is the reason why the semantic aspect has not been considered too thoroughly. Moreover, in oral speech, in specific phonological positions vocalized /l/ in combination with a back rounded vowel could lead to diphthongization – блуза (bluza) ‘blouse’ – бѹза (bluza – bŭza), i.e. the vocalized /l/ should not merge with the following vowel, but should be pronounced as a short labiovelar segment. In most cases, however, according to our observations, hyperarticulation is not a characteristic of oral speech, but coarticulation processes and speech economy lead to a more relaxed articulation, and this will lead to the pronunciation of two words with different meanings as complete homophones – блуза ‘blouse’ – буза ‘cheek’ [buza – buza]; слух ‘hearing’ – сух ‘dry’ [suh – suh]; полза ‘benefit’ – поза ‘pose’ [poza – poza].

## 5. Pragmatic Aspects

An even more interesting part of studying this phenomenon is the pragmatic aspect. Our observations show that some speakers use vocalized /l/ intentionally in their utterances, with an emphasis on this type of articulation aiming at irony or even sarcasm through a phonostylistic effect (Mitsova, Padareva-Ilieva & Smakman, 2022; Mitsova & Padareva-Ilieva, 2020). This stylistic effect can be realized in both written and spoken speech. An important aspect here is the awareness of the difference between the standard articulation of the lateral consonant /l/ and its vocalized variant. For many speakers who do not make this distinction the phonostylistic effect will not be achieved.

## 6. Sociolinguistic Aspects

From the point of view of dialectology and linguistic geography, the emergence and development of the vocalized /l/ can be traced back diachronically. In our earlier publications (Padareva-Ilieva & Mitsova, 2012, 2014), we have concluded that for the Bulgarian language the process of vocalization of /l/ is a relatively new linguistic phenomenon. From the linguistic literature in Bulgarian studied so far, it is clear that it was first described as a dialectal feature by the dialectologist Stoyko Stoykov in the middle of the 20th century (Stoykov, 1962). Later, in the 1970s, the pronunciation of /ǔ/ as a "new" and "affected" variant of /l/ in the speech of young Bulgarians is mentioned in studies marking this speech phenomenon. However, they did not set out to study and analyze its increasing expansion from a phonetic phenomenon of youth slang to speech manifestations in the media language (Holiolchev, 1974; Naydenova, 1998; Murdarov, 2003; Mladenov & Sotirov, 1992; Tanev, 1995). Nevertheless, it is not enough to consider this phenomenon only from the point of view of dialectology, as an interdisciplinary approach would give more complete results.

In the process of the linguistic description of a given linguistic phenomenon, conclusions are invariably reached about its social stratification, because a full-fledged study also goes through an observation of the society in whose language this linguistic feature exists. Thus, the linguistic phenomenon becomes an object of sociolinguistic research. When studying the perception of [l] and [ǔ] (Padareva-Ilieva & Mitsova, 2012, Padareva-Ilieva & Mitsova, 2016; Mitsova & Padareva-Ilieva, 2017), it becomes clear that part of the conclusions has always been related to the classification of the interviewees' attitudes towards this speech phenomenon. This means that an ethno-methodological approach can be applied to the study of the vocalization of /l/, where the observations are from the point of view of conversational analyses. But since we are talking about different social groups in whose speech the vocalization of /l/ manifests itself more or less, the variational approach can be adapted, by which to investigate what type of linguistic marker the pronunciation of /l/ as [ǔ] is (Mitsova, Padareva-Ilieva & Smakman, 2022; Mitsova & Padareva-Ilieva, 2020).

## 7. Language Management Aspects

The dynamics in the pronunciation of /l/ as [ǔ] in the speech of modern Bulgarians can be traced through the perspective of LPP and Language Management (Nekvapil, 2011, 2016), as it is inevitable to compare this contemporary socio-phonetic phenomenon with the state language standard. According to Language Management Theory, any deviation from the standard set in the prescriptive linguistic literature can be traced as a process consisting of four stages constituting the 'language management process': (1) noting; (2) evaluation; (3) adjustment design, and (4) implementation of the adjustment design.

Language Management itself takes place at two levels – a micro level known as 'simple management' and a macro level called 'organized management'. According to LMT methodology that we have applied in our previous studies, in purposeful interviews our informants share their personal experiences in communicative situations where a process of Simple Language Management is carried out. It starts with pointing out the pronunciation of /l/ as [ǔ] as a deviation from the language standard (Stage 1) and moves through Stage 2 – conversation and awareness of the 'wrong' pronunciation. In some cases, Stage 3 is reached, at which the individual decides to adjust the /l/ vocalization in accordance with the prevailing norm. In other cases, the actual implementation of the correction contemplated at Stage 3 is reached. In recent years, a more serious scientific interest has been noticed on the part of the so-called 'language institutions', which through the perspective of LMT can undoubtedly be related to the macro level of 'organized management'.

## 8. The Future

Based on the study of the literature on the topic from recent decades, as well as on the basis of our own studies and observations, we have structured a methodology for studying vocalized /l/. Below are three important motivations for continuing this research; in Bulgaria and in close-by countries with the same phonetic variability of this lateral.

It could, first of all, serve to study this linguistic phenomenon in other languages in which vocalization of /l/ is in a process of rapid development or ended long ago and has not been studied in a multi-faceted manner. On the basis of narrow research on phonemes related to /l/ and /l/ itself, language change can be documented and predicted. The interplay of pronunciation habits (including ease of articulation), semantics, pragmatics, sociolinguistics, phonology, and several other social, historical, and linguistic factors, can help lay bare how

phonemes – particularly liquids in general – change shape in daily discourse; and how new pronunciations, in the long run, become part of the codified language (or not). Theoretical/historical phonology can only help in a limited way in explaining the changes that these phonemes are undergoing in various languages at the same time, and seemingly independently from each other. Combining theoretical/historical and empirical forces may yield the best explanations.

Another and more pressing reason to continue to study /l/ is to create awareness in both native speakers of Bulgarian (and other countries in which the main language is undergoing similar inter-generational sound changes) and learners of this language to understand how different generations of speakers may produce, perceive and evaluate one and the same phoneme, because of notable and ongoing changes in its articulatory realisations. This would mainly be an awareness exercise; typically, one that teachers of Bulgarian will also learn from and benefit from.

A third and final reason is purely sociolinguistic/sociophonetic; inter-speaker and intra-speaker variation of the realization of /l/ in Bulgaria. The correlations between the various allophones and speaker characteristics (most importantly age, region, and gender identity) can be used to study how this sound is a social marker and whether or to what degree it is used consciously to identify oneself in some way or other. Intra-speaker variation can be studied to find out how transient certain allophonic realizations of /l/ are, the assumption being that high intra-personal variation may point to an ongoing change, either away from or towards a new pronunciation. Individuals may vary because they are adopting and trying out new pronunciations and are assumed to constantly be negotiating and renegotiating their (conscious) less stable pronunciation choices and their (less conscious) stable habits. For both inter- and intra-speaker variation studies, a strict methodology is required, in which at least ten tokens in both social and phonological/phonetic contexts per speaker are required, as well as a high number of speakers, consensus transcriptions, acoustic measurements, and statistical proofing. In other words, much research is needed. The outcomes are likely to overrule popular debates on this and similar phenomena, which is one of the main contributions of sociolinguistics.

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## Perception of [ǔ] in Place of [l] Among Modern Bulgarians

### Перцепция на съгласния звук [ǔ], използван вместо [l], от съвременни българи

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**Abstract.** This paper presents an experimental study on the perception of [ǔ], focusing on four perceptual styles that vary by context and attentional demand. These styles include: (a) a single isolated word with [ǔ]; (b) a group of three words, one containing [ǔ]; (c) a short sentence with one [ǔ] word; and (d) a short paragraph of three or four sentences including one [ǔ] word. As the amount of contextual material increases, the listener's attention span typically decreases. The study aims to determine whether listeners can reliably recognize [ǔ] across these different perceptual styles and to establish a hierarchy of recognition success. Data were gathered through an online, non-representative survey involving participants of various ages. The analysis also takes into account existing research on the emergence and increasing frequency of [ǔ] in contemporary spoken Bulgarian, particularly among younger speakers. The study confirms that the perception of [ǔ] in place of [l] depends on the perceptual style: recognition rates are highest in isolated words and lowest in coherent texts, while socio-demographic factors show little influence.

**Абстракт.** В статията се изследва експериментално перцепцията на [ǔ] в няколко вида контекст, които означаваме терминологично като перцептуален стил. Те се отличават по степента на внимание на слушащия към обекта, който е речево явление. Подбрани са стилове, при които вниманието намалява поради множествеността на елементите от контекста: (а) отделни думи, (б) 3 думи, между които само в една има [ǔ], (в) кратко изречение с единична поява на [ǔ], (г) кратък текст от 3–4 изречения с поява на [ǔ]. Целта е да се придобият знания за това дали в различните стилове се разпознава [ǔ] и каква е йерархията между тези стилове според успешността на разпознаване на [ǔ]. Проучването се базира на непредставително анкетно проучване онлайн с хора на различна възраст. В статията се опираме върху всички изследвания, които засягат проблема с появата на [ǔ] в речевата практика и масовизирането на този вариант особено сред по-младите поколения в българското общество. Проучването потвърждава, че разпознаването на [ǔ] вместо [l] зависи от перцептуалния стил: най-висока е разпознаемостта при отделни думи и най-ниска – при свързан текст, като социално-демографските фактори оказват слабо влияние.

**Keywords:** labiovelar approximant [ǔ], perceptual styles

**Ключови думи:** лабиовеларен апроксимант [ǔ], перцептуални стилове

## 1. Introduction

### 1.1 The Perception of [l]

The replacement of the lateral [l] with a labiovelar approximant, not only in colloquial, everyday Bulgarian, but also in formal contexts, was described already in the 1970s. At first, it was characterized as a sporadic phenomenon observed in the speech of Sofia students (Holiolchev, 1974, pp. 32–33). Just a few years later, the use of [ǔ] or

“dark”, velarized [ɫ] instead of [l] around back vowels was reported in the speech of 30-year-old Bulgarians (Holiolchev, 1980, p. 197).

Half a century seems enough for a decisive change in favor of the vocalization of [l]. In fact, the pronunciation of the hard lateral consonant has become rare; [l] is giving way to the labiovelar [w], even, or in some cases to the velar approximant [ɰ] (Zhobov, 2004, p. 65). According to some researchers, the replacement of the hard [l] with the labiovelar approximant can be linked to the Western Bulgarian origin of the speakers, and thus to the dialects spoken in this region, highlighting that it is somewhat surprisingly observed in the language of the intelligentsia (Kochev, 2007, p. 22) – a status class consisting primarily of university-educated individuals, who strive to shape the cultural, ethical, and political values of the nation they belong to, such as teachers, TV and radio presenters. Mitsova et al. (2022, p. 310) hypothesize that since the phenomenon is associated with the prestigious youth slang spoken in the Bulgarian capital Sofia, it has easily spread to other areas of the country, not without the help of the media (Mitsova et al., 2022, p. 310). The authors of more recent studies on the issue are unanimous that [ɰ] is now even perceived as part of the Bulgarian pronunciation standard (Naydenova, 1998; Murdarov, 2001; 2003; Padareva-Ilieva & Mitsova, 2014; Burov, 2013; Soroka, 2013; Albul & Soroka, 2014; Aleksova, 2016, inter alia). It is worth mentioning that the vocalization of [l] is in fact part of a general trend that affects languages from different language families (see, e.g., Tisheva, 2012; detailed overview in Mitsova et al., 2022, pp. 305–306).

The approximant [ɰ] in Bulgarian is expected to occur instead of [l] in various phonetic environments: word-initially and word-finally, after back and before mid-vowels, after front vowels and before velar consonants, after consonants and before mid-vowels, before back and mid-vowels, and before consonants (Albul & Soroka, 2014, p. 76; Padareva-Ilieva & Mitsova, 2012; Bozhanina, 2016, p. 116). The variant does not appear before front vowels.

The systematic replacement of [l] with [ɰ] has some interesting implications. It leads to the emergence of a new type of spelling problem, especially in loanwords, for example Уиндолс (*Uindols*) instead of Уиндоус (*Uindous*) (‘Windows’); Ауцхаймер (*Autshaymer*) instead of Алцхаймер (*Alshaymer*) (‘Alzheimer’) (Padareva-Ilieva & Mitsova, 2012, 2020). The [ɰ] speech also has a negative impact on the acquisition of similar lateral L2 approximants. For example, the transfer of phonotactics from Bulgarian learners of German leads to realizations of the palatal German [ɫ] as [ɫ] or [w] before back vowels (Dimitrova, 2017, p. 184). English teachers report that in the place of the apical English [l] the laminal [l] nowadays is replaced by [w] (Mitsova et al., 2022).

On the other hand, teachers of Bulgarian as a foreign language struggle with the discrepancy between the normative description of the lateral consonant that can be found in the literature and the textbooks and the reality of the spoken language. Even though the preference for the use of the “new”, “lazy” [l] might be considered by some linguists and non-specialists a feature of non-standard Bulgarian or a result of articulation disorder (lambdacism), it is so common, that many do not identify [ɰ] as different from [l].

## 1.2 Hypotheses

In this paper, we use empirical data from a non-representative survey to test the following hypotheses:

- A significant proportion of respondents do not recognize the mispronunciation of [ɰ] in place of [l] (here, we will also use the term [l] substitution).
- The recognition of the pronunciation of [ɰ] in place of [l] depends on the immediately following vowel or consonant.
- The recognition of the pronunciation of [ɰ] in place of [l] depends on the perceptual style: listening to (1) a short coherent text, (2) a simple sentence, (3) a group of three words, and (4) a single isolated word. These perceptual styles differ in the degree of attention paid to the spoken text; the attention decreases as text length increases (Labov, 1966; Aleksova, 2023).
- The recognition of the pronunciation of [ɰ] in place of [l] depends on the socio-demographic characteristics of the respondents, and we believe that the most significant factor is the respondents' educational background (philological vs. non-philological), followed by age, as our preliminary observations suggest that the [l] substitution becomes more common with each successive generation.

## 2. Methodology

### 2.1 Materials

After forming the hypotheses for empirical testing, we proceeded to create a model of the positions in which [ũ] occurs in place of [l]. These are all cases in which [l] does not immediately precede the front vowels [ɛ] and [i]. We compiled a list of positions, illustrated by suitable examples, which we then used in a questionnaire: before the vowel sounds [a], [ɤ], [ɔ], and [u]; before bilabial, labiodental, alveodental, alveolar, palatal, and velar consonant sounds. We then selected the elements for each perceptual style so that there were no word repetitions:

1. short texts of 3–4 sentences with each of the listed [l] positions
2. simple sentences that contain one word with one [l] position
3. sequences of three words with all [l] positions
4. single words with [l] in the selected positions

The tasks for recognizing [ũ] are arranged in a deliberately chosen order, starting from short texts consisting of 3 to 4 sentences, moving to simple sentences, then to a section of lists of 3 words, and finally one-word prompts. The motivation behind this ordering is that placing the perceptual style with the highest concentration of attention at the beginning would affect the perception of the text in perceptual styles with lower concentration of attention, which will distort the data.

### 2.2 Participants

We chose the following socio-demographic determinants of recognition of [ũ]: gender, age (up to 19, 20 to 30, 31 to 40, 41 to 50, 51 to 60, 61 to 70, over 70), educational level (primary, secondary or secondary special and higher), academic major (philological or non-philological), birthplace and place of residence (the capital Sofia, regional city, non-regional city, village, abroad). These characteristics were included in the questionnaire, and they were then considered as independent variables (attribute factors) that were related to the perception of the [l] substitution.

The next step was to prepare an anonymous Google Form questionnaire. The study is not representative, so the results are valid only for the group surveyed. We tested the survey among our acquaintances, philologists and non-philologists, to make sure that it was correctly constructed and would actually verify the hypotheses put forward. A total of 201 responses were collected. The answers by one of the respondents were dismissed due to their irrelevancy. Therefore, the total number of surveys was 200. Table 1 summarizes the distribution of respondents by gender, educational level, age group, academic major, and place of residence.

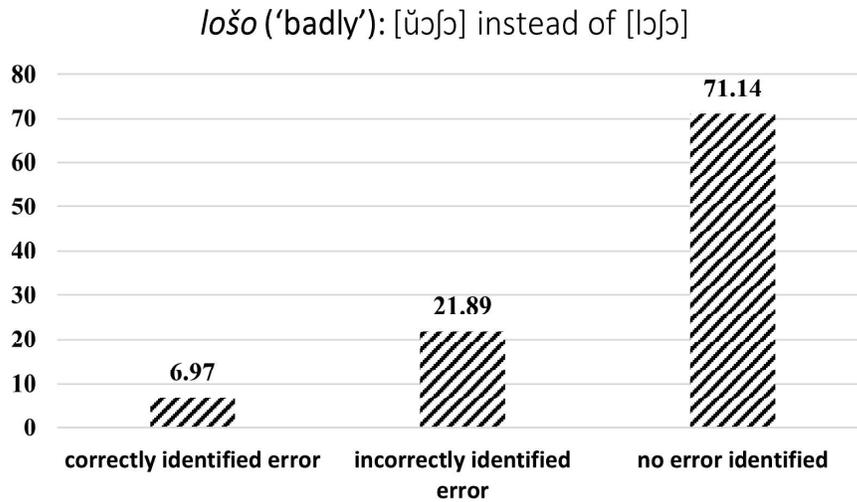
**Table 1.** Respondent distribution by category (N = 200).

Category	Group	Percentage
Gender	Women	72.14
	Men	27.86
Educational Level	Primary	6.96
	Secondary/Vocational	22.89
	Higher	70.15
Age Group	<19	8.45
	20–30	26.87
	31–40	14.43
	41–50	30.85
	51–60	10.45
	61–70	7.46
	>70	1.49
Academic Major	Philological	45.77
	Non-philological	54.23
Place of Residence	Sofia	53.73
	Regional city	27.86
	Non-regional city	2.98
	Village	2.48
	Abroad	12.94

### 3. Results

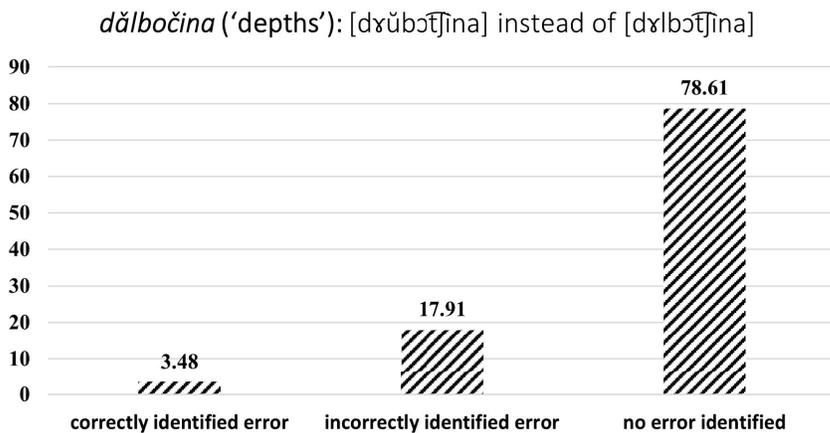
#### 3.1 Recognition of [ǔ] in Place of [l] in Short Texts of 3–4 Sentences

The first short text contains the following sentences in which [l] is followed by the vowel [o]. Only 6.96% of respondents correctly indicated the mispronunciation of *lošo* ‘badly’ as [ǔɔʃɔ] instead of [lɔʃɔ]. Another 21.89% reported a different (non-existent) error, while 71.14% indicated that they perceived no error at all (Figure 1). These results suggest that in the context of a short narrative, the substitution of [l] with [ǔ] often goes unnoticed: a total of 93.03% of respondents either failed to detect the mispronunciation or misidentified the error.



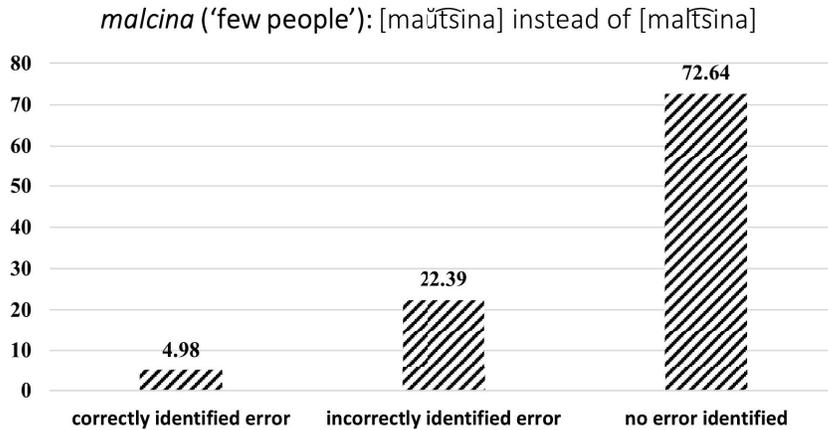
**Figure 1.** Recognition of [ǔ] in place of [l] in the stimulus text: “Yesterday morning the students played a game in the schoolyard. Ivan fell and hurt his leg badly (*lošo*). They took him to the doctor’s office” (in %; N = 200).

In the second short text, a significant proportion of respondents did not hear the mispronunciation (Figure 2). The variant [ǔ] appears before the voiced consonant [b]. Only 3.48% of respondents correctly identified the mispronunciation, 17.91% indicated some other (non-existent) error, and 78.61% heard no error. If the respondents who indicated different errors and those who thought there was no error at all are added together, the result is 96.52%, which is an even higher percentage than the one for the previous text.



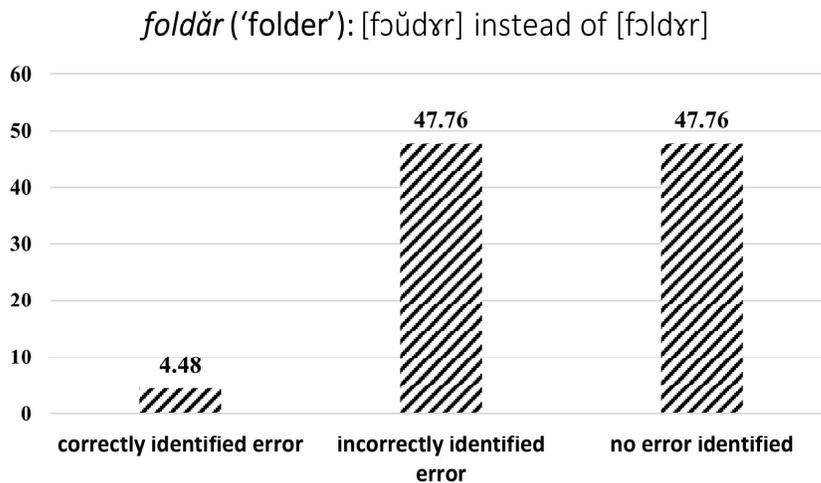
**Figure 2.** Recognition of [ǔ] in place of [l] in the stimulus text: “Every day they dive to different depths (*dǎlbočina*). Interesting discoveries are expected” (in %; N = 200).

In the third text, [ǔ] is followed by an alveodental [ʃ] consonant (Figure 3).



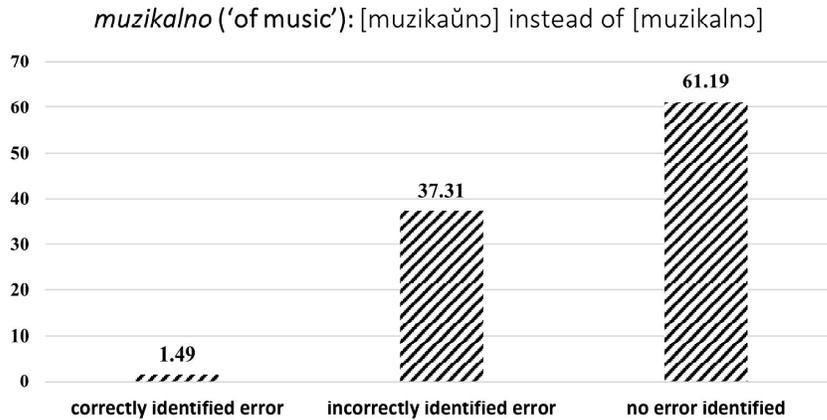
**Figure 3.** Recognition of [ɯ] in place of [ɪ] in the stimulus text: “Few people (*malcina*) know that the renovation of the school starts today. Harmless paints will be provided. The renovation will be completed before September 15” (in %; N = 200).

The percentage of the participants who identified the pronunciation of [ɯ] is very small: 4.97%. A total of 95.03% did not recognize the [ɪ] substitution before an alveodental consonant. In the fourth text, [ɯ] is followed by the alveodental consonant [d] (Figure 4).



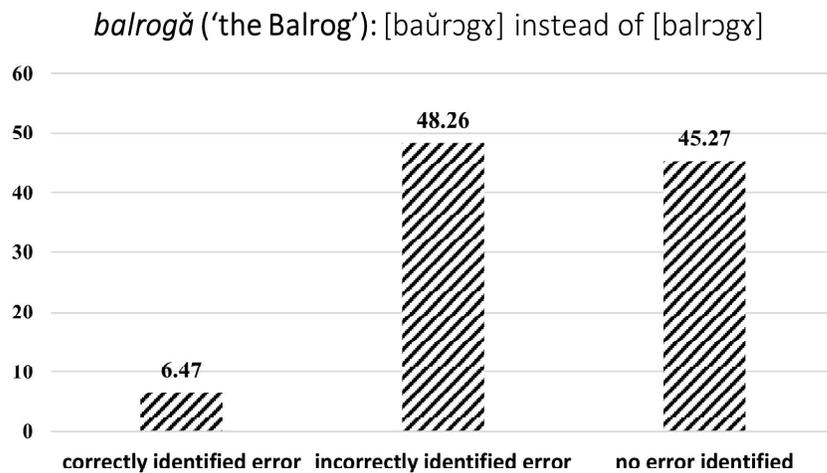
**Figure 4.** Recognition of [ɯ] in place of [ɪ] in the stimulus text: “The fourth short text is this: Yesterday morning, he was searching for a file on his computer. He needed it for an important article. Finally, he found it incorrectly saved in another folder (*foldār*)” (in %; N = 200).

Only 4.47% of respondents correctly recognize the mispronunciation of [ɯ] in place of [ɪ]. A further 47.76% indicated a different “error”, most often commenting on the use of the loanword *foldār*, while another 47.76% perceived no error at all. A total of 95.52% did not detect the pronunciation of [ɯ] in place of [ɪ] before the consonant [d]. The fifth short text, the variant [ɯ] is followed by the alveolar consonant [n] (Figure 5).



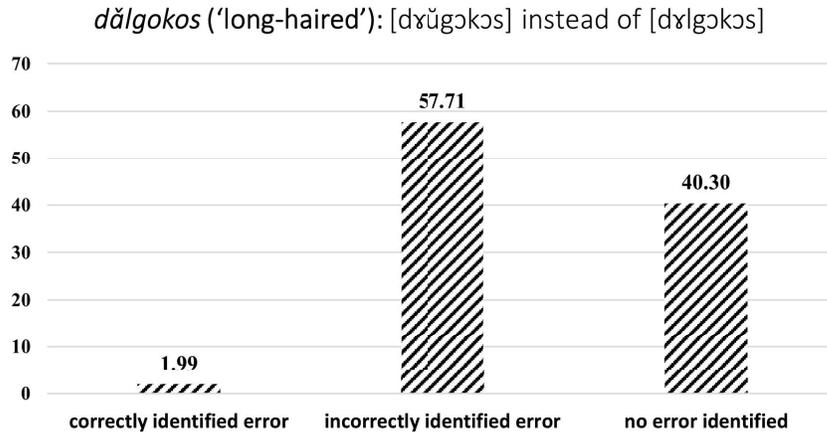
**Figure 5.** Recognition of [ũ] in place of [l] in the stimulus text: “Today you will hear a new piece of music (*muzikalno*). It can hardly be considered as belonging to a single genre” (in %; N = 200).

As shown in Figure 5, the number of respondents who recognized the substitution of [l] with [ũ] is even lower than in the previous cases – only 1.49%. A total of 98.5% of respondents either identified a different (non-existent) error (37.31%) or indicated that there was no error at all (61.19%). This very high percentage demonstrates that the mispronunciation of [ũ] before the sonorant [n] largely goes unnoticed. In the sixth text, [ũ] appears before the sonorant [r] (Figure 6).



**Figure 6.** Recognition of [ũ] in place of [l] in the stimulus text: “The Balrog (*balrogă*) appears in Tolkien's most iconic fantasy work. They were thought to be fire spirits, most of whom were slain at the end of the First Age of Middle-earth” (in %; N = 200).

Compared to the fifth text, the number of respondents who recognized the pronunciation of [ũ] as an error is slightly higher, 6.47%. An additional 48.26% incorrectly identified a different type of error. Most of these participants commented on the loanword *balrog*, noting that it should be pronounced with the full-form definite article (*balrogăt*) instead of the short form (*balrogă*). The remaining 45.27% indicated that there was no error. In total, 93.53% did not perceive the pronunciation of [ũ] in place of [l], which once again represents a substantial majority. In the seventh short text, the variant [ũ] precedes the velar consonant [g]. The results for the recognition of the [l] substitution can be seen in Figure 7.



**Figure 7.** Recognition of [ǔ] in place of [l] in the stimulus text: “Yesterday, a robbery took place in a shop in the city center. The cameras captured a long-haired (*dālgokos*) man entering at night” (in %; N = 200).

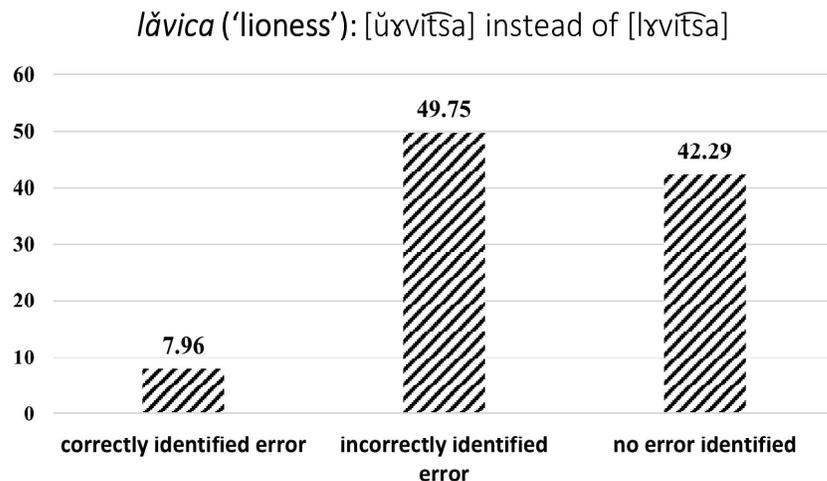
A very small group of participants recognized the substitution of [l] with [ǔ] in *dālgokos*: 1.99%. A total of 98.01% did not hear the [ǔ]. Of these respondents, 57.71% indicated some other non-existent error, and 40.30% wrote that there was no error. Again, the percentage of those who did not recognize the pronunciation of [ǔ] was very high.

In conclusion, the analysis of recognition rates for [ǔ] in place of [l] in short texts of three to four sentences reveals a consistently low percentage, ranging from 1.93% to 6.96%.

### 3.2 Recognition of [ǔ] in place of [l] in a simple sentence

The questionnaire contains several simple sentences with one word in which [l] is replaced with [ǔ]. For this second type of perceptual style, the attention to the text being listened to should be greater than when listening to a short text of 3 to 4 sentences. According to our hypothesis, it should affect the results, and there should be greater recognition rate of the pronunciation of [ǔ] in place of [l]. Let us analyze the data from the simple sentences batch.

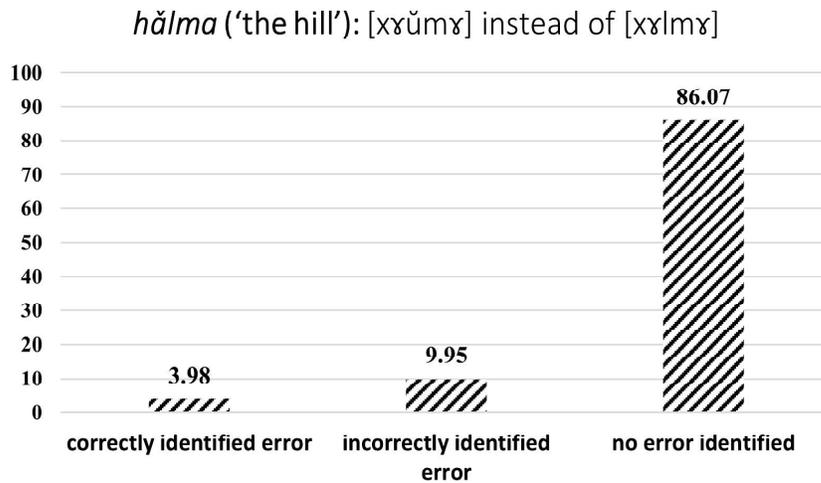
In the first simple sentence, the variant [ǔ] appears before the vowel [ɪ]. The answers collected in the questionnaire can be seen in Figure 8.



**Figure 8.** Recognition of [ǔ] in place of [l] in the stimulus sentence: “In the zoo there is a lioness (*lāvica*)” (in %; N = 200).

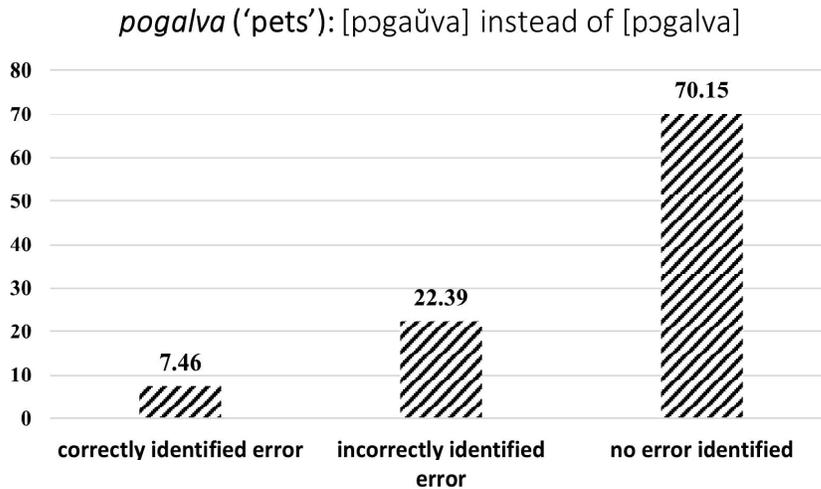
In comparison to the data from the seven short texts, the percentage of the respondents who have identified the pronunciation of [ǔ] in place of [l] is a bit higher, at 7.96%. Those who indicated another error were 49.75%, and those who said there was no error were 42.29%. A total of 92.04% did not recognize the mispronunciation.

In the second sentence the sound [ũ] precedes the sonorant [m] (Figure 9).



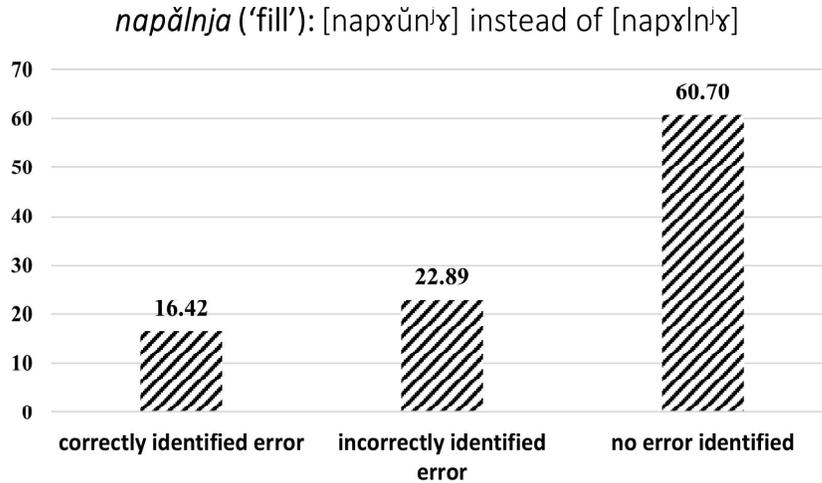
**Figure 9.** Recognition of [ũ] in place of [ɪ] in the stimulus sentence: “Ivan is up on the hill (*hālma*)” (in %; N = 200).

It is clear that 3.98% heard the pronunciation of [ũ] in place of [ɪ] in the word form *hālma* ‘the hill’. A total of 96.02% did not recognize this error. Of these, 9.95% indicated some other error (mostly the redundant use of the adverb *gore* ‘up’), and 86.07% wrote that there was no error. In the third simple sentence, the variant [ũ] is pronounced before a labiodental consonant [v] (Figure 10).



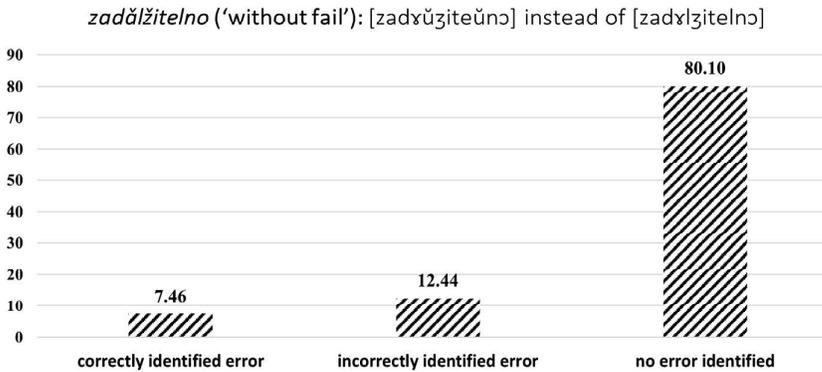
**Figure 10.** Recognition of [ũ] in place of [ɪ] in the stimulus sentence: “She often pets (*pogalva*) the child” (in %; N = 200).

Figure 10 shows that 7.46% recognized the mispronunciation of [ũ] in place of [ɪ] in *pogalva* ‘pets’. The overall percentage of those who did not recognize the phenomenon was 97.54%, with 22.39% indicating another error (some have suggested a different verb, *gali*, as a more suitable synonym to *pogalva*) and 70.15% stated that there is no error. Again, although by a small margin, the percentage of those who recognized the error was slightly higher compared to the corresponding percentage for the same triple of words embedded in short texts. There was an error in the coding of the results in the fourth simple sentence, so it will not be commented on here. In the fifth simple sentence, the position of the consonant [ɪ] is before the palatalized nasal sonorant [n] (Figure 11).



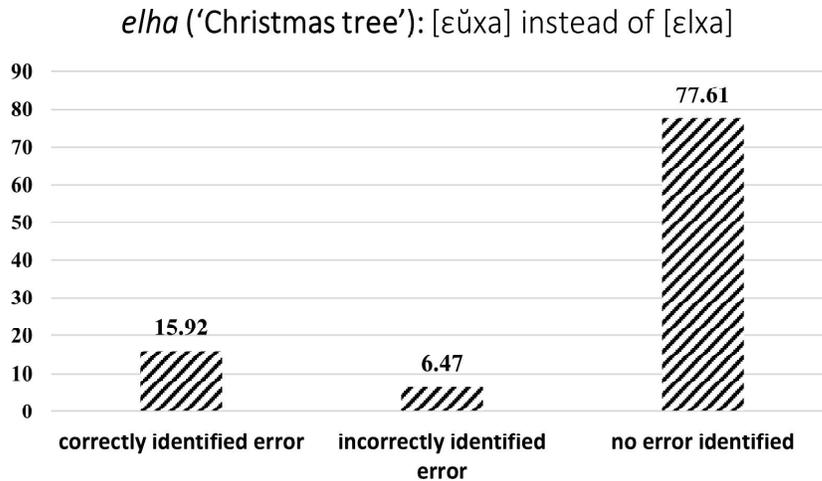
**Figure 11.** Recognition of [ŭ] in place of [l] in the stimulus sentence: “I will fill (*napǎlnja*) a glass with water” (in %; N = 200).

A much higher percentage of respondents recognized the substitution of [ŭ] for [l] in *napǎlnja* ‘fill’, 16.42%. The remaining 83.56% did not identify the substitution: 22.89% indicated various non-existent errors and 60.70% stated that there was no error. In the sixth sentence [ŭ] is followed by the postalveolar [ʒ]. The results are illustrated in Figure 12.



**Figure 12.** Recognition of [ŭ] in place of [l] in the stimulus sentence: “They will come to the meeting without fail (*zadǎlžitelno*)” (in %; N = 200).

Compared to the results for the previous simple sentence, the proportion of participants who recognized the [ŭ] variant decreased to 7.46%. An additional 12.44% identified a different, non-existent error, while 80.10% reported no error at all, bringing the total share of those who did not recognize the substitution to 92.54%. In the seventh simple sentence the variant [ŭ] is followed by a hard velar consonant, [x] (Figure 13).



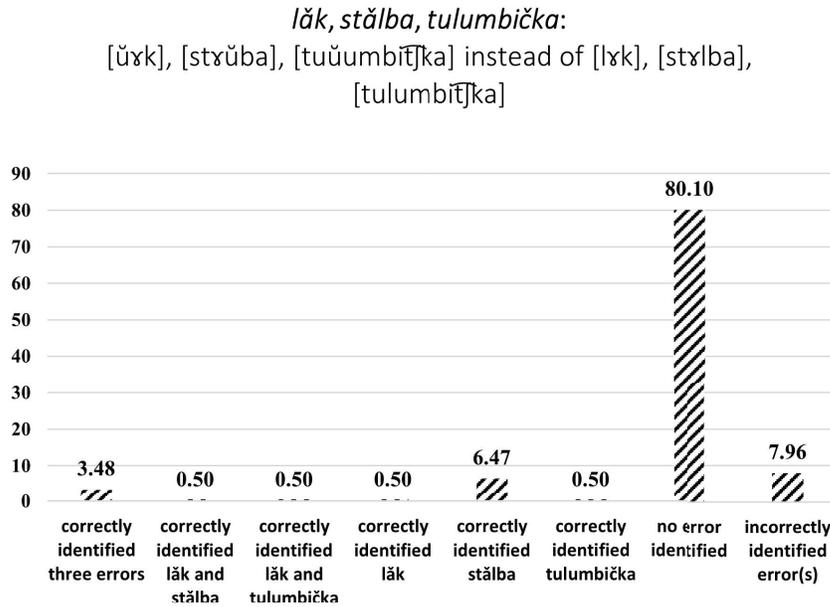
**Figure 13.** Recognition of [ɛ̥] in place of [l] in the stimulus sentence: “For New Year, we have a nice Christmas tree (*elha*)” (in %; N = 200).

In this case, the percentage of people who recognized the occurrence of [ɛ̥] in place of [l] in *elha* ‘tree’ is 15.92%, higher than for the sixth sentence. A total of 84.08% did not recognize the mispronunciation, with 6.47% of them indicating another error (e.g., the tree is for Christmas, not New Year), and 77.61% wrote that there was no error.

The analysis of mispronunciation perception in simple sentences reveals a slight increase in the rate of correctly recognized [ɛ̥] variants compared to the results from the previously examined perceptual style (short texts of 3–4 sentences). In the following section, we explore the correlation between the number of true positives and yet another perceptual style: the 3-word list.

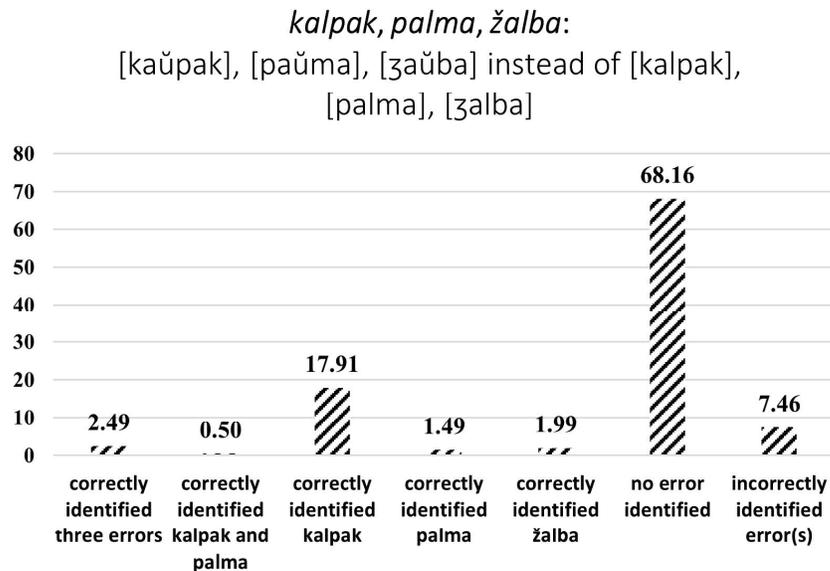
### 3.3 Recognition of [ɛ̥] in Place of [l] in a List of 3 Words

The first group of 3 words includes *lāk* ‘bow’, *stālba* ‘ladder’ and *tulumbička* (a type of deep-fried dessert). The variant [ɛ̥] occupies the word-initial position and is followed by [ɣ] in the first word, it is between [ɣ] and [b] in the second, and between two [u] in the third. Figure 14 presents the distribution of the answers. A small group of respondents detected the mispronunciation of [ɛ̥] in place of [l] in all the three words, 3.48%, 0.5% heard this feature in *lāk* and *stālba*, 0.5% noticed [ɛ̥] in *lāk* and *tulumbička*, 0.5% only in *lāk*, 6.47% in *stālba*, and 0.5% in *tulumbička*. Some respondents wrote down non-existent errors (7.96%), but the majority did not detect any errors at all (80.1%). A total of 11.95% recognized the [l] substitution in at least one word.



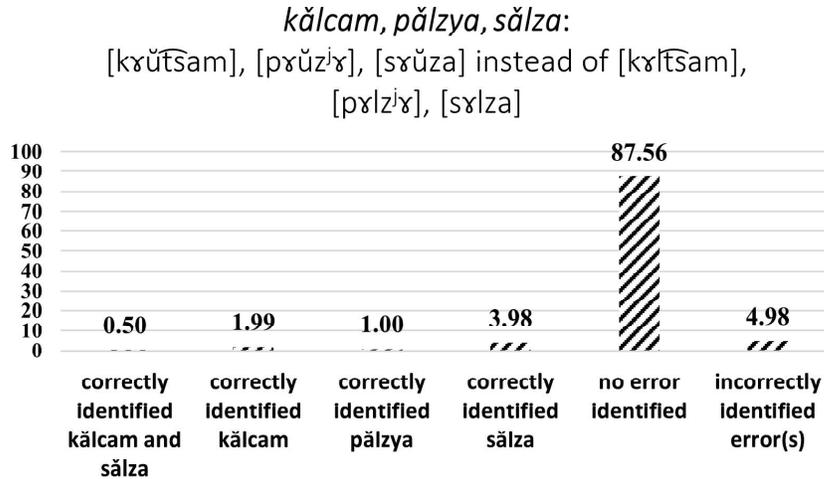
**Figure 14.** Recognition of [ǔ] in place of [l] in *lāk, stālba, tulumbička* (in %; N = 200).

The next sequence of 3 words is *kalpak* (a type of hat), *palma* ‘palm’, *žalba* ‘appeal’. The variant [ǔ] is followed by bilabial voiceless consonant [p], sonorant [m], and bilabial voiced [b], respectively (Figure 15). Only 2.49% detected the mispronunciation in each of the three words, 0.5% found it in *kalpak* and *palma*, 17.91% only in *kalpak*, 1.49% in *palma*, 1.99% in *žalba*. A total of 68.16% did not indicate any error and 7.46% did not find the error correctly. Almost a quarter of the respondents, 24.38%, heard [ǔ] in at least one of the words.



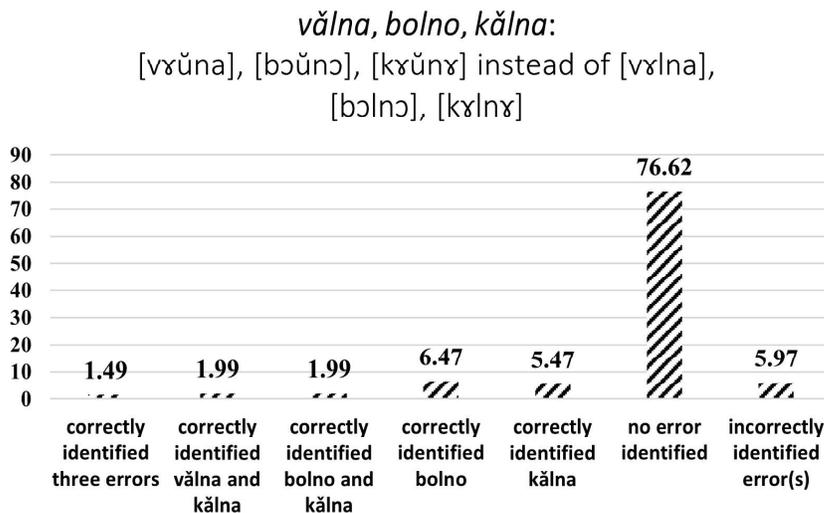
**Figure 15.** Recognition of [ǔ] in place of [l] in *kalpak, palma, žalba* (in %; N = 200).

The third sequence of 3 words consists of *kālcam* ‘(to) mince’, *pālzya* ‘(to) crawl’, and *sālza* ‘tear’. The variant [ǔ] is followed by hard alveodental [tʃs], palatalized alveodental [zʲ], and its counterpart [z]. Figure 16 shows that 0.5% of the 200 participants detected the pronunciation of [ǔ] in place of [l], 1.99% recognized it only in *kālcam*, 1% in *pālzya*, 3.98% in *sālza*. A total of 87.56% did not indicate any error, and 4.98% did not correctly indicate which pronunciation errors were present. The data shows that 7.46% recognized [ǔ] in at least one of the three words.



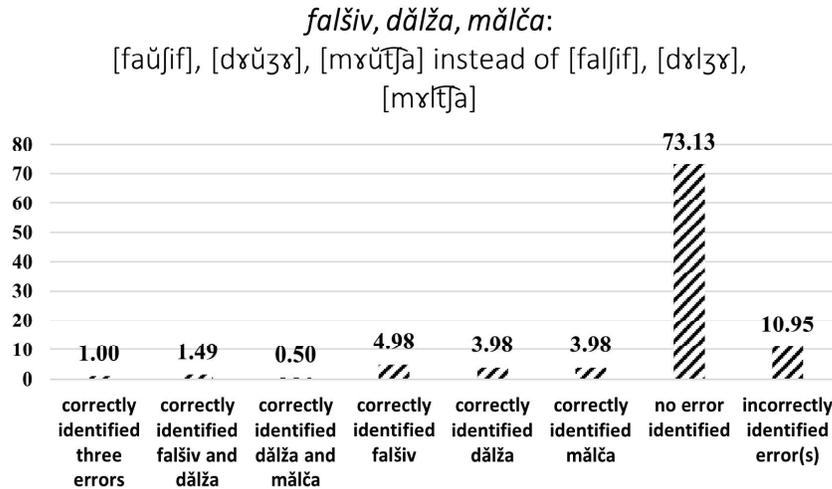
**Figure 16.** Recognition of [ũ] in place of [ʌ] in *kālcam, pālzya, sālza* (in %; N = 200).

The fourth 3-word sequence is *vālna* ‘wool’, *bolno* ‘ill’, *kālna* ‘(to) curse’. In all the words [ʌ] precedes the sonorant [n]. The distribution of the answers can be seen in Figure 17. Only 1.49% detected the pronunciation of [ũ] in all the three words, 1.99% recognized it in *vālna* and *kālna*, 1.99% in *bolno* and *kālna*, 6.47% only in *bolno*, 5.47% in *kālna*. No error was identified correctly by 5.97%, and 76.62% of the respondents claimed that there was no error. A total of 17.41% heard [ũ] in at least one of the three words which is the highest rate so far, compared to short texts and simple sentences.



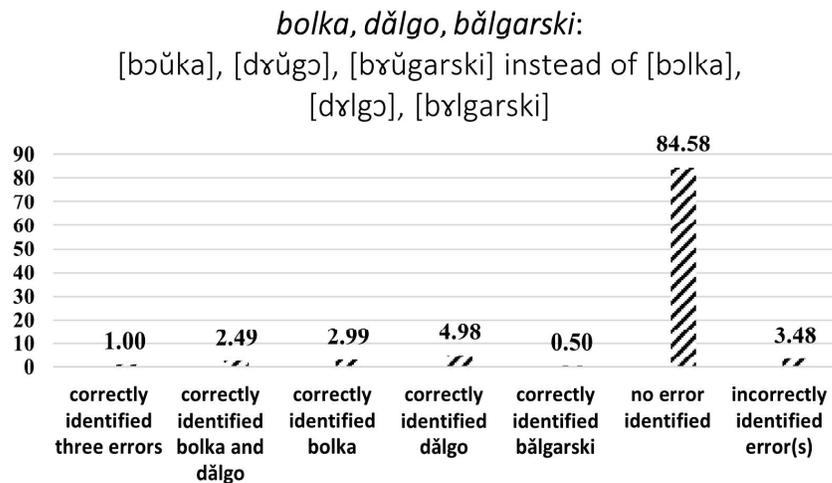
**Figure 17.** Recognition of [ũ] in place of [ʌ] in *vālna, bolno, kālna* (in %; N = 200).

The fifth string of 3 words is *falšiv* ‘fake’, *dālža* ‘(to) owe’, *mālča* ‘(to) be silent’. Here [ũ] is followed by a postalveolar consonant. It is clear from Figure 18 that only 1% indicated pronunciation [ũ] instead of [ʌ] in all of the three words, 1.49% heard it in *falšiv* and *dālža*, 0.5% recognized it in *dālža* and *mālča*, 4.98% only in *falšiv*, 3.98% only in *dālža*, 3.98% only in *mālča*. No error was indicated by 73.13% of the respondents and 10.98% of them did not indicate the errors correctly. A total of 15.93% recognized the mispronunciation of [ũ] in at least one of the three words.



**Figure 18.** Recognition of [ʃ] in place of [l] in *falšiv, dālža, mālča* (in %; N = 200).

The sixth sequence of 3 words is *bolka* ‘pain’, *dālgo* ‘long’, *bālgarski* ‘Bulgarian’. In these words, [ʃ] is followed by a velar consonant, voiceless or voiced. As shown in Figure 19, only 1% heard the pronunciation of [ʃ], 2.49% found it in *bolka* and *dālgo*, 2.99% only in *bolka*, 4.98% in *dālgo*, 0.5% in *bālgarski*. No error was indicated by 84.58% of the participants, no error was correctly indicated by 3.48%. A total of 11.96% found the occurrence of [ʃ] in place of [l] in at least one of the three words.



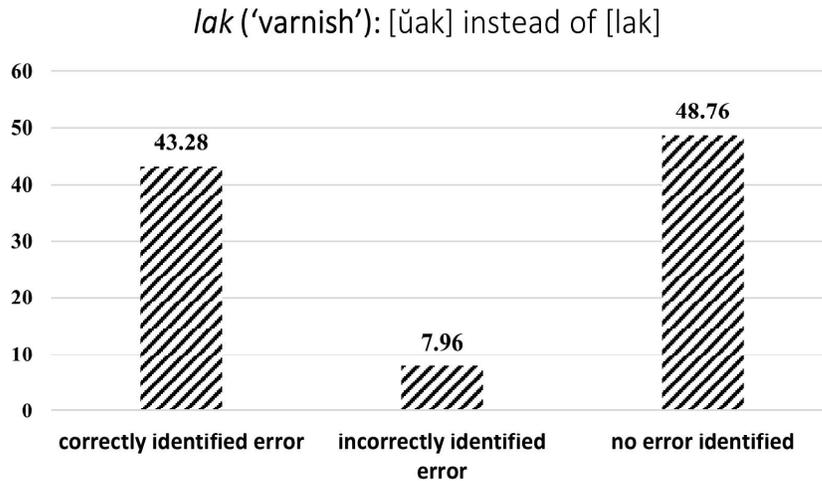
**Figure 19.** Recognition of [ʃ] in place of [l] in *bolka, dālgo, bālgarski* (in %; N = 200).

In conclusion, the analysis of the results shows that the percentage of respondents who recognize the pronunciation of [ʃ] in place of [l] in all three words is relatively small although in all of the sequences all of the words are mispronounced. Between 7.46% and 17.41% recognize the variant [ʃ] in at least one of the three words. These percentages indicate a slightly higher recognition rate in the case of a 3-word sequence perception compared to the one in a simple sentence or in short text of 3–4 sentences.

### 3.4 Recognition of [ʃ] in Place of [l] in a Single Word

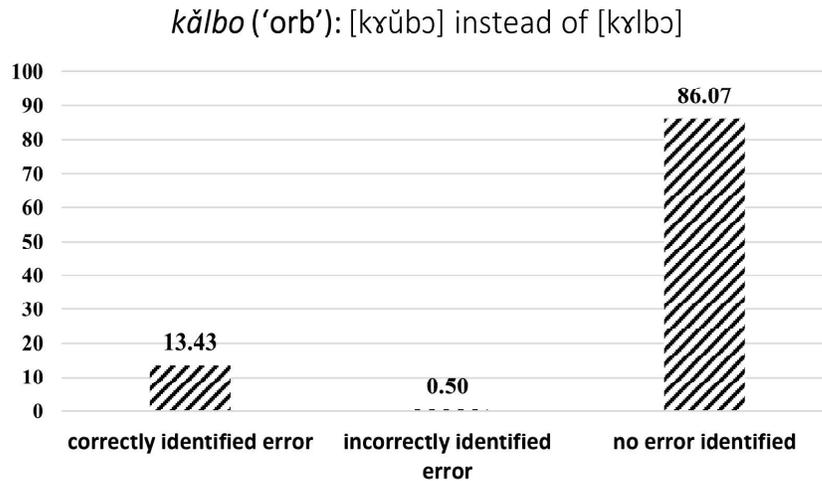
This section of the questionnaire includes six single-word recordings, pertaining to the last perceptual style characterized by the highest level of attention.

The first word is *lak* ‘varnish’, in which [l] is followed by [a]. Figure 20 shows that 43.28% of the respondents correctly detected the occurrence of [ʌ] in place of [l], which is the highest percentage so far. Of all respondents, 7.96% incorrectly indicated another type of error, 48.76% wrote that there was no error.



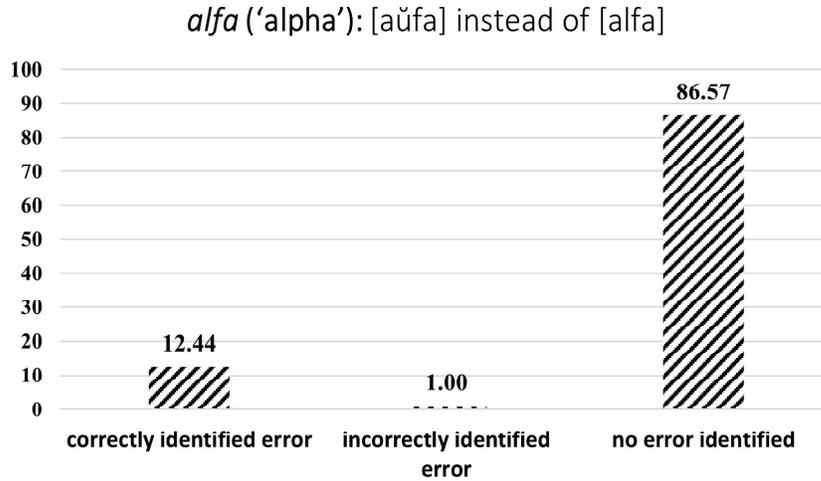
**Figure 20.** Recognition of [ʌ] in place of [l] in *lak* (in %; N = 200).

The next individual word tested in the perceptual task is *kälbo* ‘orb’, where the substituted [ʌ] precedes the hard bilabial [b]. As shown in Figure 21, only 13.43% of respondents recognized the [l] substitution, a considerably lower percentage compared to the 43.28% recognition rate for *lak*. An additional 0.50% reported a different, non-existent error, while 86.07% indicated that they perceived no error.



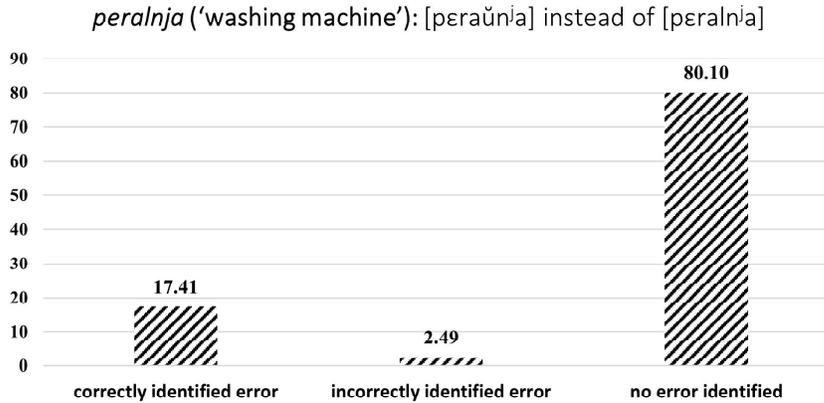
**Figure 21.** Recognition of [ʌ] in place of [l] in *kälbo* (in %; N = 200).

The third word is *alfa* ‘alpha’ and [ʌ] precedes a labiodental hard consonant. The [l] substitution is detected by 12.44% of all 200 respondents (see Figure 22). Those who incorrectly indicated another error were 1.00%. A total of 86.57% claimed that there was no error.



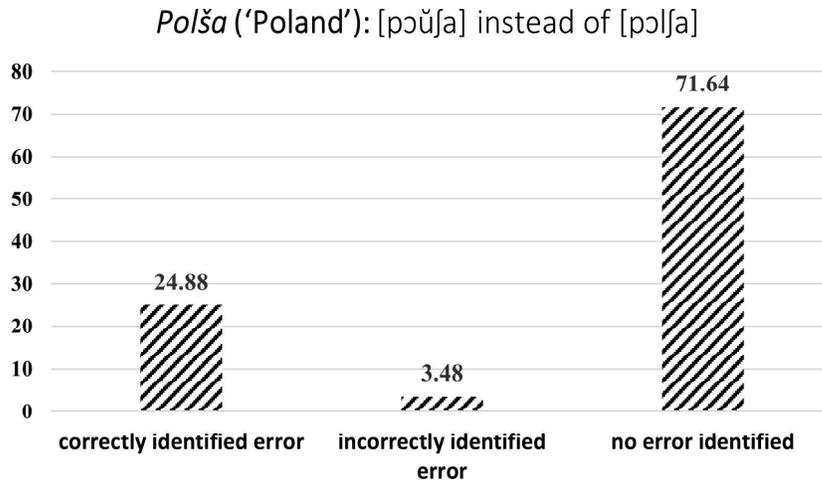
**Figure 22.** Recognition of [ǔ] in place of [l] in *alfa* (in %; N = 200).

The occurrence of [ǔ] in *peralnja* ‘washing machine’ was detected by 17.41% of respondents. Another error was indicated by 2.49%, and 80.10% wrote that there was no error. The data is illustrated in Figure 23.



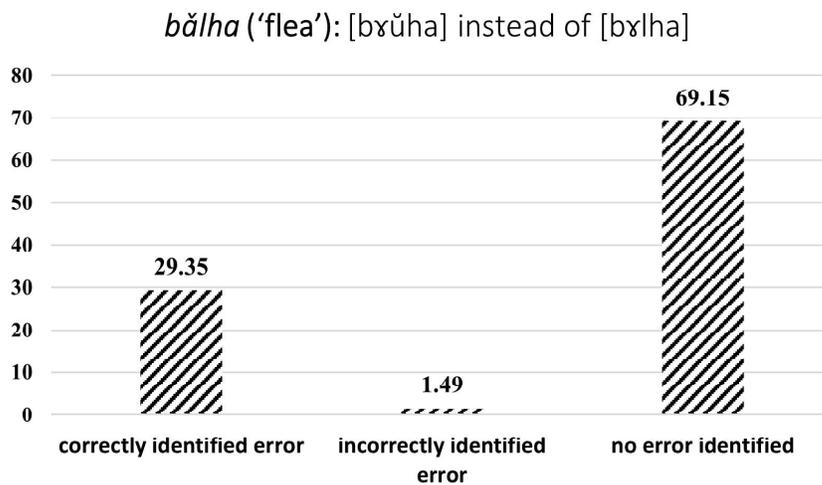
**Figure 23.** Recognition of [ǔ] in place of [l] in *peralnja* (in %; N = 200).

The next single word is *Polša* ‘Poland’, where the pronunciation of [ǔ] instead of [l] was recognized by 24.88%, a significant number compared to the other examples examined so far, except *lak* (Figure 20). Another type of error was indicated by 3.48%, and those who decided that there was no error were 71.64%.



**Figure 24.** Recognition of [ŭ] in place of [l] in *Polša* (in %; N = 200).

The last single word is *bālha* ‘flea’. The variant [ŭ] is adjacent to the hard velar consonant [x]. Figure 25 shows that 29.35% of the 200 participants in the survey indicated the replacement of [l] with [ŭ], 1.49% heard another type of error, and 69.15% decided that there was no error.



**Figure 25.** Recognition of [ŭ] in place of [l] in *bālha* (in %; N = 200).

Summarizing the analyses of [ŭ] recognition in single words, there were slightly more respondents who detected the [l] substitution in this perceptual style, which is associated with the most significant concentration of attention in the context of spoken utterances compared to the other three perceptual styles.

### 3.5 Comparison of the Recognition of [ŭ] in Place of [l] across the Four Perceptual Styles

In this section, we compare the data for successful recognition of [ŭ] in place of [l] across the four perceptual styles. Figure 26 shows the data from the four perceptual styles for each of the tasks. With respect to the recognition of the [l] substitution in a sequence of three words, the percentage of those who recognized at least one of the three words as containing [ŭ] is taken to be representative.

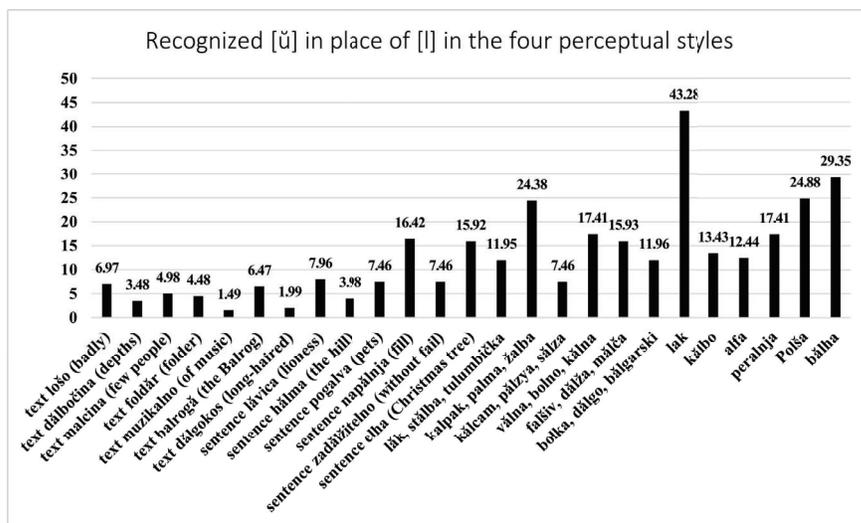


Figure 26. Recognized [ũ] in place of [l] in the four perceptual styles (in %; N = 200).

Figure 26 shows that there is some variation in the recognition of [ũ] in place of [l] among the four perceptual styles. The percentages are lowest for the perceptual style of short text consisting of 3-4 sentences, slightly more participants recognized the phenomenon in simple sentences, there is an increase in recognition with respect to the lists of 3 words, and the highest percentages of those who recognized the variant [ũ] were found in the perceptual style of single words. Averaging the percentages for each perceptual style confirms the validity of this observation: the average percentage of [ũ] recognition in short texts of 3-4 sentences is 3.68%, for simple sentences the average percentage is 8.52%, the average recognition in a list of three words with at least one of them recognized as containing [ũ] is 14.10%, and the average percentage of those who recognized the phenomenon in individual words is 20.07% (Table 2). This suggests that our hypothesis regarding the dependence of recognition on the perceptual style can be considered valid.

Table 2. Average [ũ] recognition by perceptual style.

Perceptual Style	Average [%]
Short texts (3–4 sentences)	3.68
Simple one-word sentences	8.52
Three-word list (at least one recognized)	14.10
Individual words	20.07

However, one of the other hypotheses is rejected, namely, the assumption that the recognition of [ũ] in place of [l] depends on the sound that follows [l]. The comparison of the data from Figure 31 provides no consistent support for this claim. It seemed to us that the position at the absolute beginning of the word was important – the highest percentage of respondents recognized *lak* – 43.28%, but a low percentage recognized *lošo* – 6.97%. Thus, this hypothesis is rejected too.

### 3.6 Analysis of the Relationships between Socio-Demographic Characteristics and Recognition of [ũ] in Place of [l]

Chi-square calculations were done (Goev, Boshnakov, Tosheva, Haralampiev & Bozev, 2019, pp. 116–127; Aleksova & Tisheva, 2019) to investigate the relationships between socio-demographic characteristics of respondents and the recognition of [ũ] in place of [l]. If the coefficient p at the analysis of relationships is smaller than  $\alpha < 0.05$ , it is assumed that a relationship exists between the respective socio-demographic characteristic and the recognition of [ũ].

### 3.7 Correlation between Gender and Recognition of [ũ] in Place of [l]

In this subsection, we present and analyze the data from the statistical analysis of the relationships between the variable of gender of the respondents (with two levels: female, male), understood as an independent variable, and

the recognition of [ũ] in place of [l] as a dependent variable. Here we comment only on cases where the presence of a relationship has been proven.

The analysis shows a relationship between the gender variable and the recognition of [l] substitution in the short text “Few people (*malcina*) know that the school renovation starts today. Harmless paints will be delivered. The renovation will be completed before September 15”. The coefficient  $p = 0.004$ , indicating the presence of a relationship. Specifically, more male respondents accurately identified the mistake, 12.5% compared to 2.1% female respondents, while among female respondents, more of them responded that there is no mistake, 77.2%, unlike male respondents, 60.7% of them.

In another case where a correlation was found, it was between the gender of the respondents and the recognition of [ũ] in place of [l] in the simple sentence She often pets (*pogalva*) the child,  $p = 0.043$ . The relationship is moderate. Its specific expression is found in the fact that again, among men, there are more who correctly identified the error, 12.5% compared to 5.5% among women, and among women, there are fewer who claimed that all the words in the sentence are pronounced correctly, 68.3.2%, unlike men, 75%.

According to  $p = 0.030$ , a relationship exists between the gender feature and the recognition of [ũ] in place of [l] in the simple sentence “I will fill (*napálnja*) a glass with water”. The relationship is specifically expressed in the fact that almost the same percentage of women and men accurately identify the presence of [ũ] in place of [l], 16.6% of women and 16.1% of men. More women, however, have found some other type of error (which does not actually exist), 27.6% compared to men, 10.7%. Accordingly, more men state that there is no error, 73.2%, compared to women, 55.9%.

As can be seen, there are only three cases where there is a relationship between gender and the recognition of [l] substitution. Moreover, no stable trend can be inferred as to whether women or men recognize this phenomenon more often. It is clear that the gender factor is not a strong determinant of the recognition of [ũ] in place of [l].

### 3.8 Correlations between Age and Recognition of [ũ] in Place of [l]

As explained in the Method section, the age feature has the following 7 levels: up to 19 years, from 20 to 30 years, from 31 to 40 years, from 41 to 50 years, from 51 to 60 years, from 61 to 70 years, and 71 years and over. Analyses of the relationships show that only between age and recognition of [ũ] in place of [l] in the simple sentence “I will fill (*napálnja*) a glass with water” there is a moderately strong connection, as  $p = 0.005$ . It is specifically expressed in the fact that with increasing age, the percentage of those who correctly identified the phenomenon also increases, for example, up to 19 years only 5.9% have correctly recognized it, between 31 and 40 years, 10.3%, between 61 and 70 years, 40%. The age factor is therefore an even weaker determinant of the recognition of [ũ] in place of [l] compared to the gender factor.

### 3.9 Correlations between Education and the Recognition of [ũ] in Place of [l]

The feature educational level has three levels: primary, secondary or vocational education, and higher education. Here, we only comment on cases where there is a correlation between this feature and the recognition of [ũ] in place of [l].

According to  $p = 0.003$ , there is a correlation between the educational level and the recognition of [ũ] in place of [l] in the short text “The Balrog (*balrogâ*) appears in the most iconic fantasy work by Tolkien. They were thought to be fire spirits, most of whom were slain at the end of the First Age of Middle-earth”. Specifically, this moderate relationship is expressed in the facts that as the educational level increases, the percentage of those who correctly recognize [ũ] also increases, 0% for primary education, 4.3% for secondary or vocational education, and 7.8% for higher education, as well as that with the increase of the obtained educational level, the percentage of those who claim that there is no mistake decreases, 92.9% for primary education, 50% for secondary or vocational education, and 39% for higher education.

There is a moderate relationship between the educational level and the recognition of [ũ] in the simple sentence “There is a lioness (*lâvica*) in the zoo”. This is evidenced by  $p = 0.024$ . This is expressed in the fact that as the educational level increases, the percentage of respondents who answered that there is no error decreases, 71.4% of those with basic education, 47.8% among those with secondary and vocational education, and 37.6% among those with higher education.

There is a moderate relationship between the educational level and the recognition of [ũ] in place of [l] in the simple sentence “I will fill (*napálnja*) a glass with water”. This is demonstrated by  $p = 0.000$ . This relationship is expressed in the fact that the three education groups are arranged in the following order according to the percentage of respondents who answered that there is no error, the lowest percentage is among respondents with

higher education, 51.8%, followed by those with primary education (undergraduate students), 57.1%, and the highest percentage is among respondents with secondary and vocational education, 89.1%.

Only three cases of a relationship between educational level and the [l] substitution were found, which means that this feature is also a weak determinant of recognition in the perception of the phenomenon of interest.

### 3.10 Correlations between the Feature ‘Academic Major’ and the Recognition of [ǔ] in Place of [l]

*Academic major* is a feature with two levels, philological and non-philological. We included this feature because according to our preliminary hypothesis, it should be the most significant determinant of successful recognition of [ǔ] instead of [l]. We made this decision based on the assumption that it is the members of the intelligentsia with philological background that are the natural bearers of the national standard language norms.

According to  $p = 0.019$ , there is a moderate relationship between the major attribute and the recognition of [ǔ] in place of [l] in the short text “Today you will hear a new piece of music (*muzikalno*). It can hardly be considered as belonging to a single genre”. Its specific expression is the fact that among philologists there are more who correctly (2.8%) or incorrectly (44%) identified some errors than among non-philologists (0% and 29.3%, respectively).

There is a moderately strong relationship between the major and the recognition of [ǔ] in place of [l] in the word *alfa*. This correlation has a specific expression in the fact that there are more philologists who recognized the phenomenon under study, 17.4%, while among non-philologists the percentage is 6.5%. Accordingly, those who indicated that there is no error among philologists are fewer: 80.7% compared to 93.5% among non-philologists.

As it becomes clear, only two analyses have shown the existence of relationships. This refutes our hypothesis that the major in philology will be the most significant determinant of the recognition of [ǔ] in place of [l].

### 3.11 Correlations between the Feature ‘Place of Residence’ and the Recognition of [ǔ] in Place of [l]

The attribute ‘place of residence’ has the following levels: the capital Sofia, regional city, non-regional city, village, and outside Bulgaria (abroad). We included it because in the study on the perception of 12 non-standard variants of speech phenomena, it turned out to be one of the significant determinants of the respondents’ evaluations and attitudes (Aleksova, 2016).

According to  $p = 0.043$ , there is a moderate relationship between the ‘place of residence’ feature and the perception of [ǔ] in place of [l] in the short text “Yesterday morning, he was searching for a file on his computer. He needed it for an important article. Finally, he found it incorrectly saved in another folder (*foldär*)”. It is expressed in the following ordering of the groups by residence: the highest percentage of respondents who indicated that there was no error were those living outside Bulgaria, 61.5%, followed by those living in regional cities, 60.7%. Close behind them are those living in rural areas, 60%, next are those living in non-regional cities, 50%. The smallest group of respondents who live in the capital indicated that there was no error, 37%.

There is a moderately strong correlation between the ‘place of residence’ feature and the sequence *lák, stálba, tulumbička*, with  $p = 0.011$ . Specifically, this correlation is expressed in the following ordering of the groups by residence, with respect to those who did not find an error: the highest percentage is among those living in regional cities, 85.7%, followed by those living outside Bulgaria, 80.8%, very close to them are those living in villages, 80%, followed by those living in Sofia, 77.8%, and the lowest percentage is among those living in non-regional cities, 66.7%.

There is also a moderately strong correlation between the ‘place of residence’ feature and the 3-word list *kálcam, pálzya, and sálza* with  $p = 0.016$ . Specifically, it is expressed in the following ordering of groups by residence, according to those who did not recognize the mispronunciation: the highest percentage is among those living outside Bulgaria, 92.3%, followed by those living in regional cities, 91.1%, then those living in Sofia, 87%, followed by those living in non-regional cities, 66%, and the lowest percentage is among those living in villages, 60%.

A moderately strong correlation was also found between the ‘place of residence’ attribute and the sequence *válna, bolno, kálna*, with  $p = 0.009$ . Specifically, it finds expression in the following arrangement of groups by residence according to those who did not find an error: the highest percentage is among those living in regional cities, 80.4%, followed by those living in Sofia, 78.7%, outside Bulgaria, 79.6%, in villages, 60%, and the smallest percentage is among those living in non-regional cities, 16.7%.

There is a moderately strong relationship between the ‘place of residence’ feature and the sequence *bolka, dälgo, bălgarski*, with  $p = 0.03$ . More specifically, it is expressed in the following arrangement of groups by residence according with respect to those who did not recognize the [l] substitution as an error: almost equal percentages of those living in non-regional cities, 87.5%, outside Bulgaria, 84.6%, in Sofia, 84.3%, and in regional cities, 83.3%. The lowest percentage of people who did not recognize the mispronunciation is among village residents, 60%.

According to  $p = 0.01$ , there is a moderately strong relationship between the variable ‘place of residence’ and the recognition of [ü] in place of [l] in the word *alfa*. The correlation is expressed in the following way: the highest percentage of people who recognized the phenomenon we are interested in was in the non-regional cities, 33.3%, followed by those living in Sofia, 15.7%, and then by those living outside Bulgaria, 15.4%. Fewer people recognized the phenomenon in the regional cities, 3.6%. No village residents recognized the pronunciation of [ü] in place of [l] in the word *alfa*.

There is a moderately strong relationship between the feature ‘place of residence’ and the recognition of the substitution of [l] in the word *peralnja* with a correlation coefficient of  $p = 0.049$ . Specifically, the relationship is expressed in the following order of groups by ‘place of residence’, based on the ‘no-error’ response: the highest percentage was among residents of regional cities, 89.3%, followed by residents of non-regional cities, 83.3%, then those living outside Bulgaria, 80.8%. Next were those living in Sofia, 75.9%, and finally those living in villages, 60%.

In 7 cases, there is a relationship between the ‘place or residence’ feature and the recognition of the [ü] pronunciation. This is the largest number of correlations so far. However, no clear trend can be identified among the groups regarding which one has the highest percentage of people who perceive the substitution of [l] with [ü].

## 4. Conclusion

As it became clear from the analyses of the relationships in the previous sections, all selected socio-demographic characteristics of the respondents turned out to be weak determinants of the recognition of [ü] in place of [l]. Our hypothesis regarding their determining power was rejected, and the hypothesis that the recognition of the appearance of [ü] in place of [l] would depend heavily on the factor of specialization was not supported.

The hypothesis that the recognition of [ü] in place of [l] would be dependent on the sound following [l] was also refuted by the results. No difference in recognition was observed when there was a vowel or a consonant of a different kind following [l].

It turned out that only one of our hypotheses was proven valid: only perceptual style affects the degree of recognizability of the substitution of [l] with [ü]. The success of recognizing [ü] in place of [l] decreases with the decrease in attention to the spoken text, from the perception of a single word, through the perception of a list of 3 words, to the perception of a simple sentence and finally of a coherent text of 3–4 sentences.

The present survey is not representative, so the conclusions apply only to the group of 200 respondents we interviewed. However, it is a good starting point for conducting other studies, and it also serves as a stimulus for the realization of a representative national survey, which we consider necessary due to the emerging trend of more and more members of each successive generation pronouncing [ü] in place of [l].

As far as we know, this is the first perceptual study in Bulgaria to examine the recognition of [ü] in place of [l], using four distinct perceptual styles and analyzing the relationship between socio-demographic characteristics and the recognition of [ü] in place of [l]. The results suggest that perceptual style influences the recognition of [ü] in place of [l], with the highest recognition rates observed in isolated words and the lowest in extended texts. By contrast, socio-demographic factors such as age, education, gender, and academic background appear to have only a limited impact on perception. This, in turn, suggests that the substitution of [l] with [ü] may be broadly internalized across different social groups. It may no longer be marked as a socially or regionally restricted feature but rather as a development that is gradually becoming a general characteristic of contemporary spoken Bulgarian.

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## The L-problem in Nursery Songs in Bulgarian. The Perception of /l/, /l'/, and [ǰ] by students of Bulgarian as a Foreign Language

### Л-проблемът в детски песни на български език. Перцепцията на /л/, /л'/, [ǰ] от студенти по български език като чужд

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**Abstract.** This study examines the phonetic perception of the Bulgarian phonemes /l/ and /l'/ by learners of Bulgarian as a foreign language. Two experimental groups from Ukraine and Germany at levels A1–A2 listened to recordings of Bulgarian versions of nursery songs, followed by an auditory test and an interview designed to assess their perception of /l/ and /l'/ in various phonological positions. Due to the lexical and phonetic proximity between Bulgarian and their native language, the Ukrainian participants experienced minimal difficulty perceiving the target phonemes. In contrast, the German-speaking group encountered challenges in distinguishing /l/ from /l'/. Some learners reported perceiving /l/ as [ǰ] in non-classroom environments. The experiment revealed shared difficulties in the perception of these consonants, suggesting directions for further research in phonological perception. The findings may contribute to the development of more effective teaching methodologies and theoretical approaches in Bulgarian language instruction for non-native speakers.

**Абстракт.** Проучването изследва звуковата перцепция на фонемите /л/ и /л'/ в българския език от курсисти, които го изучават като чужд. Две експериментални групи от Украйна и от Германия, на ниво А1–А2, прослушват записи на български версии на детски песни, последвани от аудитивен тест и интервю за оценка на възприятието на фонемите /л/ и /л'/ в различни позиции. Поради лексикалната и фонетичната близост на езиците по отношение на думи, съдържащи /л/ и /л'/, украинската група интервюирани изпитва минимални затруднения. В групата студенти от Германия възниква въпросът за диференцирането на /л/ и /л'/. Част от курсистите споделят, че са доловили изговора на /л/ като [ǰ] в извънучебна среда. С проведения експеримент се установяват някои общи проблеми в перцепцията на консонантите /л/ и /л'/, които могат да бъдат обект на следващи изследвания в областта на звуковата перцепция. Това би могло да спомогне за работата на методици и теоретици на съвременния български език от гледна точка на чуждоезиковото обучение.

**Keywords:** phonetic perception, Bulgarian as a foreign language, L-problem

**Ключови думи:** звукова перцепция, български език като чужд, Л-проблемът

## 1. Introduction

### 1.1 The L-Problem in the Bulgarian Language

The articulation and perception issues related to the phoneme /l/ in Bulgarian have been the subject of extensive research and discussion among scholars both in Bulgaria and abroad. While the pronunciation norm establishes the lateral and alveodental nature of the consonant /l/ in the standard language (Grammar of Contemporary Standard Bulgarian [GCSB], 1983), spoken language reveals a different reality – namely, bilabial articulation and

vocalization. This issue has been addressed from the perspectives of dialectology and phonology (Stoykov, 1956, 1962; Kochev, 2007; Marinov, 2019a, among others), as well as sociolinguistics (Todorova & Atanasova, 2010; Mitsova & Padareva-Ilieva, 2017; Padareva-Ilieva & Mitsova, 2012, 2014, 2016, 2020; Mitsova, Padareva-Ilieva & Smakman, 2022; Soroka, 2013; Alboul & Soroka, 2012; Bozhanina, 2014, 2016; Marinov, 2019b, etc.). In the practice of teaching Bulgarian as a foreign language, the L-problem is of particular importance in relation to auditory perception (Aleksova, 2016).

## 1.2 Objective, Research Tasks, and Expected Outcomes

The aim of this study is to investigate the perceptual difficulties associated with the Bulgarian phonemes /l/ and /l'/ among learners of Bulgarian as a foreign language. The research involved two distinct learner groups. The first group (Group 1) consisted of participants from Ukraine enrolled in an A1-level language and cultural integration program for refugees. This group included 10 participants aged between 16 and 40. Six of them identified Russian as their first language but regarded themselves as bilingual, with Ukrainian as their second language. Three participants considered Ukrainian their first language. One individual in this group was a native speaker of a Bulgarian dialect spoken by a Bulgarian minority in Ukraine, who also spoke Russian and Ukrainian fluently. The second group (Group 2) comprised 10 university students from Germany, also studying Bulgarian as a foreign language at the A1 level within the context of their academic program in Bulgaria. Eight of these participants were native speakers of German, while the remaining two were simultaneous bilinguals in Turkish and German. Both groups had been residing in the Republic of Bulgaria for a period of six to eight months prior to the experiment. This relatively short period of immersion suggests that the respondents were not yet fully aware of the articulatory distinctions between the relevant consonants, and thus were unlikely to be influenced or biased in their perception of the two variants. In order to achieve the research objective outlined above, we conducted an auditory perception experiment using Bulgarian children's songs as stimulus material.

We selected four famous children's songs in Bulgarian: Колелата на автобуса (*Kolelata na avtobusa* – “The Wheels on the Bus”), Пет малки патета (*Pet malki pateta* – “Five Little Ducks”), Пет маймунки (*Pet maimunki* – “Five Little Monkeys”), and Кравата Лола (*Kravata Lola* – “Lola the Cow”). The performances were taken from the YouTube and Spotify channel @HeyKids\_bg. HeyKids is a channel run by the company Vveee, which, in partnership with Animaj, creates and distributes animations and audio recordings of popular children's stories and songs in various languages. The Nursery Rhymes project offers digital content available in 21 languages worldwide, including Bulgarian. Due to the universality of the lyrics and the songs themselves – familiar to the participants in their native languages—these were chosen as the listening material for the experiment.

During the experiment, participants listened to the songs and subsequently completed an auditory test and an interview. The auditory test involved filling in selected missing words from the song lyrics after two listenings. These missing words were specifically chosen to assess the perception of /l/ and /l'/. In the interview, participants were asked to comment on what they found difficult and what they heard in the lyrics of the children's songs. Our goal was to determine whether the respondents would have difficulty identifying /l/ on the one hand, and whether they could differentiate between /l/ and /l'/ on the other. The questions focused exclusively on the perception of /l/ and /l'/. A third listening and presentation of the lyrics were conducted during the interview.

The song lyrics contained between 60% and 80% of the vocabulary studied up to that point, and up to 70% of the grammatical structures previously covered. The songs were also available in translations into the respondents' first languages (German, Russian, Turkish, and Ukrainian), which made the content familiar. The hypothesis we formulated is as follows: we expected Group 1 to encounter significantly fewer difficulties in the perception of /l/ and /l'/ compared to Group 2, due to their Slavic language background. For Group 2, we anticipated challenges in distinguishing between /l/ and /l'/. We also expected that both groups might experience difficulty perceiving /l/ when it is realized as [w] in certain positions.

## 2. Procedure of the Study

### 2.1 Auditory Test

Participants were provided with the lyrics of the selected songs, in which certain words were omitted. They were instructed to fill in the missing words by hand based on what they heard.

2.1.1. *Колелата на автобуса (Kolelata na avtobusa, "The Wheels on the Bus")*

The missing words were: колела (*kolela*, "wheels"), целия (*tseliya*, "the whole"), надолу (*nadolu*, "down"), наляво (*nalyavo*, "to the left"), клаксона (*klaksona*, "the horn"). In Group 1, all participants correctly filled in the missing words. In Group 2, three participants wrote "надоу" (*nadou*) and four wrote "надоло" (*nadolo*) instead of надолу (*nadolu*). The word "наляво" (*nalyavo*) was misspelled as "налаво" (*nalavo*) by three participants. The remaining words were spelled correctly.

	колелата	целия	надолу	наляво	клаксона
група 1	10/10	10/10	10/10	10/10	10/10
група 2	10/10	10/10	3/10	7/10	10/10

2.1.2. *Пет малки патета (Pet malki pateta, "Five Little Ducklings")*

The missing words were: малки (*malki*, "little"), плуваха (*pluvaha*, "were swimming"), надалеч (*nadalech*, "far away"), плуваше (*pluvashe*, "was swimming"). Participants in Group 1 did not encounter difficulties in writing the words. Hesitations appeared in Group 2, where one student wrote the forms "луваха" (*luvaha*) and "луваше" (*lvashe*), and another wrote "пуваха" (*puvaha*) and "пуваше" (*puvashe*).

	малки	плуваха	надалеч	плуваше
група 1	10/10	10/10	10/10	10/10
група 2	10/10	8/10	10/10	8/10

2.1.3. *Пет маймунки (Pet maymunki, "Five Little Monkeys")*

The missing words were: легло (*leglo*, "bed"), чело (*chelo*, "forehead"), леглото (*legloto*, "the bed"), малчугани (*malchugani*, "kids"), лягат (*lyagat*, "they lie down"). In Group 1, there were two incorrect recordings of малчугани, written as мачугани (*machugani*) twice and маочогани (*maochogani*) once. In Group 2, the word малчугани was recorded four times as мачугани (*machugani*). The most difficult word for Group 2 was лягат, which nine students wrote as лагат (*lagat*).

	легло	чело	леглото	малчугани	лягат
група 1	10/10	10/10	10/10	7/10	10/10
група 2	10/10	10/10	10/10	6/10	1/10

2.1.4. *Кравата Лола (Kravata Lola, "Lola the Cow")*

The missing words were: Лола (*Lola*), еспаньола (*espanjola*, "Spanish [female]"), клати (*klati*, "shakes"), ола (*ola*, "wave"). In Group 1, the incorrect spellings of Лола included Лёля (*Ljolja*) and Льоля (*Ljolja*). Two participants wrote the word еспаньола (*espanjolya*). There were also mistakes in the words клати and ола, which appeared as ляти (*ljati*) and оля (*olja*), respectively. In Group 2, the only errors were with the verb клати, written by seven participants as лати (*lati*). This mistake is not related to the perception of [l].

	Лола	еспаньола	клати	ола
група 1	4/10	8/10	8/10	8/10
група 2	10/10	10/10	3/10	10/10

## 2.2 Interview

During the interview, participants received the written text of the song, after which they listen to each song once again and answer the following questions:

- What exactly did you hear here? (the missing word)
- Why did you decide to write the word this way?
- Have you heard other variants of this word outside of the learning environment?
- To what extent did knowing the song text in your native language help you?

### 2.2.1. Колелата на автобуса (*Kolelata na avtobusa*, "The Wheels on the Bus")

Participants from Group 1 did not encounter difficulties with the first song and its words. Participants from Group 2 shared that they could not hear a difference when the word is pronounced as [nal'avo] and [nalavo]. Those who wrote the word correctly explained that they used the letter я (ya) because they had seen the word written several times, but they could not audibly distinguish /l/ and /l̥/. The three learners (native German speakers) who wrote *надоу* (*nadou*) claim they do not hear the sound /l/ in the position between /o/ and /u/ in the specific word. The learners reported hearing *доу* (*dou*), *надоу* (*nadou*), and *доло* (*dolo*) outside of the classroom environment. The incorrect spelling *надоло* (*nadolo*) is not related to the issue under investigation.

### 2.2.2. Пет малки патета (*Pet malki pateta*, "Five Little Ducklings")

The results of the interview for the second song were similar. Participants from Group 1 stated that due to the closeness of the languages, they did not experience any difficulties. In Group 2, two students whose first language is Turkish mentioned that they were not familiar with the verb *плувам* (*pluvam*, "to swim") in connection with the missing word *плуваха* (*pluvaha*, "they swam"). All participants in the group reported that they do not hear a difference between [pluvam] and [pl̥uvam]. In Bulgarian, the two verbs denote distinct meanings: *плувам* (*pluvam*) means 'to swim,' whereas *плювам* (*pl̥uvam*) represents a colloquial variant of the verb 'to spit.'

### 2.2.3 Пет маймунки (*Pet maymunki*, "Five Little Monkeys")

In Group 1, the problematic word was *malchugani* ("little kids") for three participants who did not perceive the sound /l/, despite drawing analogies with the words *малък* (*malāk*, "small") and *малюк* (*malyuk*) in Ukrainian, as well as *маленький* (*malen'kiy*) in Russian and Ukrainian. In Group 2, participants who wrote *machugani* stated that they could not hear /l/ even after additional listening. Regarding the verb *лягам* ("to lie down"), students once again failed to detect a difference between [l'agam] and [lagam], which led to difficulties in writing the correct verb form used in the song lyrics.

### 2.2.4 Кравата Лола (*Kravata Lola*, *Lola the Cow*)

In Group 1, all participants were categorical that "No one speaks like this in Bulgaria" when they received the correct written text. The respondents confirmed the bilabial pronunciation of [l] by native speakers they had communicated with. Those who misspelled the name Лола (*Lola*) shared that in the Russian and Ukrainian translations of the text, the cow is called *Льола/Лёла* (*Liola/Lyola*), but in the Bulgarian text, they hear the second l as [l̥]. The comment was identical for *еспаньола* (*espanyola*, "Spanish (female)") and *ола* (*ola*, "from Spanish hola-hello") – even though these words are foreign to Bulgarian. According to the learners, the pronunciation imitates Spanish. In everyday life, outside the learning environment, six participants of Ukrainian origin stated that these words sound like [еспан'ола] (*espan'oua*) and [ола] (*oua*). They attributed this to the analogy with the articulation of the word *ало* (*alo*, "hello" – as a typical phone greeting), which they hear in daily life as "ayo" (*auo*).

## 3. Conclusions

The initial hypothesis was confirmed. The first group of interviewees experienced minimal difficulty due to the lexical and phonetic proximity of Bulgarian, Russian, and Ukrainian with regard to words containing the phonemes /l/ and /l̥/. Of particular interest are the comments from Group 1 participants noting that the pronunciation in the songs does not correspond to their observations of the language in non-academic settings. In Group 2, the anticipated issue arose concerning the differentiation between /l/ and /l̥/, which appears to be challenging for native German speakers, likely due to the absence of such a contrast in their first language. Six participants from Group 1 reported perceiving the pronunciation of /l/ as [l̥] in informal spoken contexts, but not in the songs. In Group 2, only three learners made similar observations. A key factor, of course, is the sound following [l] and [l̥]. The position of these consonants within words must also be taken into consideration in future experiments.

The conducted experiment identified and illustrated several common issues in the perception of the consonants [l] and [l̥], which could serve as the basis for further studies in the field of sound perception. This, in turn, could support the work of methodologists and theorists of contemporary Bulgarian in the context of second-language instruction.

# 1. Въведение

## 1.1. Л-проблемът в българския език

Проблемите с артикулацията и перцепцията на фонемата /л/ в българския език са предмет на редица изследвания и дискусии сред учените в страната и чужбина. Докато правоговорната норма установява латералния и алвеоденталния характер на консонанта /л/ в книжовния език (ГСБКЕ, 1983), в живата реч е налице нещо различно – билабиален изговор и вокализация. Този въпрос се разглежда както по отношение на диалектологията и фонологията (Stoykov, 1956, 1962; Kochev, 2007; Marinov, 2019a, among others), така и на социолингвистиката (Todorova & Atanasova, 2010; Mitsova & Padareva-Ilieva, 2017; Padareva-Ilieva & Mitsova, 2012, 2014, 2016, 2020; Mitsova, Padareva-Ilieva & Smakman, 2022; Soroka, 2013; Albul & Soroka, 2012; Bozhanina, 2014, 2016; Marinov, 2019b; Soroka, 2013; Alboul & Soroka, 2012; Bozhanina, 2014, 2016; Marinov, 2019b, etc.) В практиката на чуждоезиковото обучение по български език Л-проблемът е важен по отношение на звуковата перцепция (Aleksova, 2016).

## 1.2 Цел, задачи и очаквани резултати

Целта, която си поставяме в това изследване, е да проследим трудностите в перцепцията на фонемите /л/ и /л'/ от лица, които изучават български език като чужд. Работихме с два типа обучаеми. Първата група (група 1) се състои от курсисти от Украйна, които изучават български език като чужд в рамките на програма за езикова и културна интеграция на бежанци в ниво А1. Възрастовата група е между 16 и 40 години, броят на интервюираните е 10 души. За шестима души руският език е първи, но те приемат себе си за билингви с втори език украински. За трима украинският е първи. Един от интервюираните е носител на диалектен български език от българска малцинствена група в Украйна, говорен паралелно с руски и украински език. Втората група (група 2) включва студенти от Германия. Те изучават български език като чужд, ниво А1 в рамките на своето обучение в България, отново 10 души. За осем от интервюираните немският език е първи, останалите двама са носители едновременно на турски и немски език. Двете групи студенти пребивават на територията на Република България в продължение на шест до осем месеца преди провеждането на експеримента. Периодът на пребиваване е много кратък, за да бъдат респондентите детайлно запознати с разликите при изговора на въпросните консонанти, така че приемаме, че те не са сугестирани по отношение на двата изговора. За да постигнем поставената по-горе цел, проведохме аудитивен експеримент с детски песни на български език.

Избрахме четири детски песни: “Колелата на автобуса”, “Пет малки патета”, “Пет маймунки”, “Кравата Лола”. Изпълненията са от youtube и spotify канала @HeyKids\_bg. HeyKids е канал на компанията Vveee, която заедно с Animaj създава и разпространява анимации и звукозаписи към най-популярните детски приказки и песни на различни езици. Проектът Nursery rhymes предоставя дигитално съдържание, достъпно на 21 езика по света. Един от тях е български. Поради универсалността на текстовете и самите песни, които са познати на участниците в експеримента и на техните родни езици, се спряхме точно на тях в избора на инструментариум за аудиторането.

По време на експеримента участниците слушат песните, след което преминават през аудитивен тест и интервю. Аудитивният тест представлява попълване на определени липсващи думи в текстовете на песните след две прослушвания. Липсващите думи са избрани целенасочено за проверка на перцепцията на /л/ и /л'/. В интервюто участниците коментират какво ги е затруднило и какво чуват в текстовете на детските песни. Целта ни е да установим дали респондентите ще се затруднят в идентифицирането на /л/, от една страна, и дали имат затруднения при диференциацията на /л/ и /л'/, от друга. Въпросите са насочени изцяло върху перцепцията на /л/ и /л'/. По време на интервюто се реализира и трето прослушване на песните, както и запознаването с текста им.

Текстовете на песните съдържат между 60 и 80% от изучената до момента лексика и до 70% от изучените граматични конструкции. Песните имат превод на първия език на интервюираните (немски, руски, турски, украински), което ги прави познати като съдържание.

Хипотезата, която поставяме, можем да формулираме по следния начин: предварително очакваме Група 1 да изпита много по-малко затруднения при перцепцията на /л/ и /л'/ в сравнение с Група 2, поради славянския си произход. От група 2 очакваме трудности в диференциацията на /л/ и /л'/. Вероятни са затруднения при двете групи в перцепцията на /л/ и възприемането му като [ǃ] в определени позиции.

## 2. Ход на изследването

### 2.1 Аудитивен тест

предоставя се на участниците текстът на песента с липсващи думи, които те трябва да попълнят собственооръчно.

#### 2.1.1. „Колелата на автобуса”

липсващи думи: колела, целия, надолу, наляво, клаксона. В първа група всички участници са записали коректно думите. В група 2 трима души са написали думата „надоу” и четирима – „надоло”. Три грешни записвания се появяват при думата „наляво” като „налаво”. Останалите думи са коректно написани.

	колелата	целия	надолу	наляво	клаксона
група 1	10/10	10/10	10/10	10/10	10/10
група 2	10/10	10/10	3/10	7/10	10/10

#### 2.1.2. Пет малки патета

липсващи думи: малки, плуваха, надалеч, плуваше.

Участниците от първата група не са срещнали затруднения в записването на думите. Колебания се виждат при втората група, в която един студент е написал формите „луваха” и „луваше”, и един – „пуваха” и „пуваше”.

	малки	плуваха	надалеч	плуваше
група 1	10/10	10/10	10/10	10/10
група 2	10/10	8/10	10/10	8/10

#### 2.1.3. Пет маймунки

Липсващи думи: легло, чело, леглото, малчугани, лягат

В група 1 има грешно записване на малчугани – два пъти, като „мачугани” и веднъж „маочогани”. В група 2 думата „малчугани” е четири пъти записана с вариант „мачугани”. Най-трудна за група 2 се оказва думата „лягат”, която девет студенти са написали като „лагат”.

	легло	чело	леглото	малчугани	лягат
група 1	10/10	10/10	10/10	7/10	10/10
група 2	10/10	10/10	10/10	6/10	1/10

#### 2.1.4. Кравата Лола

Липсващи думи: Лола, еспаньола, клати, ола.

В група 1 погрешното записване на „Лола” е с вида „Лёля” и „Льоля”. Двама участници са написали думата „еспаньола”. Грешки има и в записването на „клати” и „ола”, които се появяват като „ляти” и „оля”. В група 2 грешките са само при глагола „клати”, който е написан от седем души като „лати”. Тази грешка не е свързана с възприемането на [л].

	Лола	еспаньола	клати	ола
група 1	4/10	8/10	8/10	8/10
група 2	10/10	10/10	3/10	10/10

## 2.2 Интервю

В интервюто участниците се запознават с текста на песента в писмен вариант, след което слушат още веднъж всяка песен и отговарят на следните въпроси:

- Какво точно чухте тук? (пропуснатата дума).
- Защо решихте да напишете думата по този начин?
- Чували ли сте други варианти на тази дума извън учебна среда?
- Доколко Ви помогна познаването на текста на песента на Вашия език?

### 2.2.1. “Колелата на автобуса”

Участниците от Група 1 не са срещнали трудности с първата песен и думите в нея. Участниците от Група 2 споделят, че не чуват разлика, когато думата се произнесе като [нал’аво] и [налаво]. Тези, които са написали правилно думата, споделят, че пишат буква „я”, защото са срещали думата няколко пъти написана, но не могат да различат слухово /л/ и /л’/. Тримата курсисти (с първи език немски), които са написали „надоу”, твърдят, че не чуват звук /л/ в позиция между /о/ и /у/ в конкретната дума. Курсистите заявяват, че извън учебна среда са чували „доу” и „надоу”, както и „доло”. Погрешното изписване „надоло“ не е свързано с изследвания проблем.

### 2.2.2. Пет малки патета

Сходни са резултатите от интервюто за втората песен. Участниците от първа група заявяват, че поради близостта на езиците не са имали никакви затруднения. В Група 2 двама студенти с първи турски език споделиха, че не познават глагола “плувам” във връзка с липсващата дума „плуваха”. Всички участници от групата заявяват, че не чуват разлика между [плувам] и [пл’увам].

### 2.2.3. Пет маймунки

При група 1 проблемна дума се оказва „малчугани” за трима от участниците, които не чуват /л/, въпреки че правят аналогия с думите „малък” и „малюк” в украински и „маленький” в руски и украински език. В група 2 участниците, написали “мачугани” заявяват, че не чуват /л/ дори при допълнително прослушване. По отношение на глагола “лягам” отново студентите не откриват разлика в изговора на [л’агам] и [лагам], затова се затрудняват да напишат правилно формата, използвана в текста на песента.

### 2.2.4. Кравата Лола

В група 1 всички участници бяха категорични, че “В България никой не говори така”, когато получи правилното изписване на текста. Респондентите потвърждават билабиалния изговор на [л] от носителите на езика, с които са общували. Стрешилите името Лола споделят, че в руския и украинския превод на текста кравата се казва Льола/Лёла, но в българския текст, те чуват и второто л като [л’]. Идентичен е коментарът за „еспаньола” и „ола” – при все че думите са чужди за българския език. Според курсистите произношението е имитиращо испански език. В ежедневието, извън учебната среда, според шестима курсисти от украински произход, ще звучи като [еспан’оуа] и [о’уа]. Като причина те изтъкват аналога с артикулацията на думата „ало”, която чуват в ежедневието си като „ауо”. За „лати” (вместо „клати”) коментарът е, че думата е непозната и ясно се чува /л/, но не и консонантът в предходна позиция. Подобно е твърдението на 7 курсисти от група 2, по чиито думи се чува [л’ати]. За останалите думи отново артикулацията, която демонстрират студентите при интервюто, съвпада по-скоро с [л’].

## 3. Изводи

Първоначалната хипотеза се потвърди. Първата група интервюирани изпита минимални затруднения поради лексикалната и фонетичната близост на български, руски и украински език по отношение на думи, съдържащи фонемите /л/ и /л’/. Интерес представляват коментарите на курсистите от група 1, че изговорът в песните не съвпада с наблюденията им за езика в извънучебна среда. В група 2 очаквано възникна въпросът за диференцирането на /л/ и /л’/, което е трудно за носители на немски език по всяка вероятност поради липсата на такава диференциация в първия език, на който са носители. Шестима от курсистите от

група 1 споделят, че са доловили изговора на /л/ като [ў] в извънучебна среда, но не и в песните. От група 2 за това съобщават само трима курсисти. Ключов момент е, разбира се, звукът след [л] и [л']. Позицията на тези консонанти в думите също следва да се вземе под внимание при провеждането на по-нататъшни експерименти.

С проведения експеримент установихме и посочихме някои общи проблеми в перцепцията на консонантите /л/ и /л'/, които могат да бъдат обект на други следващи изследвания в областта на звуковата перцепция. Това би могло да спомогне за работата на методици и теоретици на съвременния български език от гледна точка на чуждоезиковото обучение.

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## Stimulus material

- Kolelata na avtobusa, "The Wheels on the Bus". Колелата на автобуса  
<https://open.spotify.com/track/13kH4Q3lyCcR0MDcumF5ZO?si=97294b4041484a38>
- Pet malki pateta, "Five Little Ducklings". Пет малки патета  
<https://open.spotify.com/track/4bAQUP7w4dF4LOIx6Wkt6q?si=b29d6cafd4ea44a3>
- Pet maymunki „Five Little Monkeys“. Пет маймунки  
<https://open.spotify.com/track/69ItjUUjm3kNwkjzj5eeyL?si=aa5bc662fa6b45e2>
- Kravata Lola, Lola the Cow. Кравата Лола  
<https://open.spotify.com/track/1qP3wpqTCuiC7XGBaxhWPA?si=4b8e4c049fde49fd>