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EXPLORING ASPECTUAL OPPOSITION IN RUSSIAN: A CORPUS-BASED ANALYSIS OF *VIDET'* VS *UVIDET'* AND *SLYŠAT'* VS *USLYŠAT'*

Abstract: *This paper explores the phenomenon of aspectual opposition in Russian through a corpus-based approach. Two pairs of verbs are examined: videt'.IPF-uvidet'.PF [to see] and slyšat'.IPF-uslyšat'.PF [to hear]. Data from the Russian-Italian Parallel corpus within the Russian National Corpus are statistically analyzed across four factors: context (narrative vs dialogic), object position, contiguous verb, and meaning. The aim is to identify the contexts in which the perfective forms are preferred over the imperfective counterparts. Since these verbs are atelic, the imperfective forms constitute the most natural way to express past actions, while the perfective adds an ingressive value. The analysis reveals that for both pairs, the presence of a contiguous verb and its aspect are the most significant factors influencing aspectual choice. However, for slyšat'.IPF-uslyšat'.PF, other factors also play a role, especially verb meaning. The paper further addresses the issue of determining whether these cases exemplify aspectual opposition or competition. While aspectual competition typically occurs with telic verbs where perfective and imperfective forms share identical meanings, the verb pairs under examination are argued to occupy a midpoint on a continuum between opposition and competition.*

Keywords: *corpus linguistics, Russian verbal aspect, aspectual opposition, aspectual competition, Aktionsart, videt'.IPF-uvidet'.PF, slyšat'.IPF-uslyšat'.*

1. Introduction²

This paper aims at contributing to research on Russian verbal aspect, exploring the phenomenon of aspectual opposition through a corpus-based approach.

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It is widely acknowledged that Slavic verbal aspect has consistently been one of the most studied phenomena in linguistics. However, “(d)espite the obvious advantages of using corpora in semantic studies” (Grønn, 2004:p.12), few of them employ quantitative or corpus methods in research on aspectual opposition or competition (see Section 1.2 for a distinction between the two terms): “(t)his is quite surprising considering the important role corpora could play for instance when comparing the frequency or preference for IPF vs. PF in specific syntactic environments” (Grønn, 2004:p.12).

Since Grønn’s statement, a slight improvement has taken place; over the past 20 years, some corpus-based studies on aspectual opposition have been published, enriching the literature with some interesting insights. Nonetheless, they still remain the exception³. Among these, several cognitive linguistic studies stand out in particular⁴, such as (Reynolds, 2016), in which corpus data demonstrated that, contrary to what is typically presented in descriptive grammars, adverbial or verbal clues strongly indicating a preference for one aspect are quite rare in language use, appearing in association with only 2% of the verbs analyzed; or (Janda & Reynolds, 2019; Janda et al., 2019, Bernasconi, 2022), focused on aspectual opposition or competition (see Section 1.2 for a definition of these two phenomena).

The present study, in particular, turns to corpus data to investigate the use of aspect in the past tense, and takes as a starting point some studies focused on aspectual competition, a phenomenon arising with telic events, and more precisely, when the imperfective takes on a factual-resultative meaning (Bernasconi & Noseda, 2021; Noseda, 2022, Maiko & Noseda, in press). In this work, a further step is taken, analyzing two pairs of *atelic* verbs which, according to the theory presented here (see Section 1.2), should not be considered as ‘competing’: *videt’.IPF-uvidet’.PF* [to see] and *slyšat’.IPF-uslyšat’.PF* [to hear]. Assuming that for atelic verbs the most prototypical form to express past actions is the imperfective (IPF) (Gebert, 1991, 2014a, 2014b), the aim of this corpus analysis is to determine in which contexts the perfective (PF) forms – *uvidet’* and *uslyšat’* – are preferred.

The paper is structured as follows: Sections 1.2–1.4 provide information on the theoretical framework underlying the study and state the research questions.

³ As an anonymous reviewer rightly pointed out, most scholars today use corpora for their research, and aspectology is no exception. However, these studies are primarily ‘corpus-informed’ rather than ‘corpus-based’, employing corpora merely as a database for collecting examples (Kopotev, 2021; Biagini et al., 2024).

⁴ This is not surprising, considering that “Cognitive linguistics is a usage-based model of language structure” and “has always been a ‘data-friendly’ theory” (Janda, 2019:p.10).

Section 2 describes the methodology adopted to address them. The results of the corpus analysis are presented in Section 3 and discussed in Section 4.

1.2 Russian Aspect in the Past Tense: an Overview

This section will describe the theoretical premises necessary to understand the study presented here. First, it is essential to define the difference between *aspectual opposition* and *aspectual competition*. The term *aspectual opposition* is used to refer to cases where the PF and IPF forms exhibit substantial differences in semantic and functional terms (Grønn, 2004:pp. 30–35). This phenomenon can occur in two contexts: first, when the IPF either expresses a habitual action, or conveys a progressive meaning (*užinali* in Example 1), contrasting with the PF, which denotes a single, completed event (*razdalsja*, 1). Secondly, it arises with atelic predicates. The latter case will be elaborated upon later in this Section. Conversely, the term *aspectual competition* will refer to cases where the IPF and PF forms convey the same value (Examples 2 and 3), both designating a single, completed event without semantic variation (though with slight differences at the pragmatic level⁵):

(1) My *užinali*.IPF, *kogda razdalsja*.PF telefonnyj zvonok. (Burločenko, 2019. Russian National Corpus – henceforth RNC)⁶

[We *were having dinner*, when the phone *rang*.]

(2) On emu srazu *kupil*.PF pianino. (RNC)

[He *bought* him a piano right away.]

(3) Èto vy ne u nas *pokupali*.IPF? (RNC)

[*Didn't* you *buy* this from us?]

According to the classification proposed by Padučeva (1996), in example (3) the IPF has a factual-resultative meaning. The factual imperfective actually encompasses several nuances. As outlined in (Padučeva, 1996:pp.33–34) and (Zaliznjak & Šmelev, 2000:p.26) the following types are distinguished:

Nerezul'tativnoe [non-resultative], indicating a single, completed action, whose result was not achieved:

(4) Ja *umoljal*.IPF eë vernut'sja. (Zaliznjak & Šmelev, 2000:p.26)

[I *begged* her to come back (but she did not).]

Nepredel'noe [atelic], where the verb expresses either a state or process that has ended:

⁵ For a detailed discussion on the differences between IPF and PF in competing contexts, please refer to Israeli (1996, 2001); Padučeva (1996); Mehlig (2001); Grønn (2004); Nosedá (2022).

⁶ *Nacional'nyj korpus russkogo jazyka: očerk predystorii* (Sičina, 2005), www.ruscorpora.ru

(5) Ja Vas *ljubil*.IPF. (Zaliznjak & Šmelev, 2000:p.26)

[I loved you.]

Dvunapravlennoe [bidirectional], indicating an action whose result has been neutralized:

(6) Ty segodnja *otkryval*.IPF okno? (Zaliznjak & Šmelev, 2000:p.26)

[Have you opened the window today?] (The window is closed at speech time).

Rezultativnoe [resultative], where, similarly to the PF, the IPF denotes an action that “has reached its limit”⁷ (Padučeva, 1996:p.32), as in:

(7) Ty *ubiral*.IPF kvartiru? (Grønn, 2004:p.78)

[Did you clean the apartment?]

In terms of *opposition* vs. *competition*, only in Example (7) the IPF actually competes with the PF form, as in the other cases, a more evident aspectual distinction can be detected between PF and IPF, which are not interchangeable in those specific contexts; in (4), the PF *umolil* would suggest a positive outcome (she came back), in (5), *poljubil*.PF would mean “I started to love you”, while in (6) the PF form *otkryl* would suggest that the window is still open at speech time.

Following Gebert (1991)⁸, it can be claimed that the aforementioned classification, as well as the distinction between *competition* and the second type of *opposition*, are strongly *Aktionsart*-dependent⁹ (Vendler, 1957). More specifically, aspectual competition affects only telic verbs¹⁰, namely accomplishments and achievements, whose prototypical form in the past tense is the PF. In contrast, the perfective forms of atelic verbs – states and activities – convey an additional value compared to their imperfective counterparts, such as ingressive (or inchoative), cf. *zakričat'* [to start screaming], or perdurative, cf. *prosidet'* [to sit for a while] etc. For this reason, with atelic verbs, the most natural way to express an event¹¹ in the past tense is in fact the imperfective.

⁷ The resultative IPF can be further divided into subcategories: three, according to Padučeva (1996): – ‘existential’, ‘concrete’, and ‘actional’ – or two, according to Grønn (2004), who distinguishes between ‘existential’ (which includes Padučeva’s concrete type) and ‘presuppositional. Although the existential IPF – exemplified in (7) – does not focus on the result, but rather on the occurrence of action itself, its limit is still considered to be reached.

⁸ See also (Grønn, 2004; Padučeva, 1996).

⁹ In this work, the term *Aktionsart* is used as a synonym of lexical aspect. The classification we refer to is that proposed by Vendler (1957), who divided verbal actions in four types: states, activities, accomplishments, achievements.

¹⁰ When they are not used with a bidirectional meaning, as in Example 6.

¹¹ From now on, the word *event* will be used to refer to a single, completed action, as opposed to a durative or processual one.

According to Gebert, examining the relationship between aspect and *Aktionsart*, particularly the distinction between telic and atelic actions (Garey, 1957), offers a comprehensive account of how Russian verbal aspect functions in expressing past events. Furthermore, this relationship makes it possible to determine whether two verbs form a *trivial* aspectual pair, i.e., a pair of verbs whose members differ only in terms of aspect, without any variation in lexical meaning (e.g., *pokupat'*.IPF – *kupit'*.PF [to buy])¹². In particular, it can be argued that this occurs only with telic verbs (Gebert, 1991; 2014a; 2014b).

Nonetheless, sometimes, “individual verbs can deviate strongly from overall patterns” (Eckhoff et al., 2017:p.872); this is the case of the two pairs of verbs examined here, whose temporal-aspectual behavior will be briefly described in the following Section.

1.3 *Videt'* and *Slyšat'*: a Temporal-Aspectual Portrait

Like its English equivalent *to see*, the Russian verb *videt'* belongs to the Vendlerian class of states, despite Vendler himself describing the “task of analyzing the concept of ‘seeing’ from the point of view of temporal structure” as “arduous” (Vendler, 1957:p.154). Indeed, after some reflection, Vendler classified this verb as both a state (atelic) and an achievement (telic), depending on the context in which it occurs.

In this work, we acknowledge that *seeing* often takes on a punctual value, as in Vendler’s example “At the moment I saw him” (Vendler, 1957:p.154). However, we do not believe that it can be qualified as telic. Instead, to offer a proper description of this verb, we prefer to follow Bertinetto’s categorization into five classes: the four Vendlerian classes plus a fifth one, encompassing *punctual* verbs (Bertinetto, 1986). Considering that, according to Bertinetto, such verbs share the property of punctuality with achievements, but do not qualify as telic, in this work, we argue that *see* should belong to this category¹³, as the action of seeing does not have a defined endpoint, and if interrupted, it can still be said to have occurred, which is the case of atelic predicates (Klein, 1969).

When considering the Russian verbal system, which provides two verbal equivalents for the English *to see*, i.e., *videt'*.IPF and *uvidet'*.PF, this classification allows us to categorize both the IPF and PF form as atelic. More specifically,

¹² I point out that this use of the term ‘trivial’ is distinct from its use in relation to pairs like *prichodit'*.IPF–*prijti*.PF [to come], where the IPF form does not convey a progressive meaning (Zaliznjak et al., 2010:p.8).

¹³ Bertinetto, indeed, considers the Italian verb *vedere* [to see], as both stative and punctual (Bertinetto, 1986:p.307).

Padučeva (1996:pp. 95-96) classified *videt'*.IPF and *uvidet'* among the so-called *perfektnye pary* [perfect pairs], in which the PF designates the beginning of a state and the IPF expresses the state itself. In other words, *uvidet'*.PF carries an ingressive value (Zaliznjak & Šmelev, 2000:p.110). Yet, whether the two verbs constitute a trivial aspectual pair remains a source of debate. As described in Section 1.2, Gebert (1991, 2014a, 2014b) argued that only telic verbs form proper aspectual pairs. In contrast, many scholars, prefer to rely on Maslov's criterion, which holds that two aspectual forms belong to a trivial aspectual pair if the IPF can substitute the PF without semantic variation in contexts of historical present and habituality. Following this criterion, *videt'*.IPF and *uvidet'*.PF qualify as an actual aspectual pair (Gorbova, 2011:p.22–23).

The literature demonstrates that the action of *hearing* shares all its temporal properties with that of *seeing*, both in English and Russian (Nosedá, 2024; Padučeva, 1996:pp.95-96; Vendler, 1957:p.152; Zaliznjak & Šmelev, 2000:p.110). Specifically, in Russian, *slyšat'*.IPF-*uslyšat'*.PF is also classified as a *perfect pair*, with the PF form carrying an ingressive meaning. Moreover, the same debate regarding trivial or non-trivial aspectual pairs applies to these two verbs as well.

Another feature shared by these two verb pairs is that the semantic differences between the IPF and PF forms – namely the ingressive value of the latter – are rather challenging to discern. Data from parallel corpora show that *uvidet'*.PF and *uslyšat'*.PF are never translated using phasal periphrases such as *to start to*, *to begin to* (See Section 3). This is not surprising, considering that states are generally incompatible with such periphrasis (Dowty, 1979; Bertinetto, 1986). However, it might be expected that the ingressive value would emerge in some way.

For all these reasons, it could be argued that, when expressing single and completed events, these two couples of verbs can be placed on a continuum between *opposition* and *competition*, where the highest degree of *opposition* is found with atelic verbs that exhibit clear semantic variation – such as *kričat'*.IPF -*zakričat'*.PF – and do not form an aspectual pair, while the highest degree of *competition* is found with pairs of telic verbs, such as *pokupat'*.IPF e *kupit'*.PF, where no semantic variation is observed.

1.4 Research Questions

Considering the points just presented, the following research questions can be formulated:

1. In which contexts are the PF forms *uvidet'* and *uslyšat'* (i.e., the marked forms) preferred over their imperfective and unmarked counterparts (*videt'* and *slyšat'*)?
2. Where do these pairs of verbs¹⁴ fall on the continuum between *opposition* and *competition*?

The methodology adopted to address these questions will be presented in the next Section.

2. Methodology

For the analysis, occurrences of the four verbs under examination were extracted from the Russian-Italian parallel corpus (ru-it PC) within the Russian National Corpus¹⁵. Although the use of a parallel corpus was not strictly necessary for this type of research, it was chosen for two primary reasons. First, it facilitated the identification of contexts in which IPF forms denoted completed events. Indeed, while in Russian both PF and IPF verbs can express this type of actions, in Italian the *Imperfetto* – which most often expresses an imperfective action – cannot¹⁶. This distinction simplified the process of identifying relevant examples, since only those presenting a perfect tense in the Italian translation would be eligible. Secondly, it allowed to look for differences in the Italian translation that could help distinguish the meaning of the two forms.

The initial step involved searching for each imperfective form in the past tense in the Russian subcorpus and extracting all examples in which the IPF denoted completed events. The query had the following form:

Word 1: –ne¹⁷;

¹⁴ When referring to *videt'*.IPF vs *uvidet'*.PF and *slyšat'*.IPF vs *uslyšat'*.PF, the word *pair* is never used in the sense of a proper (or trivial) aspectual pair.

¹⁵ As of March 2025, the ru-it PC contains nearly 5 million tokens (4,930,970) and includes 126 texts, divided as follows: 74 in the Russian-Italian direction and 48 in the Italian-Russian direction. Literary prose is the predominant text genre, with works spanning from the 18th to the 21st century. However, the corpus also includes 12 non-fiction works and several newspaper articles. For a detailed account of the corpus's characteristics and compilation criteria, see (Nosedà, 2018).

¹⁶ The Italian *imperfetto* (IMPERF) is characterized as the tense of indefiniteness (Bertinetto, 1986). For this reason, it can only be used to convey progressive or durative actions without any temporal delimitation. Such delimitation, in contrast, would require the use of a perfect tense, such as *passato prossimo* (PP), cf. Maria *leggeva*.IMPERF [Maria was reading] vs Maria *ha letto*.PP per due ore [Maria read for two hours].

¹⁷ This allowed to avoid negative contexts, which are governed by specific rules in terms of aspectual choice (Padučeva, 2011:pp.215–220).

Word 2: *videt'* & indic [indicative mood] & preat [past tense], distance 1 from Word 1;

As mentioned, the Italian translation served as a support to identify relevant examples. Corpus data evidenced that, when used in the past tense, both *videt'* and *slyšat'* more often occur with this very value: 71 instances out of 129 for *videt'* (55%) and 67 instances out of 103 for *slyšat'* (65%). An equal number of PF forms were subsequently randomly collected. Two datasets were created: one for *videt'-uvidet'*, including 71 sentences for each verb, and another for *slyšat'-uslyšat'* (67 sentences each).

The datasets were manually annotated for multiple factors, namely one dependent variable (Aspect – IPF or PF) and four independent variables:

- a) Context (dialogue – narration)¹⁸.
- b) Object position (pre – post).
- c) Contiguous verb (IPF – PF – no [i.e., no contiguous verb present]).
- d) Meaning.

In what follows a detailed description of these four factors will be provided.

a) *Context*. As Padučeva (1996) and Sičinava (2013) observe, the factual meaning of the IPF characterizes primarily spoken language rather than narration. The processual value, typical of narration, emerges in speech only when accompanied by temporal complements (Padučeva, 1996:pp.170–171). Consequently, any analysis of the role of the factual imperfective in the Russian aspectual system must necessarily account for the distinction between the *rečevoj* [spoken] and *narrativnyj* [narrative] modes. Two previous studies on the factual meaning of the IPF, focusing on telic predicates, have confirmed that spoken language and dialogic conversation in fiction, constitutes the primary context of its realization (Nosedá, 2022, Maiko & Nosedá, 2024). This led to the decision to investigate whether the same principle applies to atelic predicates as well, particularly to those under examination.

b) *Object position*. A preliminary analysis of the datasets revealed that, with the perfective aspect, direct objects tend to appear after the verb, whereas, with the IPF, they more frequently appear before¹⁹. This observation prompted the decision to

¹⁸ This distinction was possible because the it-ru PC is primarily composed of literary prose, as mentioned in footnote 14.

¹⁹ As mentioned in (Nosedá, 2022) regarding aspectual competition, this could be explained by the fact that the IPF is frequently used when the verb (and consequently its result) is out of focus, and this phenomenon could also commonly occur with atelic verbs.

investigate the actual prevalence of this tendency, as well as its statistical significance. Note that for *slyšat*’.IPF-*uslyšat*’.PF indirect complements introduced by the preposition ‘o’ were also considered as objects, as *o bjuro nachodok «Delimobilja»* [Delimobile’s discovery desk] in the following example:

- (8) *O bjuro nachodok «Delimobilja» slyšali*.IPF *nemnogie (...)* (ru-it PC)
[Not many people *have heard* of Delimobile’s discovery desk]

c) *Contiguous verb*. The label ‘contiguous verb’ is used here to refer to a verbal predicate that denotes a past action occurring before or after the action conveyed by the target verb, as illustrated in Example (9):

- (9) *Uvidel*.PF – *razozlilsja*.PF.
[He *saw* it and *got* mad]

A contiguous verb was annotated only when both predicates were deictic. Instances where a deictic past was paired with a relative past were excluded, as in the following case:

- (10) *Mne prosto rasskazyvali*.IPF, *čto na baracholovke gde-to pokupali*.IPF (RNC)
[I *was just told* that they (*had*) *bought* it at a flea market somewhere].

This factor was considered due to findings from previous research on aspectual competition (i.e., with telic predicates), which demonstrated that the presence or absence of a contiguous verb, along with its aspect, significantly influences aspectual choice (Bernasconi & Nosedá, 2021; Nosedá, 2022; Maiko & Nosedá, 2024). Specifically, when the contiguous verb was perfective, the target verb was more likely to be perfective as well. Conversely, in cases where a contiguous verb was either absent or imperfective, imperfective verbs tended to dominate. This study seeks to determine whether this tendency also holds true for atelic verbs, thereby providing additional evidence for the hypothesis proposed by Plungjan (2004) and Dickey (2018), who argued that the opposition (or competition) between imperfective and perfective in Russian can be interpreted in terms of temporal definiteness versus temporal indefiniteness. According to this view, the imperfective aspect tends to be favored in contexts where situating the action on the temporal axis is either impossible or irrelevant.

d) *Meaning*. Finally, the semantic properties of the verbs were considered, in line with the hypothesis, which posits that perfective verbs morphologically derived from atelic verbs always convey an additional semantic feature. To determine whether this characteristic would manifest in the analysis, specific meanings of

the target verbs within the datasets were annotated in order to identify potential patterns.

The subsequent stages included a preliminary analysis of the examples, followed by statistical tests. These were run in order to determine whether the dependent variable was influenced by one of the above-listed factors in a statistically significant way. The model selected for this analysis was Classification and Regression Trees (CART) (Strobl et al., 2009), whose algorithm performs recursive binary splits in the data based on the independent variables that demonstrate a statistically significant association with the dependent variable. The result is a tree structure that illustrates the optimal way to separate values according to the dependent variable.

3. Results

Although the datasets are not extensive, owing to the relatively small size of the parallel corpus, the investigation allowed to identify several tendencies.

3.1 *Videt'.IPF – Uvidet'.PF*

Corpus data revealed that, compared to the perfective form, *videt'.IPF* more frequently occurs in dialogues (11) and with pre-verbal objects (12), although both narration and post-verbal objects (cf. Example 13) remain the most frequent option with both verbs.

(11) – Tol'ko ty nikomu ne govori. – Ne budu. – Čto ja *videla.IPF carja*.
[– Just don't tell anyone. – I won't. – That I *saw* the tsar.]

(12) – A ty *Mišu videl.IPF*? – Net ešče, – otvetil Viktor.
[Have you *seen Miša*?» «Not yet», answered Viktor.]

(13) On *uvidel.PF* v stal'nom zerkale *svetlo-seroe rasplyvčatoe pjatno*.
[He *saw a light gray blurry spot* in the steel mirror.]

Videt'.IPF more often appears without any contiguous verb, although 11 examples show *videt'* occurring alongside a PF verb (14). In contrast, *uvidet'.PF* often co-occurs with a contiguous PF verb, typically forming a chain of events (15), and never appears with a contiguous imperfective verb.

(14) Ona *videla.IPF* vyraženie lica Alik, i reakcija u nee *okazalas'.PF* samaja bystraja.
[She *saw* the look on Alik's face, and her reaction *was* the quickest.]

(15) Našel ego Savel'ev, *uvidel*.PF s tropy i *zakričal*.PF.

[Savelyev found him, *saw* him from the path and *shouted*.]

Regarding verb meaning, different semantic values were identified. Both verbs most commonly convey the sense of 'to notice/distinguish by sight' (16-17). Additionally, both *videt'* and *uvidet'* can function as synonyms for 'meet' (18-19), although this usage is more frequent with *videt'*. Finally, *videt'* carries an additional meaning not observed with *uvidet'*, namely 'to learn' (20). Conversely, *uvidet'* can occasionally act as a synonym for 'to realize/understand' (21). Naturally, these readings are linked with the aspectual semantics of the perfective and imperfective aspects. Specifically, the semantics of *videt'*.IPF in (18) and (20) relates to the fact that the IPF emphasizes the process and the context in which the action occurs, while the meaning of *uvidet'*.PF in (19) and (21) arises from the focus on the result of the event.

(16) Da, čert voz'mi, ja že tebjā na kserokse *videl*.IPF!

[Hell, yeah, I *saw* you on a mugshot!]

(17) I tut že *uvidel*.PF na blednom lice Bronikovskogo boleznennuju ulybku.

[Immediately he *saw* a pained smile on Bronikowski's pale face.]

(18) Ja ego poslednij raz v Rostove pered vojnoj *videla*.IPF.

[I last *saw* him in Rostov before the war.]

(19) Togda v pervye ja i *uvidel*.PF ee i byl nemalo ozadačen.

[That was the first time I *saw* her and I was quite puzzled.]

(20) Čičikov, kak už my *videli*.IPF, rešilsja vovse ne ceremonit'sja.

[Chichikov, as we *have seen*, decided not to be ceremonious at all.]

(21) Vas'ka sejčas tol'ko *uvidel*.PF, čto poterjal šapku.

[Vaska just now realized that he had lost his hat.]

Finally, to verify whether the ingressive value of the perfective form would emerge in the Italian translation, the latter was also considered in this respect: *uvidet'*.PF is never rendered in the dataset with a periphrasis, or with any other element that explicitly conveys an ingressive meaning.

The results of the preliminary corpus analysis for *videt'*.IPF and *uvidet'*.PF are summarized in Tables 1 and 2. As mentioned in Section 2, each dataset contained 71 examples.

context	dialogue	20
	narration	51
object pos.	pre	22
	post	30
cont. verb	no	58
	pf	11
	ipf	2
meaning	notice/distinguish by sight	40
	meet	25
	learn	6

Table 1. Corpus results – *videt'*.IPF

context	dialogue	2
	narration	69
object pos.	pre	6
	post	43
cont. verb	no	16
	pf	55
	ipf	0
meaning	notice/distinguish by sight	61
	realize/understand	5
	meet	5

Table 2. Corpus results – *uvidet'*.PF

3.2 *Slyšat'.IPF* – *Uslyšat'.PF*

Corpus results for the second verb pair under examination show similar tendencies. In terms of context and object position, *slyšat'*.IPF more frequently occurs in dialogues (22) and with pre-verbal objects (like *vsë* [everything] in 23), although both narration and post-verbal objects are the most frequent option with both *slyšat'*.IPF and *uslyšat'*.PF (cf. Example 24, which displays a post-verbal object in a narrative context).

(22) – Ne znaete po skol'ko dajut? – Segodnja ne znaju. Ja *slyšala*.IPF včera po dva davali.

[– Do you know how much they're giving out? – Today, I don't know. I *heard* they were giving out two yesterday.]

- (23) “Čert, *vsě slyšal*.IPF” – podumal Berlioz.
[“Damn, he *heard* everything”, thought Berlioz.]

- (24) Tut mužčina *uslyšal*.PF za spinoj *šagi* i obrnulsja.
[At that moment, the man *heard* footsteps behind him and turned around.]

Like *videt*’.IPF, the IPF form *slyšat*’ more often occurs without any contiguous verbs (85% of the cases), while *uslyšat*’.PF occurs with a contiguous PF verb 38 out of 67 times (57%) (cf. Ex. 24), a bit less frequently than *uvidet*’.PF. In a few cases (9%) the IPF *slyšat*’ also appears alongside a contiguous perfective verb, although this represents the exception, and in these instances, the verbs never occur in an actual chain of events. In (25), for example, the first two IPF actions seem to be temporally distant from the third (*upustili*.PF).

- (25) I oni videli i *slyšali*.IPF èto i èto *upustili*.PF?
[And they saw and *heard* this, and they *missed* it?]

As far as verb meaning is concerned, both IPF and PF can convey two meanings, namely ‘to hear’ (26-27) and ‘to come to know/hear about’ (28-29). Data show that the latter is more frequent with *slyšat*’.IPF.

- (26) No on tože *slyšal*.IPF stuk i sam spuskalsja so svečoju navstreču.
[But he, too, *heard* the knocking and came down himself with a candle to meet it.]

- (27) «Ezžajte, chorošaja budet doroga», – *uslyšali*.PF my naposledok.
[“Go ahead, it’ll be a good road,” we *heard* one last time.]

- (28) *Slyšali*.IPF, gospoda, pečal’naja novost’ iz Moskvy.
[You *heard*, gentlemen, the sad news from Moscow.]

- (29) Ja tam čitala kurs po Dostoevskomu. *Uslyšala*.PF pro vaš durackij forum.
[I was taking a course on Dostoyevsky. I *heard* about your stupid forum.]

In this case as well, the Italian translation never explicitly conveys the ingressive value of the perfective form.

The results of the analysis for *slyšat*’.IPF and *uslyšat*’.PF are summarized in Tables 3 and 4. In this case, each dataset contained 67 examples.

context	dialogue	30
	narration	37
object pos.	pre	14
	post	18

cont. verb	ipf	4
	pf	6
	no	57
meaning	hear	39
	come to know/hear about	28

Table 3. Corpus results – *slyšat'*.IPF

context	dialogue	3
	narration	64
object pos.	pre	1
	post	43
cont. verb	ipf	1
	pf	38
	no	28
meaning	hear	64
	come to know/hear about	3

Table 4. Corpus results – *uslyšat'*.IPF

3.3 Statistical Tests

The results of the statistical model for the verb pair *videt'*.IPF-*uvidet'*.PF are shown in Figure 1.

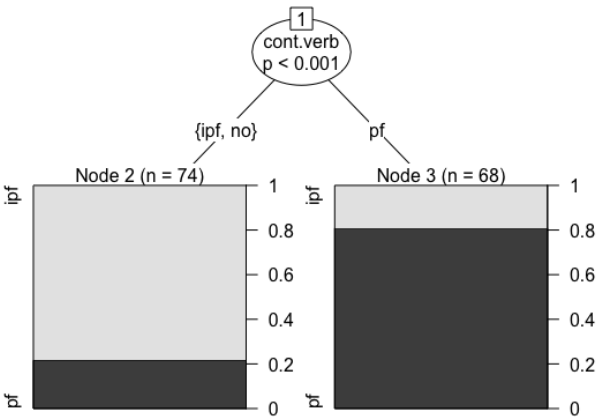


Fig. 1. CART – *videt'*.IPF-*uvidet'*.PF

The model split our data into 3 nodes, using the only significant factor as separator, namely the contiguous verb (cont.verb). The algorithm provides p-values for each split, indicating their statistical significance. In this case, the result is statistically significant since the p-value is much lower than the significance threshold (0.05). The nodes at the bottom (Node 2 and Node 3) show the number of examples in each of them and how the values of the dependent variable (ASPECT) are distributed. The distribution of the values for ASPECT in node 2 is 78% IPF and 22% PF, showing a great predominance of IPF when the contiguous verb is either imperfective or absent. In contrast, Node 3 shows a predominance of PF forms when there is a perfective contiguous verb.

The results of the statistical test for the verb pair *slyšat*.IPF-*uslyšat*.PF are shown in Figure 2.

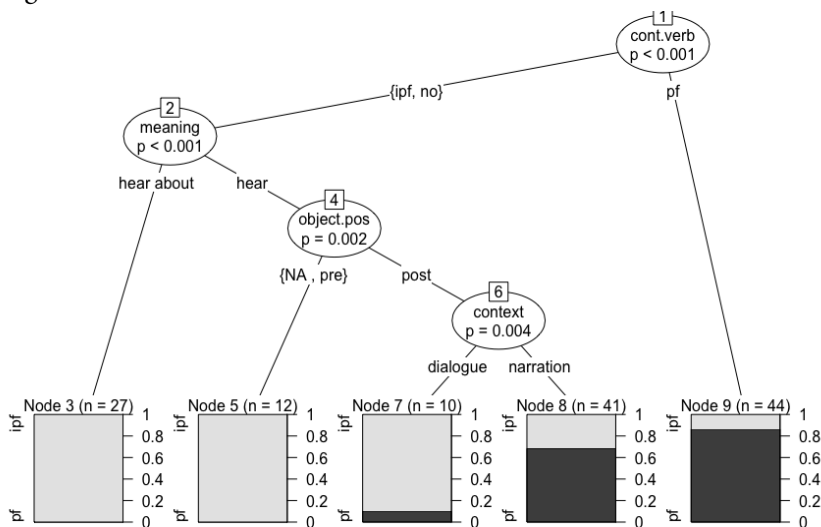


Fig. 2. CART – *slyšat*.IPF-*uslyšat*.PF

The CART shows that in this case all factors are statistically significant, even if the most significant ones are those in Node 1 and 2, namely the contiguous verb and the verbal meaning, both with a p-value lower than 0.001. When the contiguous verb is PF, the graph shows, once again, a strong preference for the PF *uslyšat*' (Node 9). When the contiguous verb is either absent or IPF, the data are split according to the factor MEANING. If the target verb means 'to hear about', the result is Node 3, which does not include any PF forms. If the target verb means 'to hear', the data are split according to the object position: in this case, if there is no object or the object comes before the verb, we observe only IPF forms (Node

5). If the object appears after the verb, the data are split depending on the context (Node 6): in dialogues there is a predominance of IPF, that account for 85% of the cases (Node 7), while in narration PF forms account for 70% of the cases (Node 8).

In summary, except for one combination – precisely when the verb means ‘to hear’, has a postponed object and occurs in narration (Node 8), when there is no contiguous verb or it is IPF, imperfective forms are much more frequent, making the first split the most significant (Node 1).

4. Discussion and Conclusion

In order to discuss the results of the analysis, let us go back to the original research questions:

1. In which contexts are the PF forms *uvidet'* and *uslyšat'* (i.e., the marked forms) preferred over their imperfective counterparts (*videt'* and *slyšat'*)?

Corpus data, and more precisely the statistical analysis conducted, demonstrate, first of all, that for both pairs – *videt'.IPF-uvidet'.PF* and *slyšat'.IPF-uslyšat'.PF* – the presence of a contiguous verb and its aspect is the most significant factor influencing the aspect of the target verb. More specifically, when the contiguous verb is either imperfective or absent, the IPF forms (*videt'* and *slyšat'*) are preferred, whereas *uvidet'.PF* and *uslyšat'.PF* more frequently occur with a PF contiguous verb. This corroborates previous findings, which state that perfective verbs are preferred to express chains of events, indicating narrative progression, whereas the imperfective usually occurs when it is not possible or relevant to place the action on the temporal axis (Plungjan, 2004; Dickey, 2018). In Example (25), for instance – I oni *videli*.IPF i *slyšali*.IPF èto i èto *upustili*.PF? [And they saw and heard this, and they missed it?] – the first two imperfective verbs – *videli* and *slyšali* – might indicate two parallel actions taking place roughly at the same time. The perfective *upustili* obviously took place after *seeing* and *hearing*, but there is no narrative progression, and the time interval between the first two actions and the third is neither clear nor relevant. Adding the fact that the IPF is the more natural form to express past actions with atelic verbs, this explains why the first two events (*seeing* and *hearing*) are not expressed with perfective verbs.

However, the statistical model also revealed some differences between the two pairs. For *videt'.IPF* and *uvidet'.PF*, not only did the contiguous verb prove to be the most significant factor, but it was the only significant one. The CART analysis does not show any other factors considered (see Fig. 1), meaning that their p-value was above the significance threshold. Conversely, in the opposition between

slyšat’.IPF and *uslyšat*’.PF, despite the contiguous verb being once again the most significant variable, the other factors were statistically noteworthy, thus playing a role in the choice of aspect. Particularly significant was the variable MEANING, with a p-value lower than 0.001. In this case, it was shown that the IPF *slyšat*’ has a higher probability of conveying the sense of ‘hear about/come to know’. When the sense of ‘hearing’ is conveyed, other factors acquire a role: so, for example, if there is a post-verbal object in a narrative context, the probability of having *uslyšat*’ is higher.

Naturally, such results should be compared with statistical tests run on larger datasets. Indeed, as part of this ongoing effort to investigate aspectual opposition, the exploration will continue with an analysis of how these verbs are used in spoken corpora, since, as mentioned, the factual imperfective is much more common in spoken language.

2. Where do these pairs of verbs fall on the continuum between *opposition* and *competition*?

Although the observations made here apply only to the analyzed datasets, it is possible to state that the *videt*’.IPF-*uvidet*’.PF pair yields results more similar to those of a pair of telic verbs, i.e., trivial aspectual pairs, which usually exemplify aspectual competition. This is because no other factor plays a significant role in the choice of aspect. Similar studies conducted on other pairs of telic verbs show the same tendency (Nosedà, 2022). As mentioned in Section 1.2, perfective forms derived from atelic verbs are expected to express an additional semantic feature compared to their imperfective base. In the case of *slyšat*’.IPF-*uslyšat*’.PF, the meaning of the verb appears to play a more significant role, as shown by the CART analysis (see Fig. 2), although the variation in meaning between the two forms does not seem to align with the state vs. entry-into-state distinction proposed in the literature. It might therefore make sense, as hypothesized before the analysis, to place these two verb pairs in an intermediate position between *opposition* and *competition*, given that in some contexts the semantic variation between the two forms is less perceptible. And this is even more true for *videt*’.IPF-*uvidet*’.PF²⁰. However, to verify this hypothesis and answer this question with greater certainty, it would not only be necessary to analyze a larger dataset but also desirable to submit questionnaires to Russian native speakers to determine in which contexts and to what extent only one aspectual choice is assessed as possible, both with telic and atelic verbs.

To conclude, corpus data proved useful in identifying certain patterns, although some questions remain unanswered. Finally, the approach employed in this study,

²⁰ By semantic variation, I refer to the additional value carried by the PF form (in this case, ingressive), rather than the aspectual values conveyed by the two forms.

which focused on individual pairs of verbs, allowed for a better understanding of the differences in their aspectual usage that may emerge despite semantic and actional classifications.

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ISTRAŽIVANJE OPOZICIJE GLAGOLSKOG VIDA U RUSKOM: KORPUSNA ANALIZA GLAGOLA *VIDET* – *UVIDET* I *SLYŠAT* – *USLYŠAT*

Rezime

U radu se ispituje opozicija glagolskog vida u ruskom jeziku kroz korpusnu analizu glagola *videt* IPF – *uvidet* PF ('vidjeti') i *slyšat* IPF – *uslyšat* PF ('čuti'). Ovi atelični glagoli koji se najčešće koriste u imperfektivnom obliku za opisivanje prošlih radnji pokazuju značajnu semantičku promjenu u perfektivnim oblicima, koji dodaju ingresivno značenje. Na osnovu podataka iz *Ruskog nacionalnog korpusa* istraživanje ima za cilj da identifikuje kontekste u kojima se perfektivni oblici preferiraju u odnosu na njihove imperfektivne parnjake. Takođe, cilj istraživanja jeste da se utvrdi da li ovi parovi zaista predstavljaju opoziciju glagolskih vidova (semantičke i funkcionalne razlike između oblika) ili konkurenciju vidova (skoro identična značenja). U istraživanju se koristi kombinacija kvalitativne i statističke analize. Primjeri su ekscerpirani iz rusko-italijanskog paralelnog korpusa, što je omogućilo poređenja nijansi glagolskog vida ruskog jezika i italijanskih prevoda. Analizirani ključni faktori uključuju kontekst (dijaloški naspram narativnog), položaj objekta (pre ili posle glagola), prisustvo i vid susjednih glagola, kao i značenje ciljnih glagola. Istraživanjem je otkriveno da prisustvo susjednog glagola, posebno njegov vid, ima najznačajniji uticaj na izbor vida. Imperfektivni oblici češći su kada je susjedni glagol takođe imperfektivan ili odsutan, dok su perfektivni oblici značajno povezani sa perfektivnim susjednim glagolima, što odražava njihovu ulogu u izražavanju niza radnji u naraciji. Rezultati, međutim, otkrivaju razlike između dva para glagola.

Kod glagola *videt IPF – uvidet PF*, vid susjednog glagola bio je jedini statistički značajan faktor, što ukazuje na jaču povezanost sa obrascima teličnih glagola koji pokazuju konkurenciju vida. Nasuprot tome, kod glagola *slyšat IPF – uslyšat PF* dodatne varijable, posebno semantičke razlike, imale su značajnu ulogu. Na primer, imperfektivni *slyšat* često prenosi značenje ‘čuti o nečemu’ ili ‘saznati’, dok perfektivni *uslyšat* češće označava čin slušanja. Istraživanjem se ovi parovi glagola smještaju na kontinuum između opozicije i konkurencije vidova. Rezultati sugerisu da *videt IPF – uvidet PF* više podseća na telične glagole koji predstavljaju konkurenciju, dok *slyšat IPF – uslyšat PF* zauzima međupoziciju jer njegove semantičke nijanse otežavaju strogu kategorizaciju. Uprkos ovim razlikama, ingresivno značenje perfektivnih oblika ostaje implicitno, što je potvrđeno i italijanskim prevodima koji to značenje ne odražavaju eksplicitno. U radu se ističe korisnost korpusnih metoda u proučavanju glagolskog vida, ali i ograničenja, uključujući relativno mali korpus podataka i potrebu za daljim istraživanjima u okviru drugih žanrova, naročito govornog jezika. Takođe, kako bi se s većom sigurnošću utvrdilo da li ovi parovi izražavaju opoziciju ili konkurenciju u kontekstu pojedinačnih i završenih radnji, bilo bi poželjno sprovesti istraživanje među izvornim govornicima ruskog jezika da bi se proverilo u kojim kontekstima je određen izbor vida ocijenjen kao moguć, kako kod teličnih, tako i kod ateličnih glagola.

► **Ključne riječi:** korpusna lingvistika, ruski glagolski vid, opozicija vidova, konkurencija vidova, akcionalnost, *videt IPF – uvidet PF*, *slyšat IPF – uslyšat PF*.

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