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**Expressive vocabulary in Russian: Corpus and experimental studies**  
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# **Expressive vocabulary in Russian: Corpus and experimental studies**

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## **Abstract**

Russian has expressive words used for depicting specific sounds or movements, which are associated with verbs but lacking tense and agreement markers. They are divided into two types: those derived from sound imitation ('onomatopoeic interjections') and those derived from prosaic verbs ('verbal interjections'). This thesis examines whether these two types show similar properties in terms of their usage and iconic interpretation. The corpus survey has revealed that the expressive words have both non-predicative and predicative use, regardless of their origin. In non-predicative use, the items can be placed at either the right or the left end of an utterance. Expressive words appearing on the left periphery depict an unexpected or instantaneous event, followed by descriptions of its result. In predicative use, they rarely cooccur with second person subjects, which is shared by narrative use of the imperative. In addition to their usage, iconicity ratings of onomatopoeic and verbal interjections have yielded almost equal results for both categories. The iconicity of onomatopoeic interjections has its basis on the association of a specific word with a specific sound or movement, thus familiarity with individual items plays a key role. On the other hand, the iconicity of verbal interjections is an emergent property of the structural relations between base verbs and expressive forms. Therefore, this thesis concludes that onomatopoeic and verbal interjections are used and perceived as iconic in a similar fashion, but they are motivated by different sources.

## Acknowledgements

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I came up with the idea of writing something on expressive vocabulary when I was reading a fascinating book on ideophones and language acquisition/evolution, written by Dr. Mutsumi Imai and Dr. Kimi Akita. Dr. Kimi Akita kindly answered my questions via email when I was still struggling with defining research questions. Now I'm intrigued by the world of ideophones, and I want to keep engaged in ideophone research.

During my stay in the Netherlands, I worked as a research intern, studying demonstratives in Japanese and Bosnian/Croatian/Serbian. I would like to thank Dr. David Peeters and Dr. Fons Maes at Tilburg University for supervising me. That was my first experience of quantitative research in linguistics, and provided good preparations for my individual work on this thesis.

My linguistic friends from Moscow, Eva Poliakova and Anastasiia Krainova, kindly helped me prepare the experiment. I want to see you somewhere soon, and I'm dreaming of visiting Russia someday!

Lastly, I would like to express my deepest gratitude to my friends from the year I spent in Leiden and my parents in Japan, for always cheering me up.

Tokyo,  
January 2026

Keigo Kamakura

## List of abbreviations

1, 2, 3	person
ACC	accusative
COMP	complementizer
COP	copula
CVB	converb
DAT	dative
DEF	definite
FEM	feminine
EMPH	emphatic
FOC	focus
G	gesture
GEN	genitive
IDPH	ideophone
IMP	imperative
INF	infinitive
INS	instrumental
IPFV	imperfective
MASC	masculine
NEG	negation
NEUT	neuter
NOM	nominative
NPST	non-past
PFV	perfective
POL	polite register
PL	plural
POSS	possessive
PRT	particle
PST	past
Q	question
QUOT	quotative
REFL	reflexive
SG	singular
SUBJ	subject

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## 1. Introduction

Russian has expressive vocabulary used for depicting specific situations, which are associated with verbs but lacking inflectional markers. This had already been noticed by Lomonosov. Nikitina (2012, p. 167) cites Lomonosov's 1755 grammar as below.

Concluding the rules concerning verbs, one has to mention a peculiar property of the plain Russian language, which depicts fast actions derived from past indeterminate [verbs]: from *gljaděl* 'looked' – *gljad*', from *brjakal* 'banged' – *brjak*, from *xvatal* 'grabbed' – *xvat*', from *soval* 'shoved' – *sov*, from *pyxal* 'blaze' – *pyx*. All these monosyllabic derivatives of verbs have (1) the force of a converb: *gljad' na menja, molvil*, that is 'having looked at me suddenly, he said'; (2) and also encode the indicative mood: *xvat' ego za ruku*, i.e. 'suddenly grabbed his hand.'

(Lomonosov 1952, p. 539)

In Russian linguistics, this phenomenon has been studied mostly under the name of 'interjections.' There are two types of such 'interjections': **onomatopoeic interjections** and **verbal interjections**. Kor-Chahine (2008) argues that words such as *bux* and *brjak* 'bang' went through a semantic shift from the idea of reproducing a sound to depicting an action, and that this happened as the lexicalization of onomatopoeic interjections. As in the following examples, they have both non-predicative usage (1a) and predicative usage (1b).

(1) Russian (Kor-Chahine 2008, p. 157)

a. *Sapogi byli veliki i v tišine gulko groxali po asfal'tu: bux bux.*  
 boots were big and in silence loudly clatter.IPFV:PST.PL over asphalt bang bang  
 'the boots were big and in silence they were clattering loudly over the asphalt: bang bang'

b. *Pelageja [...] bux emu v nogi*  
 Pelageja bang 3SG.MASC.DAT in feet  
 'Pelageja [...] banged into his feet'

Kanerva (2019) illustrates this process with the figure below.

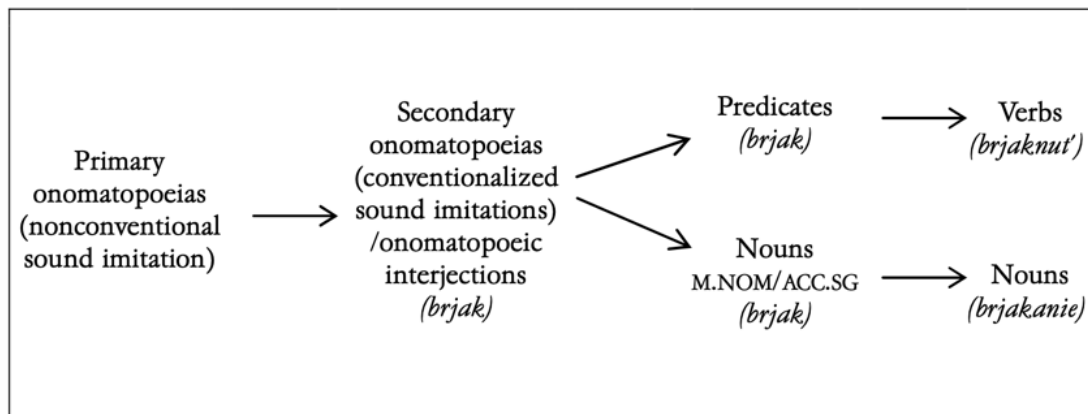


Fig. 1. Conventionalization process of Russian onomatopoeia (Kanerva 2019, p. 255).

Moreover, Kor-Chahine (2008) mentions the development of the second type, verbal interjections: she argues that words such as *gljad'* 'look' and *xvat'* 'grab' derived from the corresponding verbs *gljadet'* and *xvatat'*, by analogy with the conventionalization of onomatopoeic interjections. In the same way as onomatopoeic interjections, they have both non-predicative usage (2a) and predicative usage (2b). Note that in (2b) *xvat'* retains the argument structure of its original verb *xvatat'* 'grab': it combines with a subject and an object.

(2) Russian (Kor-Chahine 2008, p. 160)

a. *ja v bol'nicu popala, xvat', c raboty uvolili*  
 1SG into hospital end.up:PST.SG.FEM damn from job fired  
 'I ended up in the hospital, damn, they fired me from my job'

b. *kon' [...] podkralsja, xvat' kartošku iz kostra*  
 horse creep.up:PST.SG.MASC grab potato from fire  
 'the horse [...] crept up, grabbed potatoes from the fire'

As I will show in the next chapter, these expressive forms share some properties with 'ideophones,' a lexical class widely attested in the world's languages. However, there is a gap between general linguistics and Russian linguistics in the studies of ideophonic expressions. Although expressive vocabulary is receiving more and more attention in Russian linguistics recently, examples from Russian or other Slavic languages are not well treated yet in the typological literature on ideophones. This is not incomprehensible, because Slavic languages are usually not considered as rich in the number of ideophones. For example, while Rautanen (2025) attests a total number of 180 expressive words in Russian, Ono (2007) lists 4,500 ideophones in Japanese.

Expressive vocabulary in Russian is interesting in that lexical items with different origins seem to behave in a similar way. On the one hand, words derived from sound imitation are not only used independently, but also as predicates, appearing to be integrated into sentences. On the other hand, expressive forms derived from prosaic words are not only used as predicates, but also independently. It has been assumed that onomatopoeic and verbal interjections constitute the same syntactic category, and that their functions partially overlap (Viiramanta & Vihervä 2019). However, solid empirical support is not provided yet, in terms of both production and interpretation. Thus, this thesis aims to tackle this issue. Research questions are stated as follows:

1. Under what kind of syntactic and semantic conditions are expressive words in Russian used?
2. To what degrees are expressive words in Russian with different origins perceived as iconic?

Different methods are used for each question. For the first question, I extract frequent patterns in usage from the corpus search of relevant lexical items. For the second question, I conduct an experiment targeted at native speakers of Russian. These will show that onomatopoeic and verbal interjections are used and perceived similarly, but the main driver of their interpretation is different. For words derived from sound imitation, individual experience with language is most relevant, where a particular word becomes associated with a particular sound or movement. On the other hand, for the ones derived from prosaic verbs, the structural relations between base forms and expressive forms are crucial.

This thesis is organized as follows. Chapter 2 provides a literature review on the typology of ideophones and language-specific phenomena in Russian. Chapter 3 and 4 address the first and the second research question, respectively. Chapter 5 concludes the thesis.

## 2. Literature review

This chapter will first review literature on ‘ideophones’ and discuss several morphosyntactic features of the lexical class that are attested cross-linguistically (2.1). Then I will point out that expressive vocabulary in Russian shares those properties with ‘ideophones’ (2.2) and research directions will be mentioned (2.3).

### 2.1 Ideophones in general

The term **ideophone** was first introduced in the study of Bantu languages as follows: “A vivid representation of an idea in sound. A word, often onomatopoeic, which describes a predicate, qualificative or adverb in respect to manner, colour, sound, smell, action, state or intensity” (Doke 1935, p. 118). Later descriptive work revealed that similar lexical classes exist across the world’s languages. Although related lexical items are treated with alternative labels such as ‘expressives’ in Southeast Asian linguistics and ‘mimetics’ in Japanese linguistics, consensus has been made that these point to essentially the same phenomenon (Dingemanse 2018).

Dingemanse (2019) proposes that ‘ideophones’ be understood as a comparative concept, which can support both cross-linguistic generalizations and descriptions of language-specific nuances. He defines ideophones as “a member of an open lexical class of marked words that depict sensory imagery” (p. 16). There are a few things to note regarding this definition. First and foremost, ideophones work as **depiction**, in which certain aspects of the form are suggestive of its meaning. Dingemanse (2012) gives the following illustration: compare the ideophone *tyáq̄ityaq̄i* in Ewe and its paraphrase “be walking with a limp.” While the latter is a description of the action, the former is a depiction, which would be captured as “a performance, inviting us to “look” in such a way that we make believe we are experiencing the scene” (p. 655). Because of their depictive nature, ideophones are structurally marked, so that they could be distinguished from ordinary words. For instance, the abovementioned *tyáq̄ityaq̄i* is likely to be used with intonational foregrounding and reduplication.

Although ideophones universally function as depictions, they accompany different degrees of **iconicity**, defined as “perceived resemblance between aspects of form and meaning” (Dingemanse 2019, p. 18).<sup>1</sup> Crucially, ideophones are not just about **onomatopoeia**, hereby defined as “simple, underived, uninflected, and conventionalized words based on the direct imitation of sounds of the extra-linguistic reality” (Körtvélyessy & Štekauer 2024, p. 3). Sound is undoubtedly one of the fundamental sensory domains for ideophones, but the range of what ideophones could depict goes beyond that. Thus, onomatopoeia should be understood as a subset of the former (Dingemanse 2018). Fortune (1962) notes, “The fact, among others, that ideophones can be used to indicate complete

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<sup>1</sup> Regarding the conceptual difference between depiction and iconicity, Dingemanse (2012) explains as follows, by drawing an analogy from paintings: “A crucial point about depictions is that they may vary in the degree to which they are lifelike, but this does not stop them from being depictions. Compare Van Gogh’s *Almond Blossom*, Marchel Duchamp’s *Nu descendant un escalier*, and Mondrian’s *Victory Boogie Woogie*. These paintings show different degrees of perceived resemblance to reality, but they are all presented and interpreted as depictions” (p. 658).

silence makes the term *onomatopoeic* an unrepresentative term for ideophones as a whole” (p. 5), as in the following example.

(3) Shona (Fortune 1962, p. 20)

- Ndiye tónho.* ‘It was quiet.’  
*Ndiye tónhono.* ‘It was very quiet.’  
*Ndiye tónhonono.* ‘It was as still as the grave.’

While ideophones in languages from the Americas mostly represent sound and movement, those in Africa languages could cover a wider range of sensory domains. Plus, Japanese and Korean are known for their rich inventories of ideophones encoding cognitive states. Dingemanse (2012) proposes the following implicational hierarchy regarding the **sensory imagery** represented by ideophones.

(4) Implicational hierarchy of ideophone semantics (Dingemanse 2012, p. 663)

Sound < Movement < Visual patterns < Other sensory perceptions < Inner feelings and cognitive states

This hierarchy means, for example, if we find ideophones representing visual patterns in a given language, the language is expected to have ideophones for sound and movement as well. Conversely, if there is no ideophone for visual patterns, we do not expect ideophones for cognitive states either.

Languages differ in their reported number of ideophones. Akita (2021) observes a correlation between the framing typology and the typology of ideophones. Roughly speaking, languages can be classified into two groups: satellite-framed languages and verb-framed languages, according to how the path of motion is encoded in the sentence.<sup>2</sup> As in the following examples, Path is encoded outside the main verb in satellite-framed languages, such as Germanic and Slavic languages (5a). In contrast, verb-framed languages, such as Japanese, encode Path in the main verb (5b).

(5) a. Satellite-framed (e.g. English):

*A man plodded across the street.*  
 Manner Path

b. Verb-framed (e.g. Japanese):

*Otoko ga toori o tobotobo arui-te yokogit-ta.*  
 man NOM street ACC IDPH walk-CVB cross-PST  
 Manner Path  
 Lit. ‘A man crossed the street walking ploddingly.’

<sup>2</sup> Slobin (2004) proposes the third type “equipollently-framed languages,” for languages encoding Path and Manner with syntactically equal status, such as Mandarin and Thai. I will not go further into this issue in my thesis.

Of these two types, verb-framed languages are more likely to be rich in the number of ideophones: Turkish, Zulu and Basque, to name a few.<sup>3</sup> Since ideophones represent how the action looks like, they typically express Manner (Toratani & Akita 2025).<sup>4</sup> The distribution of ideophones biased toward verb-framed languages could be explained as follows: while satellite-framed languages can use the main verb to express Manner, in verb-framed languages, that position is used for Path and not available for Manner. Thus, the latter languages often encode Manner in subordinate verbs or adverbs, which could accompany ideophones as in (5b).

Ideophones can fall into different word classes such as nouns, adverbs, verbs or adjectives, in a particular language as well as across different languages (Ameka 2001). However, so far at least four features have been noticed as widespread morphosyntactic properties of ideophones: i) reduced morphology, ii) the rejection of negation and question, iii) the inverse relation between expressiveness and grammatical integration and iv) the processes of cooptation and grammaticalization.

Haiman (2018) points out the first cross-linguistic tendency: ideophones do not admit additional markers. Examples can be drawn from a variety of languages. In Zulu, ideophones do not show subject/object agreement, unlike plain verbs. Rather, tense and agreement markings are attached to the auxiliary verb *-thi* ‘say’ (6). In KiVunjo-Chaga, ideophones do not take noun class markers, unlike plain adjectives (7). These data show that ideophones resist grammatical integration. As ideophones are depictive in nature, they are preferred to stand out in a given clause.

(6) Zulu (Msimang & Poulos 2001, pp. 247-248)<sup>5</sup>

<i>Inhliziyo ya-khe</i>	<i>i-thi</i>	<b><i>du, du, du</i></b> , <i>kancane</i> .
heart	9-3SG.POSS	9.SUBJ-say
		IDPH
		slowly

‘His heart is beating very slowly.’

(7) KiVunjo-Chaga (Moshi 1993, p. 194)

<i>m-áná</i>	<i>m-olórú</i>	<b><i>(*m-)péléle</i></b>
1-child	1-cool	(*1-)IDPH

‘a cool-mannered child’

Next, ideophones are not compatible with negations and questions, as in (8).

<sup>3</sup> Turkish, Zulu and Basque are reported to have “one to two thousand” (Jendraschek 2001, p. 39), “3,000” (von Staden 1977, p. 200), “more than 4,500” (Ibarretxe-Antuñano 2006, p. 150) ideophones, respectively.

<sup>4</sup> Onomatopoeic words often depict both sound and manner of the action, such as *dosi-dosi* ‘stamping’ in Japanese. Katsuki-Pestemer (2014, p. 122) refers to such instance as “semantic conflation.”

<sup>5</sup> Glosses are on my own, not given in the original source.

(8) Hausa (Newman 1968, pp. 110-111)

- a. *Ya fadi sharap.* (affirmative)  
 3SG fall IDPH  
 ‘He fell headlong.’
- b. \**Bai tashi farat ba.* (negative)  
 NEG get.up IDPH NEG  
 ‘He didn’t get up in a flash.’
- c. \**Ya fadi sharap?* (interrogative)  
 ‘Did he fall headlong?’

Haiman (2018) explains this property as follows: ideophones represent intensely felt impressions on the stage of specific time and space. Metalinguistic embeddings of negation or interrogation imply that the utterance is from off-stage, thus they are incompatible with ideophones.

Perhaps contrary to the abovementioned properties, a number of languages are known to have ideophones fairly integrated into morphosyntax structures. But Dingemanse and Akita (2017) reveals that degrees of grammatical integration are in negative correlations with expressiveness, which could be measured by intonational foregrounding, phonational foregrounding and expressive morphology. The following two examples illustrate their claim.

(9) Japanese (Dingemanse & Akita 2017, p. 503)

- a. *Sonoutfi kawara-ga gatfagatfa-gatfa:t-to otfi-te ku-ru.*  
 soon tile-NOM IDPH-IDPH-QUOT fall-CVB come-NPST  
 |G |  
 ‘Then, the roofing tiles drop down on us with a loud clattering noise.’  
 G: both hands loosely open, palms down, slightly moving up and down in front of the speaker’s chest, synchronized with the production of the ideophone
- b. *Mo: bo:hate: girigiri-des-u.*  
 already breakwater IDPH-COP.POL-NPST  
 ‘[The sea level] was already almost reaching the breakwater.’

Disyllabic reduplicative ideophones are used in both examples (*gatfagatfa* ‘clattering noise’ and *girigiri* ‘barely’), but they differ in expressiveness. While the ideophone in (9a) indicates partial multiplication, vowel lengthening and voiceless phonation. Plus, it is accompanied by an iconic

gesture. In contrast, (9b) shows none of these signs. In terms of grammatical integration, the ideophone is embedded in a quotative construction and is syntactically optional in (9a). On the other hand, in (9b) the ideophone occurs in a nominal construction which is integrated into the predicate. Thus, the more expressive an ideophone is, the less it is integrated in the morphosyntax structure of the sentence.

Recently, we have seen attempts to understand ideophones in a broader context: Heine (2023) classifies ideophones as one of the types consisting of ‘interactives,’ which are defined as linguistic elements grounded in social interaction and immediately directed to the discourse situation. In interactives, Heine includes items such as discourse markers, interjections and vocatives.

Heine (2023) explores relations between interactive grammar and sentence grammar. On the one hand, interactives are often coopted from units of sentence grammar: discourse markers like *in fact* and interjections like *hell* have their origins in corresponding forms of sentence grammar. Ideophones could develop from prosaic words with morphological operations such as clipping or reduplication. In Swahili, the segment *mwa* was clipped out from the verb *ku-mwag-a* ‘to pour out/spill,’ which resulted in the ideophone ‘pour water suddenly/at once’ (Baldi & Wamitila 2014, p. 42).<sup>6</sup>

Japanese also has a number of deverbal ideophones. They are formed via reduplication, such as *ikiiki* ‘lively’ (< *iki(ru)* ‘live’), *ukiuki* ‘buoyant’ (< *uk(u)* ‘float’) and *wakuwaku* (< *wak(u)* ‘spring up’). In these examples, the sound /k/ symbolizes upward movement accompanying happy feelings. Crucially, the same sound symbolism is not clearly observed in the original verbs. Akita and Imai (2022) explain such effects by the term **emergent iconicity**. Iconicity of this type originates from lexical and grammatical systems of a given language. In the case of Japanese deverbal ideophones, they are perceived as iconic because of the morphological operation involved, i.e. reduplication. Emergent iconicity is distinguished from **primary iconicity**, which involves direct mappings between sound and meaning. It is thus biologically grounded and expected to be cross-linguistically available. For instance, onomatopoeia representing laughter often include /h/ and an open vowel, like *ha-ha* in English and *ahaha* in Japanese.

On the other hand, the fact that ideophones can commonly expect grammaticalization from interactive forms into units of sentence grammar sets them off from the other types of interactives. In the following example, the ideophone *kpokporo* functions as a predicate, and it can be analyzed as a stative verb. It has undergone decategorization to the degree that it has lost its morphosyntactic independence. Like plain verbs, it takes verbal inflections for subject agreement and negation. Also, it has lost its prosodic prominence (Heine 2023).

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<sup>6</sup> In Southern Bantu languages, it is common to derive ideophones from verbs by vowel alternations. In Sesotho, ideophones are productively derived from verbs by replacing the infinitive *-a* ending with *-i* (Kunene 2001). Similar derivations are reported in Shona (Fortune 1962).

(10) Siwu (Dingemane 2017, p. 371)

*ì-i-kpokporo.*

it-NEG-IDPH.hard

‘It isn’t *kpokporo* [hard].’

Thus, there is a ‘two-way traffic’ between ideophones and prosaic words: the development from ideophones to non-ideophonic words and the development from non-ideophonic words to ideophones are both possible. The mechanism involved in each process is grammaticalization and cooptation, respectively (Heine 2023).

So far, we have seen the following four morphosyntactic properties of ideophones: i) reduced morphology, ii) the rejection of negation and question, iii) the inverse relation between expressiveness and grammatical integration and iv) the processes of cooptation and grammaticalization. The next section will show that expressive vocabulary in Russian shares these properties with ideophones.

## 2.2 Language-specific phenomena in Russian

Russian has expressive vocabulary with two different origins. The first type is formed from prosaic verbs, while the second type comes from sound imitation. This thesis refers to the first type as verbal interjections and to the second type as onomatopoeic interjections.<sup>7</sup> Below I will review literature on each type.

Nikitina (2012) studies lexical items of the first type. She claims that they bear a striking resemblance to ideophones, though they are not fully productive, as only some of the verbs describing certain kinds of physical action have corresponding verbal interjections. They are typically monosyllabic, ending in a particular set of consonants (e.g. *-k*, *-x*) or consonant clusters (e.g. *-sk*, *-rk*). Their derivation is not fully predictable: they may carry a palatalized consonant at the end, which does not appear in the root of the original verb (e.g. *xvat*’ – *xvatat*’ ‘grab’).

Verbal interjections feature reduced morphology in the same way as ideophones. They do not show markings of tense and subject agreement in person, number or gender, which are usually marked on regular finite verbs by inflection. Moreover, verbal interjections are not compatible with affixes, except for aspectual prefixes that could be used in reduplicative forms. For instance, a prefixed form with *pere-* (‘across, over’) is allowed in (11a), while it cannot appear as a sole predicate, as in (11b) (Nikitina 2012).

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<sup>7</sup> In this thesis, I will use the traditional term ‘interjections’ to refer to the expressive vocabulary in question. Nowadays ‘ideophones’ and ‘interjections’ are usually distinguished, though the boundary between ideophones and interjections is not always clear (Heine 2023, pp. 175-176). Dingemane (2023, p. 467) gives the following explanation: “Ideophones are typically depictions *of* events, while interjections are typically responses *to* them. Perhaps a slap in the face will help the reader to appreciate the difference. The *sound* of the slap is the main business of an ideophone to depict; your *outcry* in response to it is an interjection.”

(11) Russian (Nikitina 2012, pp. 173-174)

- a. *Da ja tak, skok-pereskok s kamnja na kamen', –*  
 but 1SG this.way leap-PERE.leap from stone to stone  
*smuščënno ulybajas' otvečal Xasan*  
 with.embarrassment smile:CVB answer:PST.SG.MASC Hasan  
 'Well, that way, I leaped from one stone to another, – answered Hasan with an embarrassed smile.'

- b. \**Da ja tak, pereskok s kamnja na kamen' ...*  
 but 1SG this.way PERE.leap from stone to stone  
 'Well, that way, I leaped from one stone to another...'

Furthermore, verbal interjections do not occur in questions (12a, b) and in sentences with negation (c).

(12) Russian (Nikitina 2012, p. 174)

- a. \**Kogo on tolk v bok?*  
 whom 3SG.MASC push in side  
 'Whom did he push in the side?'

- b. \**Pryg li on na derevo?*  
 jump Q 3SG.MASC on tree  
 'Did he jump on a tree?'

- c. \**On ne xvat' stulom ob pol.*  
 3SG.MASC NEG strike chair:INS against floor  
 'He didn't strike a chair against the floor.'

Nikitina (2012) attributes these properties to indexical meanings of verbal interjections: they “serve as immediate, unmediated representations of individual events in real time” (p. 179). Thus, they are not compatible with contexts in which the event is presupposed as in specific questions like (12a), its existence is questioned (12b) or negated (12c). The indexical meanings of verbal interjections are also reflected in the fact that while they cannot be used as a sole predicate in subordination (13), they can appear in a subordinate clause when coordinated with a fully inflected verb (14).

(13) Russian (Anastasiia Krainova, p.c.)<sup>8</sup>

?? *Ja uvidel, kak on bux v jamku.*

1SG see.PFV:PST.SG.MASC how 3SG.MASC bang in hole

‘I saw him fall into the hole.’

(14) Russian (Nikitina 2012, p. 180)

*Vy srazu uvidite, kak on – šast’! i sprjačetsja za kolonnu . . šustryj blin*

2PL right.away see.PFV:2PL how 3SG.MASC dart and hide.PFV:3SG behind column quick PRT

‘You’ll see right away how he darts and hides behind a column... He’s quick like hell’

The use of verbal interjections is sensitive to genres. Nikitina (2012) shows that verbal interjections are more abundant in spoken narratives than in written language. She compares two genres, *roman* ‘novel’ and *skazka* ‘folktale.’ While the former is mostly based on standard written language, the latter preserves features of oral narration. According to her data, words such as *xvat* ‘grab’ and *pryg* ‘jump’ are more frequently observed in *skazka*, compared to those in novel *roman*, on a statistically significant level.

There exists a phenomenon seemingly related to verbal interjections: ‘*nu*-drop.’ Most verbal interjections have corresponding prosaic forms with the *-nu-* suffix (e.g. *jurk – jurknut*, *pryg – prygnut*). In Russian, the *-nu-* suffix with a number of verbs could be optionally dropped in past tense forms. Comparing several factors including phonology, morphology and semantics, Nessel and Marakova (2012) argues that morphology is the most influential trigger. Moreover, the occurrences of *nu*-drop have been increasing throughout the diachronic change from the 19<sup>th</sup> to the 21<sup>st</sup> century. Their conclusion is as follows.

(15) The distribution of Ø-forms and *Nu*-forms in the beginning of the 21<sup>st</sup> century

(Nessel & Marakova 2012, pp. 62-63)

a. Ø-forms are virtually obligatory:

All finite forms except unprefixated masculines

b. Ø-forms are dominant, but not obligatory:

Unprefixated masculine finite and prefixated active participle

c. *Nu*-forms dominant

Gerunds and unprefixated active participles

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<sup>8</sup> It is possible to use the present tense form *vižu* ‘I see’ for the matrix verb (historical present), but it does not help to make the sentence more acceptable than (13). With *vižu*, the sentence is interpreted as if the speaker looks at the video recording where *on* ‘he’ fell into the hole.

However, examples we have seen so far suggest that verbal interjections are not mere substitutions of past tense forms and cannot be reduced to the omissions of *-nu-* suffix. Thus, the expressive forms in question need separate discussions from those dedicated to ‘*nu-drop*.’

On the other hand, Kanerva (2023) studies expressive vocabulary with onomatopoeic origins. She shows that among her data of onomatopoeic interjections obtained from the Russian National Corpus, around 35% are in predicative use. Based on the assumption that the syntactic status of onomatopoeic interjections is reflected in punctuations, she conducted an experiment in which the experimenter asks Russian-speaking participants to replace *bac* ‘bang,’ *pljux* ‘plop’ and *zvjak* ‘clink’ used in the stimulus sentences with alternative forms, such as verbs, nouns and adverbs. A correlation was found between the absence of punctuation marks and the use of verbs as the equivalent of *bac*, *pljux* and *zvjak*, which suggests that those words with onomatopoeic origins could function as predicates.

Kanerva (2023) also investigates the correlation between expressiveness and grammatical integration, which is pointed out by Dingemanse and Akita (2017). She marks intonational prominence (based on pauses), expressive morphology (based on reduplications) and syntactic independence (based on punctuation marks). Quantitative analysis of her data from the Corpus of Spoken Russian shows strong correlations between intonational foregrounding/expressive morphology and syntactic independence.

Russian is interesting in terms of the relations between expressive vocabulary and prosaic words. Examples we have seen so far indicate that ideophonic items could be formed from verbs with reduced morphology. Moreover, as already illustrated in Figure 1 in Chapter 1, plain verbs and nouns could be derived from onomatopoeia. As in (16), onomatopoeia go into verbal paradigms with the *-nu-* suffix.<sup>9</sup> In this case, derived verbs can receive tense markings.

(16) Russian (Kanerva 2019, p. 258)

*On            baxnul                    kulakom   po stolu.*  
 3SG.MASC bang:PST.SG.MASC   fist:INS   on table  
 ‘He banged his fist on the table.’

Onomatopoeic words would go into nominal paradigms themselves (17a) or with the nominalizing *-n’el-nie* suffix (17b). These nouns can receive case markings.

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<sup>9</sup> Fidler (2019) reports that Czech also features a number of verbs with onomatopoeic roots. In most cases, such verbs are derived with the *-nou-* suffix. *Nou-*verbs in Czech typically function as semelfactive verbs, which are semantically compatible with onomatopoeia depicting an action at a specific moment. The *-nou-* suffix in Czech is comparable to *-nu-* in Russian, and Fidler’s analysis on Czech can be applied to our discussion on Russian as well.

(17) Russian (Kanerva 2019, pp. 257-258)

a. *Každyj skrip, každyj ščël'k kidal menja v pot i xolod...*  
 every squeak every clink make:PST.SG.MASC 1SG.ACC in sweat and cold  
 'Every squeak, every clink made me hot and cold'

b. *Iz-pod samyx nog moix čto-to s protivnym pljuxan'em šaraxnulos' v vodu.*  
 From-under very feet my something with nasty:INS plopping:INS splashed in water  
 'From right under my feet something with a nasty plopping splashed into the water.'

Thus, in Russian, the development from ideophones to non-ideophonic words (grammaticalization) and the development from non-ideophonic words to ideophones (cooptation) are both visible.

Among the sensory domains in Dingemans's hierarchy mentioned in the previous section, expressive words in Russian mainly depict sound and movement. Rautanen (2025) shows that even those with non-onomatopoeic origins could have sound symbolism effects, which are not clearly seen in prosaic words. For instance, the word-final /k/ symbolizes the brevity and sharpness of the action. This effect is observed not only in *brjak* (onomatopoeia; 'bang'), but also in *nyrk* (non-onomatopoeia; 'dive'). The sound symbolism in *nyrk* is likely to originate from language-specific morphology (i.e. the loss of inflectional markers), which could be captured as emergent iconicity proposed by Akita and Imai (2022).

Our literature review reveals that expressive forms in Russian, though not very productive, have characteristics that are common among ideophones across languages: i) reduced morphology, ii) the rejection of negation and question, iii) the inverse relation between expressiveness and grammatical integration and iv) the processes of cooptation and grammaticalization.

### 2.3 Research directions

We have seen two types of expressive vocabulary in Russian: onomatopoeic and verbal interjections. However, solid empirical data have not been provided yet as to how lexical items in each category are used and interpreted. First, corpus search allows us to attest syntactic and semantic conditions these expressive words follow (Chapter 3). On the other hand, experimental studies could reveal relations between expressive forms and their fully inflected counterparts in terms of iconicity (Chapter 4).

### 3. Usage of expressive vocabulary in Russian

This chapter will explore under what kind of syntactic and semantic conditions expressive words are used. As backgrounds, I will first mention characteristics of ideophones contrastive to other discursive elements in language (3.1.1), and functions of the expressive words in Russian (3.1.2). Then I will introduce the method (3.2) and present the results (3.3). I will further point out similarities between expressive vocabulary and narrative use of the imperative (3.4) and conclude this chapter (3.5).

#### 3.1 Backgrounds

##### 3.1.1 Constructions presenting ideophones

Heine (2023) captures ideophones as one of the types constituting the category ‘interactives,’ defined as linguistic elements grounded in social interaction and immediately directed to the discourse situation. Interactives are mostly posited at the left periphery of an utterance, as illustrated in Table 1.

Table 1. Examples of English interactives in the left periphery of an utterance (Heine 2023, p. 19)

Type of interactives	Example
Attention signal	<i>Hey</i> , there is no alien in the fridge.
Directive	<i>Listen</i> , there is no alien in the fridge.
Discourse marker	<i>After all</i> , there is no alien in the fridge.
Evaluative	<i>Great</i> , there is no alien in the fridge.
Interjection	<i>Oh</i> , there is no alien in the fridge.
Response signal	<i>No</i> , there is no alien in the fridge.
Social formula	<i>Sorry</i> , there is no alien in the fridge.
Vocative <sup>10</sup>	<i>Darling</i> , there is no alien in the fridge.

However, ideophones are commonly placed at the right periphery (Heine 2023). Examples include Daagare, where ideophones often appear as independent clauses at the sentence-final position, with a pause before they are pronounced.

(18) Daagare (Bodomo 2006, p. 205)

*à lánggbàràà lá ká ó dé lóó, gbàngbàràng.*

DEF hook FOC COMP 3SG take throw down IDPH

‘It is the hook s/he has thrown down.’

<sup>10</sup> Vocatives could be placed utterance-finally, as in *What’s up bro?*. Such vocatives bear different functions from those of vocatives placed at the left periphery. Biber et al. (1999, p. 1113) states as follows: “an initial vocative can serve as an attention-getter and can also have the function of clearing space for a lengthy turn. The final vocative, on the other hand, is more likely to occur after a short remark, where attracting attention is not a problem, and where the social role of the vocative can combine with that of singling out the addressee.”

Heine (2023) argues that the patterns of ideophone placement can be deduced from discourse constructions employed for presenting ideophones. As in Table 2, he identifies three main discourse constructions: free construction, quotative construction and modifier construction. Examples in (19) illustrate each construction.

Table 2. The main discourse constructions presenting ideophones (Heine 2023, p. 153).

Construction	Discourse status of ideophone	Marking	Placement
Free construction	Independent utterance	No marking	No constraints
Quotative construction	Discourse complement	Verb for ‘say,’ ‘do,’ ‘go,’ etc., and/or a quotative marker	In the slot reserved for direct speech
Modifier construction	Appositional parenthetical	No marking	After the text piece they refer to

(19) English (Heine 2023, p. 153)

- a. *Thud!*
- b. *And the vase went thud!*
- c. *The vase fell to the ground – thud!*

Heine (2023) states as follows: “These observations are based on findings made in a number of genetically unrelated languages spoken in various regions of the world. But the extent to which they apply generally across languages is an issue that is in need of further research” (p. 152).

At the level of individual languages, it would be possible to identify relevant constructions in a more specific way. In line with these discussions, this chapter aims to identify constructions presenting ideophonic items with different origins in Russian.

### 3.1.2 Functions of expressive vocabulary in Russian

Before investigating corpus data of Russian, let us get an overview on the functions of relevant vocabulary. As already illustrated in Chapter 2, expressive words in Russian mainly depict sound and movement, but previous studies mention their additional functions. Kanerva (2023) observes that onomatopoeic interjections are not only used for sound imitation, but also for representing emotions of the speaker. As in (20), they could express a variety of emotions such as surprise and joy.

(20) Russian (Kanerva 2023, p. 171)

*v žizni nikogda ne byvajut odni nesčast'ja. Neudači, neudači, potom – **trax!** – udača*  
 in life never NEG exist:3PL one.PL misfortune.PL Failure failure then bang success  
 ‘Life is never all misfortune. Failure, failure, and then – bang! – success’

Onomatopoeic interjections are also employed to attract the attention of listeners or readers, as in (21). In this example, the author attempts to promote engagement of readers unfamiliar with physics, by depicting nuclear fusion as if it were an event in a fairy tale.

(21) Russian (Kanerva 2023, p. 172)

*Stuknuli proton v proton – **xlop!** – energija prevratilas' v kvark.*  
 slam:PST.PL proton in proton clap energy turn:PST.SG.FEM in quark  
 ‘They slammed a proton into another – Clap! – The energy turned into a quark.’

Furthermore, Viiramanta and Kanerva (2024) show the result of their corpus survey on *bats* ‘bang,’ which is one of the most frequently used onomatopoeic interjections in Russian. They reveal that *bats* is not merely sound imitation. Rather, there are many examples where sound is not directly involved. The authors classify the examples they found on the Russian National Corpus into the following three types: (i) indicating the occurrence of the sound that can be depicted with *bats*, (ii) indicating a sudden, unexpected event involving possible (imagined or simulated) sound, (iii) indicating a sudden, unexpected event (no sound involved).

They note that in (ii) and (iii), “*bats* is often combined with conjunctions that indicate temporal order or causal relation, such as *i* ‘and’ or *a* ‘and, but’; adverbs emphasizing suddenness, such as *neozhidanno* ‘unexpectedly’, *vdrug* ‘suddenly’; or punctuation marks, such as a dash” (p. 7). (22a) and (22b) illustrate usage of *bats* in (ii) and (iii). Crucially, *bats* can be replaced with the corresponding verb *batsnut* only when the sound is present. It is not possible to use *batsnut* in contexts like (22b).

(22) Russian (Viiramanta & Kanerva 2024, p. 9)

a. *Potom vzjal bumazhku so stola, zavernul v nee oba znaka,*  
 then take:PST.SG.MASC paper from table wrap:PST.SG.MASC in 3SG.FEM.ACC both token  
*szhal vse éto v kompaktnyj komok i – **bats** v okno.*  
 squeeze:PST.SG.MASC all this in compact ball and bang in window  
 ‘Then he took the sheet from the table, wrapped both tokens in it, made a small ball out of it and – bang through the window.’

- b. *Tak i poshlo: 1896 god – Afiny, 1900 – Parizh, 1904 – Sent-Luis.*  
 this.way also go:PST.SG.NEUT 1896 year Athens 1900 Paris 1904 St.Louis  
*I vdrug – bats! – 1906 god – snova Afiny.*  
 and suddenly bang 1906 year again Athens  
 ‘That’s how it went: in 1896 – Athens, 1900 – Paris, 1904 – St.Louis. and suddenly – bang – in  
 1906 – Athens again.’

Lastly, Milosavljević (2018) points out potential restrictions on the distribution of lexical items in question. In her corpus of Serbian expressive vocabulary in predicative usage, 37% of the instances take personal pronouns as their subject. Examples accompanying first person subjects as in (23a) constitute 17%, while the rest take third person pronouns as their subject, as in (23b).

(23) Serbian (Milosavljević 2018, p. 213)

- a. ...*i ja bam bam pravac u oko.*  
 and 1SG bang bang direction in eye  
 ‘and I directly punched him in the eye’
- b. *Sunča se žaba povazdan na obali,*  
 frog REFL sunbathe:3SG all.the.time on shore  
*a kad ti odovud proviriš, ona buć u vodu!*  
 and when 2SG from.here peek:2SG 3SG.FEM splash in water  
 ‘The frog sunbathes all the time on the shore, and when you peek from here, it splashes into the water!’

Interestingly, no instances were found with second person subjects. Expressive narration can only concern the speaker (or the narrator speaking in the first person) or a third person whose actions are depicted in narration. Constructed examples with second person subjects as in (24) are reported as unnatural.

(24) Serbian (Milosavljević 2018, p. 214)

- a.?? *Ti pljus u vodu.*  
 2SG splash in water  
 ‘You splashed into the water.’
- b.?? *Vi viz u drvo.*  
 2PL hit in tree  
 ‘You hit the tree.’

Such person restrictions have not been investigated regarding the expressive vocabulary in Russian, which will be worth looking at in our corpus research.

### 3.2 Method

In this thesis (both Chapter 3 and 4), I survey the 14 items listed in Table 3. The process of selection is as follows. First, I extracted expressive forms that could be used as predicates from the lists in Kor-Chahine (2008), Nikitina (2012), Kanerva (2023) and Rautanen (2025). I consulted Fasmer’s etymological dictionary (1986-1987) myself and classified them into two types: onomatopoeic interjections (marked as *zvukopodražanie* ‘sound imitation’) and verbal interjections (anything else). Then I had sessions with two native speakers of Russian studying linguistics in Moscow. My consultants judged several items in my list as marginal in Contemporary Russian (e.g. *tolk* ‘push’), which I decided not to use in this study. We got 7 items for each category.

Table 3. List of expressive items surveyed in this thesis<sup>11</sup>

#### Onomatopoeic interjections

Form	Meaning
<i>brjak</i>	‘bang’
<i>bux</i>	‘bang’
<i>xlop</i>	‘clap’
<i>bulyx</i>	‘splash’
<i>pljux</i>	‘splash’ ‘plop’
<i>švyr’</i>	‘hurl’
<i>ščělk</i>	‘click’ ‘flick’

#### Verbal interjections

Form	Meaning
<i>nyrk</i>	‘plunge’
<i>pryg</i>	‘jump’
<i>jurk</i>	‘whisk’
<i>šmyg</i>	‘dart’
<i>dryg</i>	‘jerk’
<i>xvat’</i>	‘grab’ ‘strike’ ‘notice absence (of something)’
<i>tyk</i>	‘poke’

For this chapter, I searched these items in the main corpus of the Russian National Corpus, which contains more than 389,000,000 words as of December 2025. For the purpose of data cleaning, I manually excluded irrelevant examples. First, there were a number of dictionary-like instances, where the text explains how the given item is used.

(25) Russian

*Vozmožno, ot zvukopodražanija **bux**. Tak izobražajut russkie zvuk udara kolokola.*  
possibly from onomatopoeia bang this.way depict:3SG Russians sound hit:GEN bell:GEN  
‘Possibly from the onomatopoeia *bux*. This is how Russians depict the sound of ringing a bell.’

<sup>11</sup> I did not include *bats* ‘bang,’ as it is extensively studied by Viiramanta and Kanerva (2024).

Furthermore, I attested items used with unrelated meanings (i.e. homonyms), such as *Bux*, *Jurk*, *Šmyg* and *Tyk* used as person names, *xlop* meaning ‘peasant’ and *pljux* meaning ‘punch.’

Onomatopoeic words can also be used as nouns indicating the sound or movement, as already mentioned in (17a), repeated here as (26). This is not possible in verbal interjections. For the purpose of direct comparison between onomatopoeic and verbal interjections, I excluded such examples as well. Table 4 lists the number of samples for each item left after the data cleaning process.

(26) Russian (Kanerva 2019, p. 258)

*Každyj skrip, každýj ščělk kidal menja v pot i xolod...*  
 every squeak every clink make:PST.SG.MASC 1SG.ACC in sweat and cold  
 ‘Every squeak, every clink made me hot and cold’

Table 4. Number of samples obtained from the corpus

#### Onomatopoeic interjections

Form	All samples	Excluded samples	Samples studied
<i>brjak</i>	114	30	84
<i>bux</i>	478	79	399
<i>xlop</i>	688	36	652
<i>bulyx</i>	96	0	96
<i>pljux</i>	101	36	65
<i>švyr’</i>	6	0	6
<i>ščělk</i>	385	50	335

#### Verbal interjections

Form	All samples	Excluded samples	Samples studied
<i>nyrk</i>	16	0	16
<i>pryg</i>	224	1	223
<i>jurk</i>	44	8	36
<i>šmyg</i>	116	6	110
<i>dryg</i>	7	0	7
<i>xvat’</i>	590	2	588
<i>tyk</i>	80	10	70

### 3.3 Results<sup>12</sup>

Examples I found on the corpus are mostly distinguishable between predicative and non-predicative usage. It is notable that in Russian, quotative construction in the sense of Heine (2023) is not a productive strategy for presenting expressive items. In my corpus search, I only found three relevant examples where they cooccur with the verb ‘do’ (*delat’/sdelat’*), listed as follows.

(27) *A odnaždy posovetoval ne igrat’ s ètimi igruškami, oni mogut sdelat’ «bux!»*  
 and once advise:PST.SG.MASC NEG play.IPFV:INF with these toys they can do.PFV:INF bang  
 ‘And once he advised (them) not to play with these toys, they can do “bang!”’

<sup>12</sup> Examples given in this section are all obtained from the Russian National Corpus. Glosses are on my own.

(28) *Ty na solnyško posmotri!*      *Vot-vot bulyx sdelat!*  
 2SG at sun.DIM see.PFV:IMP      about.to splash do.PFV:3SG  
 ‘(You) look at the sun! It’s about to do splash!’

(29) *oni vse delali*      *sinxronno: xvat’! xvat’! xvat’!*  
 3PL all do.IPFV:PST.PL in.sync grab grab grab  
 ‘they are all doing in sync: grab! grab! grab!’

I consider expressive words to function as predicates when they assign the thematic role of agent to a noun phrase (30) and/or the thematic role of goal to an oblique phrase (31). I manually marked every example from the corpus as predicative or non-predicative usage, and Table 5 shows its result.

(30) *I vdrug ona rezko pry!*  
 and suddenly 3SG.FEM sharply jump  
 ‘And suddenly she jumped sharply!’

(31) *Berēt menja za ukazatel’nyj palec – tyk v knigu!*  
 take:3SG 1SG.ACC over indexing finger poke at book  
 ‘(He) took my finger – poked a book!’

Apart from *švyr* ‘hurl,’ for which I could not find an instance of its non-predicative use probably due to the limited number of examples on the corpus, all items turned out to have both predicative and non-predicative usage. Apparently, verbal interjections are more likely to be used as predicates compared to onomatopoeic interjections, but I did not get a statistically significant result.

Table 5. Usage of expressive vocabulary

#### Onomatopoeic interjections

Form	Predicative	Non-predicative
<i>brjak</i>	64	20
<i>bux</i>	257	142
<i>xlop</i>	235	417
<i>bulyx</i>	72	24
<i>pljux</i>	24	41
<i>švyr’</i>	6	0
<i>ščelk</i>	29	306
<b>Total</b>	<b>687</b>	<b>950</b>

#### Verbal interjections

Form	Predicative	Non-predicative
<i>nyrk</i>	15	1
<i>pryg</i>	154	69
<i>jurk</i>	22	14
<i>šmyg</i>	79	31
<i>dryg</i>	1	6
<i>xvat’</i>	357	231
<i>tyk</i>	14	56
<b>Total</b>	<b>642</b>	<b>408</b>

Let us first take a look at the non-predicative usage. It turns out that expressive words in Russian could appear both at the right periphery and at the left periphery in the sentence, as illustrated in the following three examples. Note that the actions themselves are described by prosaic verbs (i.e. *sxvatila* ‘grabbed,’ *xlopat* ‘clap’ and *pljuxajutsja* ‘plop’), and expressive words serve to highlight intensity of the actions. In (33) and (34), reduplication of the expressive words allows the narrator to represent the actions happening one after another.

(32) *ja s podokonnika goršok s fiolkami sxvatila i Svetke ob golovu – brjak!*  
 1SG from windowsill pot with violets grab:PST.SG.FEM and Svetka.DAT on head bang  
 ‘I grabbed a pot of violets from the windowsill and hit Svetka on her head – bang!’

(33) *Sosiska ne pojavilas’, i Kleopatra stala xlopat’ bystree: xlop-xlop-xlop!*  
 sausage NEG appear:PST.SG.FEM and Cleopatra begin:PST.SG.FEM clap faster clap-clap-clap  
 ‘Sausage did not appear, and Cleopatra began to clap faster: clap-clap-clap!’

(34) *Bulyx, bulyx – pljuxajutsja oni odin za drugim v stekljannyj akvarium.*  
 splash splash plop:3PL 3PL one\_after\_another in glass acuarium  
 ‘Splash, splash – they plop one after another into the glass aquarium.’

Expressive words derived from prosaic verbs can also be used both at the right periphery (35) and at the left periphery (36).

(35) *No tol’ko liš’ myšonok opravilsja ot straxa, tol’ko... i tak – jurk!*  
 but just\_as mouse.DIM recover:PST.SG.MASC from fear just and then whisk  
 ‘But just as the little mouse recovered from fear, just... and then – whisk!’

(36) *Šmyg! – čto-to skol’znulo za ugol.*  
 slip something slip:PST.SG.NEUT over corner  
 ‘Slip! – something slipped out the corner.’

One may wonder about expressive words at the left periphery, as cross-linguistically, ideophones tend to be placed at the right periphery (Heine 2023). When placed at the left periphery, expressive words in Russian often cooccur with words describing temporal sequence, such as *i* ‘and’ or *a potom* ‘and then.’ As in the following examples, expressive words are followed by the descriptions of results that arise from the actions they depict.

- (37) *Začerpývajú drúgój rukoj kusok grjazí i – xlop! – obektiv zakryt.*  
 scoop.up:1SG other\_hand.INS piece dirt.GEN and bang objective.lens closed  
 ‘I scoop up a piece of dirt with my other hand and – bang! – the objective lens is closed.’
- (38) *Bux! – i on snova povalilsja na zemlju.*  
 bang and 3SG.MASC again fall:PST.SG.MASC on ground  
 ‘Bang! – and he again fell on the ground.’
- (39) *snačala ne dobudiš’sja, a potom xvat’ – uže i sled proctyl.*  
 at.first NEG wake.up.someone:2SG and then notice.absence already EMPH trace gone  
 ‘At first you can’t wake him up, and then notice – the trace is already gone.’

Expressive vocabulary could convey nuances like unexpectedness or instantaneousness. The following examples include explicit indication of such nuances (i.e. *neožidanno* ‘unexpectedly,’ *vdrug* ‘suddenly’ and *tut že* ‘immediately’).

- (40) *Neožidanno sverxu s gory na mašinu skatilsja ogromnyj oblomok skaly:*  
 unexpectedly above from mountain on car roll.down:PST.SG.MASC huge piece rock.GEN  
*vo-ot takoj kamen’, xlop!*  
 here.is such stone bang  
 ‘Unexpectedly a huge piece of rock rolled down from above the mountain onto the car:  
 here is such a big stone, bang!’
- (41) *I vdrug ščělk: Vitalij vyključil radio.*  
 and suddenly click Vitalij turn.off:PST.SG.MASC radio  
 ‘And suddenly click: Vitalij turned off the radio.’
- (42) *I tut že pljux – i obratno spat’.*  
 and immediately plop and back sleep:INF  
 ‘And immediately plop – and back to sleep.’

Note that expressive words in these examples defocus the agency of event participants. Instead, they highlight the manner of the action, especially its sudden nature. Fidler (2019) reports that such feature is commonly seen in Czech onomatopoeia as well.

Let us now turn to the analysis of predicative usage. From a semantic side, nuances similar to those mentioned above are conveyed in the following examples as well.

(43) *Graždanin!* – *trogaju mužika za plečo. Vaši dokumenty!* –  
 sir tap:1SG man over shoulder your documents  
*a on vdrug – xlop na perron.*  
 and 3SG.MASC suddenly slam on platform  
 ‘‘Sir!’’ – I tapped the man on the shoulder. ‘‘Your documents!’’  
 – and he suddenly – slammed onto the platform’

(44) *Obratno priexali prjamo k otxodu varšavskogo ckorogo i srazu nyrk v vagon.*  
 back arrive:PST.PL right to departure Warsaw\_express.GEN and immediately dive in carriage  
 ‘We arrived back right at the departure of the Warsaw express train and immediately dived into the carriage.’

Compared to the non-predicative usage, there are less examples where reduplication is involved. But (45) shows that it is possible even in the predicative use.

(45) [...] *glupaja rybka k nam podplyvët, a my eë xvat’-xvat’ rukami.*  
 silly fish.DIM to 1PL.DAT swim.up:3SG and 1PL 3SG.FEM.ACC grab-grab hands.INS  
 ‘a silly fish swims up to us, and we grab it with hands.’

Next, I did a quantitative survey on the person of subject of expressive vocabulary in predicative usage. The result is summarized in Table 6. It turns out that second person subjects are very rare both in onomatopoeic and verbal interjections, exactly like the expressive words in Serbian surveyed by Milosavljević (2018).

Table 6. Subject of expressive vocabulary in predicative usage

#### Onomatopoeic interjections

	1 <sup>st</sup> person	2 <sup>nd</sup> person	3 <sup>rd</sup> person
<i>brjak</i>	19	0	45
<i>bux</i>	20	3	119
<i>xlop</i>	23	2	210
<i>bultyx</i>	7	0	65
<i>pljux</i>	5	1	18
<i>švyr’</i>	0	0	6
<i>ščelk</i>	7	0	22

### Verbal interjections

	1 <sup>st</sup> person	2 <sup>nd</sup> person	3 <sup>rd</sup> person
<i>nyrk</i>	4	0	11
<i>pryg</i>	10	2	142
<i>jurk</i>	3	0	19
<i>šmyg</i>	9	2	68
<i>dryg</i>	0	0	1
<i>xvat'</i>	76	9	272
<i>tyk</i>	2	0	12

### 3.4 Connections to narrative use of the imperative

The distribution of expressive vocabulary in predicative usage bears a striking resemblance to that of the so-called narrative use of the imperative. In this use, imperative forms refer to unexpected actions without any directive meaning, as illustrated in (46).<sup>13</sup>

(46) Russian (Fortuin 2001, p. 134)

*I vdrug togda, v tu sekundu, kto-to i shepni mne na uxo.*  
 and suddenly then in that second someone EMPH whisper.PFV:IMP 1SG.DAT in ear  
 ‘And suddenly then, in that second, someone whispered something in my ear.’

This non-command use of imperative is considered to be a reflex of the Proto-Indo-European optative (Gronas 2006). It mostly appears in narrative discourse, “where past events are described in temporal order” (Fortuin 2001, p. 135). Thus, it is genre-sensitive, in parallel with the expressive vocabulary.

The functional overlap between the narrative imperative and the expressive vocabulary yields similarities in other features. First, the Russian imperative in general lacks markings of tense and agreement features (person, number and gender). Fortuin (2001) argues that the absence of tense and agreement markings is related to the fact that the imperative imitates “the impulse directed at the realization of the situation” (p. 68), in the case of narrative use. I suspect this is also true for the expressive vocabulary, which features reduced morphology. Second, while the directive imperative bears a prohibitive meaning when negated, the narrative imperative cannot be used in negative sentences (Egbert Fortuin, p.c.), in the same way as the expressive words.

Lastly, both the narrative imperative and the expressive vocabulary take first or third person as subjects in most cases, and second person subjects are rare. Fortuin (2001) notes, “the infrequent occurrence of the second person has to do with the narrative discourse: it is pragmatically odd to tell

<sup>13</sup> Imperatives conveying unexpected actions are seen in other Slavic languages as well as languages from other families such as Tatar (Aikhenvald 2010).

someone what this person did himself' (p. 139). The same explanation can be applied to the expressive vocabulary under discussion as well.

### **3.5 Summary of this chapter**

Main findings of this chapter are summarized as follows. First, expressive words can be used both as predicates and as non-predicates, while quotative construction is rarely used. In terms of semantics, expressive words can be used to convey unexpected or instantaneous events. Expressive words can appear both at the right periphery and at the left periphery of an utterance in their non-predicative usage. Cross-linguistically, the left periphery is not a common position for ideophones, but in Russian, there exists a language-specific construction in which an expressive word depicts an event, followed by descriptions of its result. In predicative usage, second person subjects are rare. This feature, along with the incompatibility with negation, is shared by narrative use of the imperative. Crucially, we have seen that these characteristics are observed regardless of whether the word originates from sound imitation or from a prosaic verb. Thus, we could conclude that onomatopoeic and verbal interjections show similar syntactic and semantic properties in terms of their production.

There are at least two things awaiting further investigations. The first point concerns expressive words placed at the left periphery. Although I gave my proposal based on the cooccurrence with words expressing temporal sequence, another explanation might be possible. Kanerva (2023) shows that expressive vocabulary could work as an attention signal as illustrated in (21), which suggests potential overlap in function between expressive words and other 'interactives' in Russian. If this is true, it is natural to think that expressive words could be placed at the left periphery of an utterance. Second, there has been a growing interest in typological literature toward 'mirative.' This is considered as a category responsible for expressing meanings such as unexpected information and surprise (Aikhenvald 2012), and it might be possible to provide a more comprehensive analysis of the expressive vocabulary and the narrative imperative under the concept of mirativity. I will leave these issues for future research.

## 4. Iconicity perception of expressive vocabulary in Russian

In this chapter, I will investigate how native speakers of Russian perceive the ‘iconicity’ of expressive words and their fully inflected counterparts, and I will examine whether we could attest similarities or differences in vocabulary with different origins. As backgrounds, I will introduce how ‘iconicity’ has been discussed in linguistics and cognitive sciences, and I will propose my research hypotheses. Then I will present the method of this study (4.2) and an overview of the results (4.3), followed by statistical analyses for each hypothesis (4.4), a theoretical point of view (4.5) and the summary (4.6).

### 4.1 Backgrounds and research hypotheses

Iconicity, defined as “perceived resemblance between form and meaning” (Dingemanse 2019, p. 18) is what follows from the depictive nature of ideophones. But the role of iconicity, especially in spoken languages, has been underestimated until recently. Since Saussure, it has been assumed that there is no motivation between linguistic signs and what they represent. For example, *inu* in Japanese and *dog* in English represent the same entity, but each form does not have any inherent relations with their reference. Rather, the relations are arbitrary.

However, there is growing evidence showing that iconicity is pervasive and attributed to lexical items with varying degrees both in spoken languages and in signed languages (Dingemanse et al. 2020). Perry et al. (2015) surveyed iconicity ratings of around 600 words in English and Spanish, by asking participants to rate the degrees to which given words sound like what they mean. They revealed that onomatopoeic words were rated highest in iconicity, and that adjectives were perceived as more iconic than nouns and function words. Furthermore, words rated higher in iconicity are likely to be acquired earlier by children. This is in parallel with the discoveries by Vinson et al. (2008), which collected 300 signs in British Sign Language. These findings were replicated and expanded in subsequent studies on a larger scale (Winter & Perlman 2021).

A growing number of studies suggest that the perception of iconicity could be influenced by individual experience with language. In the experiments asking native speakers of Japanese and English to rate iconicity of Japanese ideophones and their English equivalents, Iida and Akita (2024) revealed that participants rated their native language as more iconic. Moreover, iconicity ratings were correlated to the ratings of familiarity with each lexical item.

It is important to note that iconicity is not monolithic. Akita and Imai (2022) argue that at least two types of iconicity exist: **primary iconicity** and **emergent iconicity**. The former involves direct imitation of a sound in the real world. It has a bodily basis and thus it is accessible in different languages. For example, a cat’s cry is often represented with a nasal consonant, like *meow* (English), *nyaa* (Japanese) and *yaong* (Korean). Conversely, the latter does not have a clear phonetic basis and thus it is more language-specific. For instance, slipping movement could be represented in various ways, such as *turun* (Japanese) and *shelele* (Zulu; Msimang & Poulos, p. 246).

Within emergent iconicity, there exists iconicity that cannot be reduced to sound symbolism of particular segments. Dingemans (2011) refers to such iconicity as **diagrammatic iconicity**, where “a relation between forms bears a resemblance to a relation between meanings” (p. 47). In Siwu, ideophones with reduplications represent iterated events, like *sàsàsàsàsà* ‘pulsatile release of urine’ and *kporokporo* ‘drizzling rain.’ On the other hand, monosyllabic ideophones represent unitary events, like *dzâ* ‘sudden appearance’ and *pɔ* ‘frog hop.’ In these examples, word structure is suggestive of spatio-temporal structure of the event. Iconicity of this type is expected to be weaker than primary iconicity, since the form-meaning mappings are not in a direct fashion.<sup>14</sup>

Both primary and emergent iconicity are involved in expressive vocabulary of the Russian language. While onomatopoeic interjections work as direct imitation of sounds, verbal interjections involve diagrammatic iconicity: based on the language-specific pattern (i.e. reduced morphology), they could “serve as immediate, unmediated representations of individual events in real time” (Nikitina 2012, p. 179). Moreover, they could have sound symbolism effects which are not clearly observed in their fully inflected counterparts.

Here we could make the following three predictions: i) Expressive forms with onomatopoeic origins are expected to be rated higher in iconicity compared to those with non-onomatopoeic origins, because the former involves primary iconicity, while the latter involves emergent iconicity. ii) Expressive forms are expected to be rated higher in iconicity compared to their fully inflected counterparts, because the former involves diagrammatic iconicity, while the latter not. iii) Expressive forms rated high in familiarity are expected to be rated high in iconicity as well, in line with Iida and Akita (2024). This chapter aims to test these predictions by iconicity rating data collected from native speakers of Russian.

## 4.2 Method

### 4.2.1 Participants

A total of 40 native speakers of Russian participated in this study. Except for participants from Russia, Slovakia and Japan, they were recruited via Prolific and they received 3 euro for their participation. As discussed in 4.2.4, the first 20 participants (13 females, 7 males; *M* Age = 34.2; age range = 22-52 years old) were assigned into Group A, and the rest 20 participants (12 females, 7 males, 1 preferred not to answer their gender; *M* Age = 38.5; age range = 22-57 years old) were assigned into Group B. Demographic information of the participants is available in Appendix 1.

In this experiment, each lexical item was rated by 20 people. This is in line with the methodology suggested by Motamedi et al. (2019), which shows that we should collect at least 10 iconicity ratings for each word, because otherwise the ratings would be unstable.

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<sup>14</sup> Klammer (2001) also presents examples of diagrammatic iconicity from Austronesian and other language families. Her data indicate that marked forms tend to represent marked meanings.

#### 4.2.2 Stimuli

The stimuli for this study are listed in Table 7 and 8. With the help of my consultants, I created a minimal-pair of the sentences containing an expressive word and its fully inflected counterpart for each of the 14 items covered in Chapter 3. In order to prevent participants from being aware of the distinctions being studied, I also prepared 14 dummy sentences.<sup>15</sup> The list of dummy stimuli used for this study is available in Appendix 2.

Note that this study deviates from previous research on iconicity ratings in that I presented sentences containing target items, rather than target items themselves. This decision was made to allow for direct comparison of expressive forms and their fully inflected counterparts. Based on the fact that third person subjects are most commonly used with expressive forms (See Table 6 in Chapter 3), I used *on* (third person singular masculine) as the subject in every stimulus sentence.

Table 7. List of stimuli used for onomatopoeic interjections

<b>Expressive form</b>	<b>Fully inflected counterpart</b>	<b>Meaning</b>
<i>On brjak na spinu.</i>	<i>On brjaknulsja na spinu.</i>	‘He banged on his back.’
<i>On bux v jamku.</i>	<i>On buxnulsja v jamku.</i>	‘He banged into the hole.’
<i>On xlop v ladoši.</i>	<i>On xlopnul v ladoši.</i>	‘He clapped his hands.’
<i>On bultyx v vodu.</i>	<i>On bultyxnulsja v vodu.</i>	‘He splashed into the water.’
<i>On pljux v lužu.</i>	<i>On pljuxnulsja v lužu.</i>	‘He splashed into a paddle.’
<i>On švyr ’v menja kamen’.</i>	<i>On švyrnul v menja kamen’.</i>	‘He hurled a stone at me.’
<i>On ščelk menja po nosu.</i>	<i>On ščelknul menja po nosu.</i>	‘He flicked me on the nose.’

Table 8. List of stimuli used for verbal interjections

<b>Expressive form</b>	<b>Fully inflected counterpart</b>	<b>Meaning</b>
<i>On nyrk v norku.</i>	<i>On nyrnul v norku.</i>	‘He dived into the hole’
<i>On pryg v vodu.</i>	<i>On prygnul v vodu.</i>	‘He jumped into the water.’
<i>On jurk v ščel’.</i>	<i>On jurknul v ščel’.</i>	‘He darted into the crack.’
<i>On šmyg za dver’</i>	<i>On šmygnul za dver’</i>	‘He slipped out the door.’
<i>On dryg nogoj.</i>	<i>On drygnul nogoj.</i>	‘He jerked his leg.’
<i>On xvat’ menja za škirku.</i>	<i>On sxvatil menja za škirku.</i>	‘He grabbed me by the scruff.’
<i>On tyk menja v život.</i>	<i>On tyknul menja v život.</i>	‘He poked me in the stomach.’

<sup>15</sup> In experimental syntax, it is recommended to have fillers in experiments in a ratio of at least 1:1 between filler and experimental items (Goodall 2021). My experiment follows this convention at least, though there seems to be no consensus as to the required number of filler items in the field related to this thesis.

In the experiment, all sentences were presented auditorily, with their predicate (*brjak*, *brjahnulsja* etc.) visually provided on the participant’s screen. The audio recordings featured a female native speaker of Russian. Participants were allowed to play each target sentence embedded on the website as many times as they wanted.

### 4.2.3 Instructions

After filling in informed consent and demographic information (age, place of residence, gender and other native languages), participants were engaged in two tasks in the following order. In Task 1 (familiarity), participants listened to sentences listed on Table 7 and 8 as well as dummy stimuli. For each sentence, they were asked how often they used, heard or saw the words presented on the screen, on a 10-point scale, from 1 (“not familiar at all”) to 10 (“very familiar”). For instance, after listening to the sentence *On brjak na spinu*, they rated their familiarity with the word *brjak*, which was presented on their screen. In Task 2 (iconicity), participants again listened to sentences listed on Table 7 and 8 as well as dummy stimuli. For each sentence, they were asked to what extent the words sounded like their meaning on a 10-point scale, from 1 (“does not sound like the meaning at all”) to 10 (“sounds very much like the meaning”).<sup>16</sup>

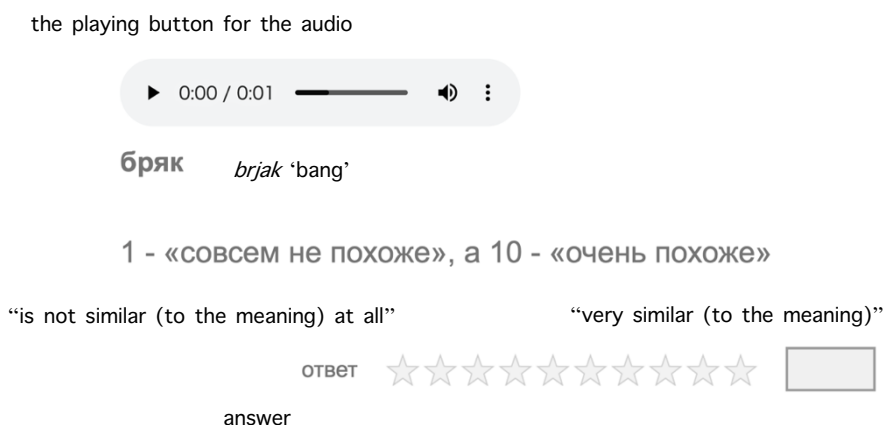


Fig. 2. An example of the trial presented to the participants.

Since participants are not always familiar with the concept of iconicity, it is common practice to provide participants with examples of highly iconic and less iconic words before proceeding to iconicity ratings. For instance, Winter et al. (2024) presented “screech,” “twirl” and “ooze” as examples of the words people have rated high in iconicity, while they presented “porcupine,” “glowing” and “steep” as examples of the words rated moderate in iconicity. In my experiment, before Task 2, I presented *žužžat*’ (in the sentence *On žužžit nad uxom*. ‘He is buzzing over the ear.’) and *garknut*’

<sup>16</sup> Some of the previous studies such as Perry et al. (2015) used a scale from -5 to +5, but the lower end of the scale was not used frequently. Thus, I decided not to use a negative scale.

‘shout’ (in the sentence *On garknul na menja*. ‘He shouted at me.’) as an example of highly iconic and less iconic words, both of which are considered to have imitative origins, according to Fasmer (1986-1987). The English translation of the instructions given to the participants is available in Appendix 3.

#### 4.2.4 Procedure

The experiment was carried out online in a Qualtrics environment. The data were collected between December 20 and 28, 2025. Participants were divided into two groups: Group A was presented expressive forms on Table 7 and fully inflected counterparts on Table 8 in both tasks, while Group B was presented fully inflected forms on Table 7 and expressive forms on Table 8 in both tasks. In addition, all participants were presented 14 dummy sentences listed on Appendix 2. Within each task, the order of presenting sentences was randomized.

#### 4.3 Overview of the results and descriptive statistics

All statistical analyses in this chapter were conducted using R version 4.5.2 (R Core Team 2025). The following three tables provide mean values and standard deviations of iconicity/familiarity ratings. Comparing the iconicity ratings of onomatopoeic and verbal interjections in Table 9, there seems to be no significant difference between the two categories. This will be tested in 4.4.1. As for verbal interjections, iconicity ratings of fully inflected forms in Table 10 are clearly lower than those of expressive forms in Table 9, which will be tested in 4.4.2. Looking at Table 11, one may notice larger standard deviations in familiarity ratings of onomatopoeic items than those of verbal interjections. It is also notable that the word *švyr* ‘hurl’ ranks lowest both in familiarity (Table 11) and in iconicity (Table 9).<sup>17</sup> The relation between familiarity and iconicity will be examined in 4.4.3.

Table 9. Iconicity ratings for expressive forms

##### Onomatopoeic interjections (rated by Group A)

Word	Mean (SD)
<i>pljux</i> ‘splash’	8.35 (1.81)
<i>bulyx</i> ‘splash’	8.30 (1.72)
<i>bux</i> ‘bang’	8.15 (1.93)
<i>xlop</i> ‘clap’	7.95 (2.35)
<i>ščělk</i> ‘flick’	7.55 (1.88)
<i>brjak</i> ‘bang’	6.70 (2.47)
<i>švyr</i> ‘hurl’	5.25 (2.40)

##### Verbal interjections (rated by Group B)

Word	Mean (SD)
<i>jurk</i> ‘whisk’	8.20 (1.70)
<i>tyk</i> ‘poke’	7.85 (2.08)
<i>nyrk</i> ‘dive’	7.80 (1.96)
<i>šmyg</i> ‘dart’	7.75 (2.10)
<i>dryg</i> ‘jerk’	7.75 (2.05)
<i>xvat</i> ‘grab’	7.30 (2.11)
<i>pryg</i> ‘jump’	6.60 (2.28)

<sup>17</sup> *švyr* ‘hurl’ had the fewest hits in the corpus search reported in Chapter 3 (See Table 4).

Table 10. Iconicity ratings for fully inflected counterparts

**Onomatopoeic interjections (rated by Group B)**

Word	Mean (SD)
<i>buxnulsja</i> ‘bang’	8.00 (1.75)
<i>ščělknul</i> ‘flicked’	7.90 (1.97)
<i>bulyxnulsja</i> ‘splashed’	7.85 (1.98)
<i>xlopnul</i> ‘clapped’	7.50 (2.12)
<i>pljuxnulsja</i> ‘splashed’	7.10 (2.63)
<i>švyrnul</i> ‘hurled’	6.70 (2.20)
<i>brjaknulsja</i> ‘banged’	6.45 (2.74)

**Verbal interjections (rated by Group A)**

Word	Mean (SD)
<i>šmygnul</i> ‘clapped’	6.25 (2.55)
<i>tyknul</i> ‘poked’	5.65 (2.50)
<i>jurknul</i> ‘darted’	5.60 (2.54)
<i>dryg</i> ‘jerked’	5.10 (2.22)
<i>nyrnul</i> ‘dived’	3.90 (2.43)
<i>sxvatil</i> ‘grabbed’	3.40 (2.74)
<i>prygnul</i> ‘jumped’	3.05 (2.37)

Table 11. Familiarity ratings for expressive forms<sup>18</sup>**Onomatopoeic interjections (rated by Group A)**

Word	Mean (SD)
<i>bulyx</i> ‘splash’	6.65 (3.15)
<i>xlop</i> ‘clap’	6.55 (3.07)
<i>ščělk</i> ‘flick’	6.45 (3.00)
<i>bux</i> ‘bang’	6.25 (3.01)
<i>pljux</i> ‘splash’	6.25 (2.92)
<i>brjak</i> ‘bang’	6.00 (2.87)
<i>švyr</i> ‘hurl’	3.85 (3.12)

**Verbal interjections (rated by Group B)**

Word	Mean (SD)
<i>pryg</i> ‘jump’	9.40 (1.27)
<i>xvat</i> ‘grab’	8.95 (2.09)
<i>tyk</i> ‘poke’	8.75 (1.65)
<i>šmyg</i> ‘clap’	8.70 (2.41)
<i>dryg</i> ‘jerk’	8.25 (2.17)
<i>jurk</i> ‘dart’	8.20 (2.46)
<i>nyrk</i> ‘dive’	6.60 (3.27)

#### 4.4 Testing hypotheses

Below I will test the three hypotheses mentioned in 4.1, using cumulative link mixed models constructed by the ordinal package in R (Christensen 2025). The cumulative link mixed model is optimized for ordinal response data (e.g. rating scale from 1 to 10), where the difference between adjacent rating points (e.g. between 1 and 2 vs. between 5 and 6) might not be equal. Also, the model can include random effects, such as individual differences among participants and target items.

In the following three tests, distinctions of interest in this study (i.e. onomatopoeic vs. verbal interjections, expressive vs. fully inflected forms, familiarity with each item) are introduced as **fixed effects**. Fixed effects work as predictors of **dependent variables** (i.e. variables affected by the distinctions studied). The three tests have in common that dependent variables are ratings of iconicity. Also, I included participants and words in the models as **random intercepts**, considering baseline

<sup>18</sup> Familiarity ratings for fully inflected counterparts were excluded from statistical analysis for the following reason: 4 participants from Group A and 14 participants from Group B rated all fully inflected items presented as 10, the top end of the scale, which might lead to underestimation of the effect of familiarity on iconicity ratings.

differences in rating behavior across individuals and in rated iconicity across lexical items (e.g. some people tend to give higher ratings overall, and some words tend to receive higher ratings, independently of the experimental condition).

For each test, I will present the following four statistical values: b-value, SE, z-value and p-value. **b-value (fixed-effect coefficient)** indicates the estimated effect of a predictor. In the context of this study, a positive b-value means that the probability of higher ratings is increased by the fixed effect. **SE (standard error)** represents uncertainty of the estimated effect. A smaller SE value means that the estimate is more precise. **z-value** indicates size of the estimated effect compared to its uncertainty. A large absolute z-value suggests that the effect is consistently observed across participants and items, which is not attributable to random variation. Lastly, **p-value** represents how likely the observed effect is to occur under the null hypothesis. A p-value smaller than a certain level (0.05 or 0.01) means that the observed effect is unlikely to occur solely by chance, which suggests its statistical significance.

#### 4.4.1 Onomatopoeic vs. verbal interjections

Here I will test the first hypothesis, “Expressive forms with onomatopoeic origins are expected to be rated higher in iconicity compared to those with non-onomatopoeic origins.” A cumulative link mixed model is used to predict to what extent the iconicity ratings of onomatopoeic interjections are likely to be higher than those of verbal interjections. Relevant factors are summarized as follows.

Fixed effect:	Origin of expressive words (onomatopoeic vs. verbal)
Dependent variable:	Ratings of iconicity
Random intercepts:	Participants, Words

Contrary to the hypothesis, the model showed that onomatopoeic interjections were rated slightly lower than verbal interjections, but not on a statistically significant level ( $b = -0.1892$ ,  $SE = 0.7797$ ,  $z = -0.243$ ,  $p = 0.808$ ). We could conclude that there is no significant difference in the perceived iconicity of expressive words with different origins.

#### 4.4.2 Expressive vs. fully inflected forms

Here I will test the second hypothesis, “Expressive forms are expected to be rated higher in iconicity compared to their fully inflected counterparts.” A cumulative link mixed model is used to predict to what extent the iconicity ratings of expressive forms are likely to be higher than those of their fully inflected counterparts, in each of the two categories (i.e. onomatopoeic and verbal interjections). Relevant factors are summarized as follows.

Fixed effect:	Word form (expressive vs. fully inflected)
Dependent variable:	Ratings of iconicity
Random intercepts:	Participants, Words

The models show different results for onomatopoeic and verbal interjections. On the one hand, the effect of different word forms is not statistically reliable in onomatopoeic items ( $b = 0.083$ ,  $SE = 0.587$ ,  $z = 0.141$ ,  $p = 0.8877$ ). On the other hand, expressive words derived from prosaic words receive significantly higher ratings of iconicity compared to their fully inflected counterparts ( $b = 2.947$ ,  $SE = 0.562$ ,  $z = 5.245$ ,  $p < .001$ ). Thus, for onomatopoeic items, whether they are in their original forms or fully inflected items is not a relevant factor for iconicity, whereas for verbal interjections, reduced morphology has a strong impact on their iconic interpretation.

#### 4.4.3 Familiarity and iconicity

Here I will test the third hypothesis, “Expressive forms rated high in familiarity are expected to be rated high in iconicity as well.” A cumulative link mixed model is used to predict to what extent iconicity ratings of expressive forms are likely to be higher under the influence of familiarity, in each of the two categories. Relevant factors are summarized as follows.

Fixed effect:	Ratings of familiarity
Dependent variable:	Ratings of iconicity
Random intercepts:	Participants, Words

The models show different results for onomatopoeic and verbal interjections. For the former, the effect of familiarity turns out to be statistically significant ( $b = 1.285$ ,  $SE = 0.3122$ ,  $z = 4.128$ ,  $p < .001$ ). For the latter, familiarity has some positive impact on iconicity ratings as well, but not on a significant level ( $b = 0.4146$ ,  $SE = 0.2531$ ,  $z = 1.638$ ,  $p = 0.101$ ).

#### 4.5 A view from Relational Morphology

The quantitative data show that there is no significant difference in the perceived iconicity of onomatopoeic and verbal interjections. But motivation of iconicity turns out to be different. The iconicity of onomatopoeic items is driven by individual experience with language, in the same ways as Japanese and English ideophones surveyed by Iida and Akita (2024): through the process of the association being established between a particular word and a particular sound/movement, the item is perceived as iconic. This primary iconicity is preserved in their fully inflected counterparts as well. On the other hand, the effect of diagrammatic iconicity was verified for verbal interjections. The

relations between base forms and expressive forms motivate iconicity, and this effect far exceeds that of familiarity with individual items.

The situation in verbal interjections can be theoretically modeled with the help of Relational Morphology, proposed by Jackendoff and Audring (2020). This theory holds that linguistic knowledge is organized in the form of schema, emerging from observed patterns in the lexicon. Schemas consist of two different kinds of relational links. The first one connects words that share part of their structure, such as  $[_N [_V \textit{read}] \textit{-er}]$  and  $[_V \textit{read}]$ . This paradigmatic link is called ‘sister relation.’ The second one facilitates instantiation or generalization of the structure, such as  $[_N [_V] \textit{-er}]$  and  $[_N [_V \textit{read}] \textit{-er}]$ . This hierarchical link is called ‘mother-daughter relation.’ These two relations contribute to marking certain parts of the structure in daughter words as predictable, thus making them less arbitrary.

Turning back to verbal interjections in Russian, it can be assumed that a fully inflected form and its expressive version constitute a sister relation. Once a number of such paradigmatic pairs are stored in a speaker’s lexicon, the abstract pattern  $V - V'$  [-tense][-agreement] is recognized. This schema motivates individual pairs by forming mother-daughter relations, as in Fig. 3. I argue that these two relations are the sources of their iconic interpretation.

One may wonder about productivity of the schema, since verbal interjections can be formed from only a handful of verbs. But this is not a problem. In Relational Morphology, schema is considered to be functional regardless of its productivity, since every schema starts out from a limited number of instances.

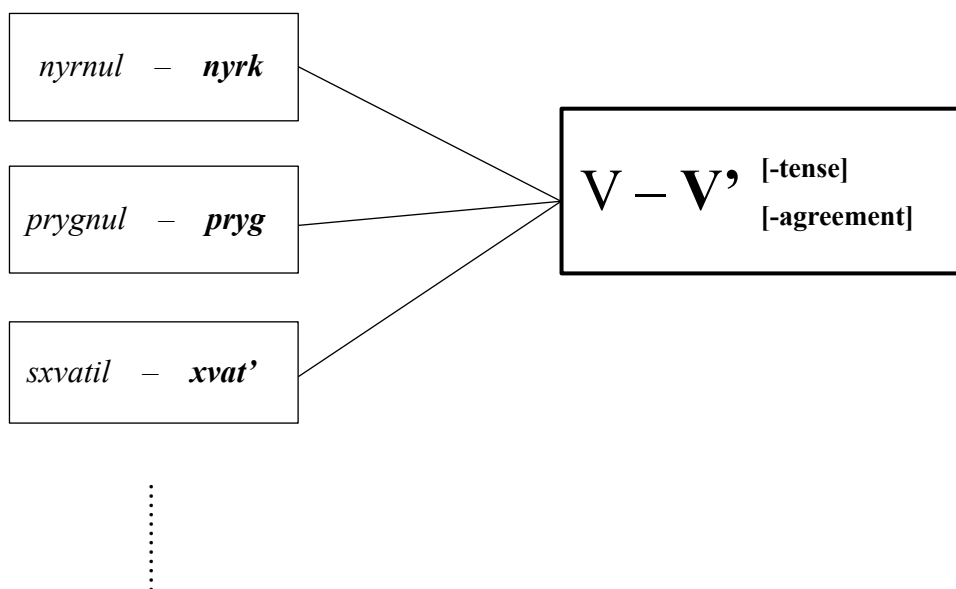


Fig. 3. Schema of verbal interjections.

#### 4.6 Summary of this chapter

This chapter has revealed that in Russian, expressive words derived from prosaic verbs are perceived as iconic almost at the same level as those with onomatopoeic origins. In onomatopoeic interjections, familiarity with individual items is a relevant factor in their iconic interpretation, but in verbal interjections, the structural relations between base verbs and expressive versions have a much more significant effect. Diagrammatic iconicity, where “a relation between forms bears a resemblance to a relation between meanings” (Dingemanse 2011, p. 47), is generally assumed to be weaker than iconicity involving direct imitation of sounds, but the experimental result in Russian adds an insight that both could come at equal level.

A final remark is needed regarding the methodology: one should note that sentences used for each target item might have some impact on ratings of individual words. One participant reported to me that for him, the word *ščěłknul* ‘flicked’ used with an animate actor (*On ščěłknul menja po nosu* ‘He flicked me on the nose’ in the stimuli) sounds less familiar than the same word used with an inanimate actor (e.g. *Ključ ščěłknul v zamočnoj skvažne* ‘The key clicked in the keyhole’). My study is concerned with relations between different factors (i.e. onomatopoeic and verbal interjections, expressive and fully inflected forms, familiarity and iconicity), rather than ratings of individual items. Thus, the impact of sentences on individual ratings does not immediately undermine the validity of my experiment, but for future research, it might be interesting to investigate to what extent the perceived iconicity of a particular item is context-dependent.

## 5. Conclusion

This thesis studied expressive words in Russian used for depicting specific sounds or movements. These expressive words are divided into two types: those derived from sound imitation (onomatopoeic interjections) and those derived from prosaic words (verbal interjections). This thesis explored whether these two types show similar properties in terms of their usage and iconic interpretation.

Based on the literature review, Chapter 2 has pointed out some morphosyntactic properties of the expressive words, such as lack of tense and agreement markings, and incompatibility with negation. These features are shared by ‘ideophones,’ which is a cross-linguistic category defined as “a member of an open lexical class of marked words that depict sensory imagery” (Dingemanse 2019, p. 16).

Chapter 3 dealt with the production of expressive words. The corpus survey has revealed that expressive words have both non-predicative and predicative usage regardless of their origin, while quotative construction is uncommon. In non-predicative usage, the items can be placed at either the right or left end of an utterance. Expressive words appearing on the left periphery depict an unexpected or instantaneous event, followed by descriptions of its result. This yields a difference from the cross-linguistic tendency for ideophones to be placed on the right end. On the other hand, expressive words in Russian used as predicates rarely cooccur with second person subjects, which is shared by narrative use of the imperative, in addition to other morphosyntactic and semantics properties.

Chapter 4 dealt with perception of iconicity, defined as “perceived resemblance between form and meaning” (Dingemanse 2019, p. 18). The experimental results have revealed that onomatopoeic and verbal interjections are perceived as iconic almost at the equal level. The iconicity of onomatopoeic interjections has its basis on the association of a specific word with a specific sound or movement, thus familiarity with individual items plays a key role. On the other hand, the iconicity of verbal interjections is an emergent property of the structural relations between base verbs and expressive forms lacking tense and agreement markings.

Based on these discussions, I conclude that onomatopoeic and verbal interjections are used and perceived as iconic in a similar fashion, but they are motivated by different sources. This thesis has not only deepened our understandings of expressive vocabulary in Russian, but also contributed to the typology of ideophones, by providing insights into possible positions of ideophones in an utterance (Chapter 3) and relations between primary and emergent iconicity (Chapter 4).

A major limitation of this thesis is that I handled only 14 items in my corpus survey and experiment. This is mainly due to the fact that there is only a limited number of expressive words actively used in Contemporary Russian, which has made it difficult to carry out a detailed analysis based on semantic and morphophonological properties of individual words. The methods adopted in this thesis are applicable to research in other languages: in particular, it might be interesting to compare the perceived iconicity of base verbs and expressive forms, in languages where expressive forms are productively derived from prosaic verbs.

A final remark is needed regarding the terminology. In this thesis, I have been sticking to the traditional terms ‘onomatopoeic interjections’ and ‘verbal interjections,’ since there is no consensus as to whether we should treat expressive words in Russian as ‘ideophones,’ despite a number of shared properties. One issue is that it is hard to specify what is depicted by verbal interjections, beyond unexpected or instantaneous events. Unlike onomatopoeic items, which are primarily associated with auditory information, verbal interjections cannot be associated with a specific sensation such as tactile or olfactory sense, thus it is questionable whether they depict what Dingemanse calls “sensory imagery.” On the other hand, as I have demonstrated in this thesis, one can benefit a lot from the typology of ideophones to reveal language-specific features. Thus, studies on expressive vocabulary in Russian should still take into account connections to ideophones. Furthermore, one should note that boundaries between suggested categories are not always clear-cut. Functional overlap with other categories and its consequences are worth investigating in future research.

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## Appendix

### 1. Demographic information on the participants of the experiment (Chapter 4)

#### Group A

Participant ID	Gender	Age	Country of residence	Other L1
A01	Female	29	Germany	
A02	Female	52	Russia	
A03	Male	52	Slovakia	
A04	Male	24	The Netherlands	
A05	Female	29	The Netherlands	
A06	Female	23	The Netherlands	
A07	Male	45	The United Kingdom	
A08	Male	32	Russia	
A09	Female	25	Japan	
A10	Female	43	The Netherlands	
A11	Female	38	Sweden	
A12	Female	38	The United Kingdom	
A13	Female	22	Germany	
A14	Male	29	The United Kingdom	Greek
A15	Male	32	Spain	Ukrainian
A16	Female	24	Italy	
A17	Female	24	Latvia	
A18	Female	40	Greece	Ukrainian
A19	Male	51	The United States	Ukrainian
A20	Female	32	Russia	

#### Group B

Participant ID	Gender	Age	Country of residence	Other L1
B01	Male	52	Russia	
B02	Female	26	Germany	
B03	NA	33	Israel	
B04	Female	50	The United Kingdom	
B05	Female	44	The United Kingdom	
B06	Female	23	Israel	Hebrew
B07	Female	45	Armenia	

B08	Male	48	Russia	
B09	Male	22	Russia	
B10	Female	23	Russia	
B11	Female	57	Latvia	Ukrainian, Latvian
B12	Male	31	Ireland	
B13	Female	31	Estonia	
B14	Male	41	Latvia	
B15	Female	35	Czech Republic	
B16	Female	39	New Zealand	Ukrainian
B17	Female	36	The United Kingdom	
B18	Male	55	Latvia	
B19	Female	42	Spain	
B20	Male	36	France	

## 2. List of dummy stimuli for the experiment (Chapter 4)

Sentence	Meaning
<i>On vkrutil lampočku v ljustru.</i>	'He screwed the light bulb into the chandelier.'
<i>On zaper dver' na ključ.</i>	'He locked the door with a key.'
<i>On navjazal lesku na udočku.</i>	'He tied the fishing line to the rod.'
<i>On lišil menja nasledstva.</i>	'He deprived me of my inheritance.'
<i>On sel v kreslo.</i>	'He sat down on the chair.'
<i>On gnalsja za mjačom.</i>	'He chased the ball.'
<i>On potjanul menja za uxo.</i>	'He pulled my ear.'
<i>On posmotrel v zerkalo.</i>	'He looked in the mirror.'
<i>On oblilsja vodoj iz vedra.</i>	'He poured water over himself from a bucket.'
<i>On sverknul glazami.</i>	'He flashed his eyes.'
<i>On nakrylsja odejalom s golovoj.</i>	'He covered himself with a blanket, including his head.'
<i>On skatal šariki iz gliny.</i>	'He rolled balls out of clay.'
<i>On pobežal k materi.</i>	'He ran to his mother.'
<i>On karaulit dvorec.</i>	'He guards the palace.'

### 3. English translation of the instructions given to the participants of the experiment (Chapter 4)

#### Page 1 (Informed consent)

Thank you for participating in my research!

My name is Keigo Kamakura. I am from Japan. I study Slavic linguistics, and I am currently preparing my master's thesis, which will be presented at Leiden University in the Netherlands.

This experiment is designed to understand relations between forms and meanings in language. The experiment consists of two parts. You will be asked to listen to sentences in Russian and rate the word used in these sentences several times on a scale from 1 to 10. Most people complete the experiment in about 10-15 minutes.

You can use a computer, tablet, or smartphone. Please respond alone, in a quiet environment, without talking to others.

**Put on headphones or earbuds.** Adjust the volume before starting the experiment and do not change it during the experiment.

The experiment is intended for native speakers of Russian. If Russian is not your native language, please do not participate in the experiment. You can participate in the experiment if you have a native language other than Russian.

Your participation in the study is completely voluntary. You can be sure that your answers will be treated with complete confidentiality. The data will be used only for the purposes of this study and will be processed anonymously.

If you have any questions or comments about the study, please contact the researcher at (email address).

By clicking the “Agree” button below, you confirm that:

- You have read the above information.
- You voluntarily agree to participate.
- You understand that you can withdraw from the study at any time and for any reason, without explanation and without any negative consequences.

If you do not agree, click “I do not want to participate.”

[Options]

Agree

I do not want to participate

**Page 2 (Demographic information)**

How old are you?

[Answer]

Country of residence

[Answer]

Your gender

[Options]

Male

Female

Others

I prefer not to answer

If applicable to you:

Please list all your native languages, apart from Russian.

[Answer]

**Page 3 (Volume check)**

Before proceeding to the first part, listen to the sample audio recording and check the volume.

(sample audio 1)

“This is a sample audio recording for our experiment. Please check the volume.”

You may listen to the audio recording as many times as you wish, but please do not change the volume while completing this survey.

Page 4 (Task 1 Introduction)

**Part One**

You will be presented 28 sentences and asked to rate how familiar you are with a word used in the sentence on a scale of 1 to 10.

**“Familiarity” refers to how often you use, hear, or see the word. 1 means “not familiar at all” and 10 means “very familiar.”**

There are no right or wrong answers, so please do not think too long. Answer based on your intuition.

**Before answering, be sure to listen to the audio recording for each word.**

**Please try to use the entire scale from 1 to 10 for your ratings.**

Page 5 (Task 1 Experiment)

[Task 1 actual experiment]

Page 6 (Task 2 Introduction)

**Part Two**

You will be presented 28 sentences and asked to rate how much the sound of a word in the sentence is similar to its meaning on a scale of 1 to 10.

**1 means “not similar at all” and 10 means “very similar.”**

For example, listen to and compare the three sample audio recordings on this screen.

(sample audio 2) “He is buzzing over the ear.”

(sample audio 3) “He yelled at me.”

(sample audio 4) “He waved his arms.”

Comparing the words *buzzing* (*žužžit*) and *yelled* (*garknul*), it can be said that the word *buzzing* sounds more like what it means than the word *yelled*.

Comparing the words *yelled* (*garknul*) and *waved* (*maxal*), it can be said that the word *yelled* sounds more like what it means than the word *waved*.

Thus, *buzzing* is rated highest, and *yelled* is in second place among these three words.

There are no right or wrong answers, so please do not think too long. Answer based on your intuition.

**Before answering, be sure to listen to the audio recording for each word.**

**Please try to use the entire scale from 1 to 10 for your ratings.**

Page 7 (Task 2 Experiment)

[Task 2 actual experiment]

Page 8 (End message)

The survey is finished.

Thank you very much for your participation!

If you have any questions or comments, please contact the researcher at (email address).