ASPECTUAL PREFIX VARIATION IN NOVEL RUSSIAN VERBS

by

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A THESIS

Presented to the Russian, East European, and Eurasian Studies Program
and the Graduate School of the University of Oregon
in partial fulfillment of the requirements
for the degree of
Master of Arts

September 2018

THESIS APPROVAL PAGE

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Title: Aspectual Prefix Variation in Novel Russian Verbs

This thesis has been accepted and approved in partial fulfillment of the requirements for the Master of Arts degree in the Russian, East European, and Eurasian Studies Program by:

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Degree awarded September 2018

THESIS ABSTRACT

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Master of Arts

Russian, East European, and Eurasian Studies Program

September 2018

Title: Aspectual Prefix Variation in Novel Russian Verbs

The study compared prefix variation in novel verbs to prefix variation in standard Russian. Thirty-seven native speakers of Russian participated in the designed experiment. The experiment elicited the perfective verbs formed from the borrowed English nouns. The novel prefixed perfective verbs attested during the experiment were analyzed in comparison with databases for CSR. The analysis revealed significant prefix variation among the novel perfective verbs. It is caused by the broad semantics of the novel verbs and the absence of the restrictions and rules in the language for their formation. The aspectual prefix *za-* demonstrated dominance over other prefixes in the formation of the perfective forms. The Overlap Hypothesis has proven effective for the prediction of the prefixes used for the perfectivization on the basis of the semantic tie between the prefix and the verb's base.

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ACKNOWLEDGMENTS

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CHAPTER I

INTRODUCTION

The contemporary period of Russian society development is characterized by
considerable changes in all social spheres, which have an indisputable impact on a
linguistic situation. Language is quite receptive to the influence of social factors.
Countless new items appear in the lexical system causing numerous semantic innovations
and renovation. These processes are so dynamic, that lexicography does not keep up with
it. *Bol'šoj Tolkovyj Slovar'* (Kuznecov, 2008), the most recent comprehensive dictionary
of contemporary Russian, was published 10 years ago. Such lack of up-to-date
descriptive and prescriptive information creates difficulties with operating an extremely
versatile verbal paradigm, especially for learners of Russian as a second language.

A central feature of the Russian aspectual system is the prefixation of
imperfective base verbs to create perfective ones. Descriptively speaking, prefixation
constitutes the most common means of perfectivization in all Slavic languages. For
instance, while the verb *pis-a-t'* 'write-VC-INF, to write' is imperfective, such verbs as *do-
pis-a-t'* 'end.PRF-write-VC-INF, to finish writing', *pere-pis-a-t'* 'redo.PRF-write-VC-INF, to
rewrite' and *pod-pis-a-t'* 'under.PRF-write-VC-INF to sign' are all perfective. Moreover, as
in these examples, a given stem may combine with different prefixes since, in addition to
having a perfectivizing effect, such prefixes are associated with a wide range of further
semantic contributions. A prefix may contribute a spatial, cumulative, diminutive,
inchoative, completive or distributive interpretation, to list just a few possibilities. There
are 23 productive verbal prefixes in Russian (Švedova, 1980: 357). They can stack (*po-
raz-nos-i-t'*-Pf 'some.PRF-SPREAD-carry-VC-INF, 'to have carried things to different

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people for some time'), and at some point of the derivation process the imperfective

suffix can be attached (e.g., *pere-pis-iva(j)-t'* 'redo.PRF-write-IMPRF-INF, to be

rewriting'). Thus in principle, for each verbal stem there can be plethora of derived verbs,

not taking into account the polysemy of individual prefixes (*pere-var-i-t'* 'redo.PRF-cook-

VC-INF, to recook' vs. *pere-var-i-t'* 'overdo.PRF-cook-VC-INF, to overcook' vs. *pere-var-i-

t'* 'thorough.PRF-cook-VC-INF, to digest'). Moreover, the traditional descriptive

approaches adopted in grammars and dictionaries provide information about the range of

interpretations a given prefix may receive, but do not indicate in which contexts which

interpretation applies, unless the derived verb is itself present in the dictionary.

Prefix variation is the formation of two or more perfectives, from a single

imperfective base verb forms which recent research has shown to be both frequent and

systematic in contemporary standard Russian (CSR). Perhaps one can best illustrate the

point with the example of newly introduced verbs like *guglit'* 'to Google'. If one asks

Russian speakers how to fill in the prefix in the sentence *Ja sejčas____guglju ego

familiju* 'I'll Google his last name right away,' some speakers will choose *pro-*, others *za-

*, others *po-*, and others something else. A Google search shows, that almost every major

perfectivizing prefix is currently used in combination with this verb (i.e., *pereguglit'* 'to

regoogle', *doguglit'* 'to finish google', *poguglit'* 'to google for some time').

In order to successfully comprehend Russian texts, a reader needs to understand

complex verb formation, as it is a productive mechanism and current dictionary data is

not sufficient. Because the last dictionary of new words in Russian came out a decade ago

(Kuznecov 2008), there is a need for a descriptive list of new prefixed verbs that

appeared in the language 10 years ago and later. This thesis looks into native speakers'

choices of prefixed perfective forms of new verbs derived from English loan nouns in the

current absence of prescriptive lists for them.

The thesis focuses on prefixed perfective forms and prefix variation in novel Russian verbs, i.e., denominal verbs, like *guglit'* from *Gugl*, that do not appear to be attested in the language. To my knowledge, this issue has not been studied previously. The thesis is based on an experiment in which native speakers were provided with stimuli to form prefixed variants of novel unprefixed imperfective verbs.

The main goal of the thesis is to determine whether prefix variation behaves differently in novel verbs than it does in CSR, by answering the following questions:

(a) How common is prefix variation in novel verbs in comparison with CSR?

(b) What does an analysis of prefix variation on the prefix level indicate?

(i) Are there differences between novel verbs and CSR when it comes to which prefixes each prefix can alternate with?

(ii) Are certain prefix alternations more common in novel verbs than in CSR?

(c) What does prefix variation on the verb level indicate?

(i) Is prefix variation prevalent in novel verbs in comparison with CSR or not?

(ii) What might cause potential differences between CSR and novel verbs?

(iii) Which prefixes are dominant in the perfectivization of novel verbs?

(d) Is it possible to predict the prefix that could be used to form perfectives for certain new verbs based on any lexical or grammatical criteria?

Chapter 2 gives overview of the scholarly literature on a verbal aspect in Russian and prefix variation in CSR. The methodology of creating the database of novel verbs is described in detail in Chapter 3.

Addressing the above questions one by one, Chapters 4 examines prefix variation at the level of individual prefixes, focusing on prefix alternation, the choice of prefixes by

verbs that engage in prefix variation. It looks at which prefixes, in both CSR and novel verbs, can occur in alternation with each other in the formation of perfectives from the same base verb. Chapter 5 continues this examination by looking at whether there are differences in the different categories of verbs that have prefix variation. Chapter 6 looks into the Overlap Hypothesis, according to which the meanings of prefixes overlap with the meanings of verbs when they are used to form aspectual pairs (Janda & Ljaševskaja 2011: 147), and tests it as an instrument in predicting which prefix will be selected to form a given perfective variant of an unprefixed imperfective novel verb.

A goal of the thesis is to contribute to a better understanding not only of how novel verbs behave, but also of the processes of change within the verb paradigm that Russian is currently undergoing.

CHAPTER II

REVIEW OF ASPECT AND PREFIX VARIATION

This chapter will provide an overview of previous research, relevant to this thesis. As the focus of this thesis is prefix variation in perfectivizing prefixes in novel Russian verbs, it is needed to start by looking at what aspect is. As aspect has been the topic of extensive literature, it is far beyond the scope of this chapter to provide a coherent summary of everything that has been written previously. I, therefore, merely provide a brief overview of what aspect is in general and how the Russian morphological aspectual system functions. I briefly address the grammatical, lexical, and discourse approaches to aspect in Slavic languages, and the notion of *Aktionsart* (*sposob dejstvija*, 'type of action') in Slavic linguistics. After that, I demonstrate how the morphological process of prefixation in Russian functions, and then I introduce the term *prefix variation* in Russian verbs, which is analyzed by this thesis.

2.1. Aspect in Russian: Grammatical vs. Lexical

There are two generally recognized aspects in Russian, perfective and imperfective. A standard definition of aspect, put forward by Comrie, is that aspects are "different ways of viewing the internal temporal constituency of a situation" (1981: 3). Generally, when any action is described by a perfective verb, it is construed by the speaker to be an unanalyzable as a (usually completed) whole and the speaker is not concerned with the internal structure of the event (Comrie 1981: 4). The imperfective serves the opposite purpose: it views the situation from the inside and focuses on the internal structure of the event. The choice of how to describe an event is the speaker's.

Often the same event may be described with both perfective and imperfective verbs, depending upon the speaker's intent. Universally, aspect is a semantic phenomenon that can be expressed lexically and through contextual features. Besides, some languages can also express aspect morphologically.

Perfective and imperfective verbs are morphologically and semantically distinct in the Slavic languages, including Russian. The scholarly research on Russian aspectology is based on one of the three viewpoints: aspect being a grammatical opposition, aspect governed by lexical factors, and aspect as a discourse category (Bermel, 1997: 27). These viewpoints are not mutually exclusive, and are often combined within one model.

A lot of Slavic linguists generally agree that aspect constitutes a grammatical category in Russian and that most verbs in the lexicon are classified as either perfective or imperfective (see, for example, Forsyth 1970, Rassudova 1984, Zaliznjak & Šmelev 2000). According to Rassudova (1984:9), grammatical category of aspect in Russian forms an opposition between a marked and unmarked member. The perfective aspect is considered to be the marked member in opposition to the unmarked imperfective aspect. In Russian, the majority of the verbs obligatorily express this opposition on a morphological level, with an exception of a few biaspectual verbs. The so-called bi-aspectual verbs, which have the same form for both aspects, must be interpreted as either imperfective or perfective in any given context (e.g., *ženit'sja* 'to get married', *ranit'* 'to wound'). The morphological aspect-marking system in Slavic consists of a series of roots (e.g., *pere-vod-i-t'*-Impf 'transfer-lead.IMPRF-VC-INF, to translate' and *pere-ves-ti*-Pf 'transfer-lead.PRF-VC-INF, to translate'), perfectivizing prefixes (which generally also mark Aktionsarten, as mentioned in Chapter 1), and suffixes (most of which

imperfectivize prefixed perfectives derived from unprefixed imperfective verbs, except for the semelfactive perfectivizing suffix *nu-,* as in *krik-nu-t'*-Pf 'shout-SEM.PRF-INF, to scream once'). The aspectual morphology is very complex. Forsyth mentions its irregularity and admits, that, despite the connection between the verbal form and aspect, it is not possible to determine the aspect of a verb only from its form (Forsyth,1970:17).

Other scholars have for some time been in favor of grouping Russian verbs into semantic or lexical categories to distinguish their aspect (see, for example, Maslov 1948, Isačenko 1960). Maslov (1948) has grouped verbs according to the type of actions they represent into five aspectual oppositions[1]. Pointing out that most of the verbs exclude some of these five contexts, Maslov hypothesizes that semantic features of each verb lie in the basis of the aspectual opposition.

2.2. Aktionsart in Slavic Languages

The German term 'Aktionsart' literally means 'kind of action'. This category introduces a more refined aspectual categorization of events, for instance, the telic Aktionsart introduces the notion of an inherent goal or result, ingressive Aktionsart - the notion of a beginning, delimitative Aktionsart - the notion of a limited time span, etc.

Introduced by the Germanic tradition, right from the start Aktionsart was treated as something that could be expressed in a variety of ways, such as by verbal lexical

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[1] Type A: Actions in the process of fulfillment vs. accomplished facts (e.g., *delat'*-Impf 'to be doing' vs. *sdelat'*-Prf 'to have done)*; Type B: Tendencies towards facts vs. actual accomplishments (e.g., *lovit'*-Impf 'to be catching' vs. *ponimat'*-Pf 'to have caught', Type C: Actions with no limits vs. action with limits (e.g., *guljat'*-Impf 'to be walking' – *poguljat'*-Impf 'to walk for some time'), Type D: undefined number of repetitions of an action vs. single action or repeated finite number of times (e.g., *čitat'*-Impf 'to read' – *pročitat'*-Pf 'to finish reading/ have read'), and Type E: actions with undefined terms of realization vs. concrete occurrences (e.g., *pisat'*-Impf 'to write' vs. *napisat'*-Pf 'to have written') (Maslov, 1948 in Maslov, 1984:303).

semantics, by formal means (morphology and syntax), or by tenses or explicit tense markers. Having been transposed to Slavic linguistics, it was assigned a slightly different meaning. In the Slavic tradition, Aktionsart only specifies in more detail how the action takes place — that is, it modifies the lexical meaning of the basic verb, but not change it completely. Isačenko (1960: 363) defines Aktionsart as derived by formal (i.e., morphological) means. According to Townsend (1980: 118), the domain of Aktionsart modifies the verb which results in an aspectual shift (imperfective to perfective) and is performed mainly through prefixation and some suffixes, e.g., suffix *-nu-*. Townsend offers a list of sublexical prefixes that modify the action with respect to time or intensity (e.g., po-pis-a-t' 'some.PRF-write-VC-INF, to write for some time') and are distinguished from lexical prefixes that introduce new lexical element (e.g., pod-pis-a-t' 'under.PRF-write-VC-INF, to sign').

In the analysis of my data I mention two classifications of Aktionsarten. The first one follows Vendler (1967), according to whom four event types are normally distinguished: states, activities, accomplishments, and achievements. These types are represented combinations of semantic Aktionsart features including telicity or atelicity, durativity or punctuality, and dynamicity or stativity. The relevance of the Vendlerian classes in Slavic and their interaction with the grammatical aspectual categories has been discussed in a fair number of works, including works by Kučera (1983), who strongly advocated in favor of that approach. It is also interesting that these lexical classes can cut across the perfective/imperfective distinction (Padučeva, 1996: 91-94), with accomplishments being the only class that is naturally expressed by both perfective and imperfective verbs in Russian. States and activities are by default restricted to imperfective aspect, but can be perfectivized with the prefixes *po-* and *pro-*. According to

Flier (1985: 49), delimitative prefixes *po-* and *pro-* anchor Activities and States to a specific interval in time. For example, the verb *požit'*- Pf 'to live for a period of time' entails a state of living and is at the same time perfective. Achievements, on the other hand, are perfective (*razbit'*-Pf 'to break'), but also acquire a habitual or an iterative reading in the imperfectivized form (*razbivat'*-Impf 'to be breaking').

In the thesis I also use the semantic Aktionsart classification that is widely used in the Russian-language literature on aspect in Russian, listed and described in Zaliznjak & Šmelev (2000: 106-126). It distinguishes between the Temporal[2] Aktionsart, which includes inchoative[3], ingressive[4], delimitative[5], perdurative[6], and finitive[7] subcategories; the Quantitative[8] Aktionsart, which includes semelfective[9], attentuative[10], iterative[11] subcategories; and the Resultative[12] Aktionsart, combining terminative[13], completive[14],

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[2] First introduced as 'Phasenbedeutung' by Isačenko (1962:388); characterized by the feature of focusing attention on a specific period of time (Z & Š, 2000: 106)
[3] Focusing on the starting point of the action, e.g. *zazvonit'*-Pf 'to start ringing' (Z & Š, 2000: 107)
[4] Focusing on a starting point of a movement, e.g. *poletet'*-Pf 'to start flying' (Z & Š, 2000: 109)
[5] Focusing on a specific period within an action that is regarded in its entirety, *pobegat'*-Pf 'to run for some time' (Z & Š, 2000: 111)
[6] Focusing on the end of an action that has lasted a specific period of time, e.g. *prosidet'*-Pf 'to spend some time sitting' (Z & Š, 2000: 112)
[7] Refers to an action that has been finished and will not occur again, e.g. *otgoret'*-Pf 'to burn down' (Z & Š, 2000: 113)
[8] Focusing on the intensity or frequency of actions (Z & Š, 2000: 106)
[9] Refers to single actions that are morphologically marked as taking place once, e.g. *bryznut'*-Pf 'to splash once' (Z & Š, 2000: 118)
[10] Modifying the action in terms of its intensity, e.g. *podtopit'*-Pf 'to drown (a little, not completely)' (Z & Š, 2000: 121)
[11] Refers to the repetition of the action, e.g. *siživat'*-Impf 'to sit down for a while and regularly' (Z & Š, 2000: 121)
[12] Refers to an action has been brought a result (Z & Š, 2000: 106)
[13] Focusing on the end of an action without indicating whether the action has been cancelled or successfully brought to an end, e.g. *probežat'*-Pf 'to finish running' (Z & Š, 2000: 116)

cumulative[15], and distributve[16] subcategories. These categories are useful for analyzing prefix variation and even prediction of the prefix selection in the production of certain verbs. For example, the Ingressive Aktionsart, which focuses attention on the beginning of an action, usually employ prefix *za-*; whereas the Finitive Aktionsart, focusing on an action that has been finished by cancelling, is represented with the prefix *om-*. It is, however, not always the case that there is one single prefix for each Aktionsart. For example, the Attentuative type can refer to verbs with prefixes *po-, pri-*, and *pod-*, depending on semantic characteristics of an individual verb and the context it is used in. Therefore, knowing the correlation between different Aktionsarten and prefixes is helpful, since it can predict some of the prefixes, like *za-* for Inchoative, but not sufficient for predicting which prefixes would be used to form perfectives in which context situations, as some Aktionsarten can be used with several prefixes, like Attentuative (*popit'*-Pf 'to drink a little' with *po-* and *podkosit'*-Pf 'to mown a little' with *pod-*).

2.3. Discourse Approach to Aspect

The third approach to Aspect treats it as a function of discourse, taking into account contextual and pragmatic factors. A main tenet of this approach is that there is no clear differenciation between grammatical and lexical categories, but there is instead a continuum between these two types of categories. The discourse approach is focused on the various discourse functions of aspect and their use in context (Bermel, 1997:43).

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[14] Refers to an action has been brought a successful end, e.g. *dobežat'*-Pf 'to reach destination running' (Z & Š, 2000: 117)

[15] Refers to verbs denoting accumulation of the result of an action, e.g. *nagotovit'*-Pf 'to finish cooking a lot of food' (Z & Š, 2000: 118)

[16] Refers to an action taking place as a series of single actions, potentially even at different locations, and still be considered as being one event in its entirety, e.g. *perekusat'*-Pf 'to have bitten everyone' (Z & Š, 2000: 124)

Chvany (1985 in Chvany, 1990) offered a system of reinterpreting aspect as a function of discourse. She assessed the relation between the predicate and the context, and determined the aspect by assigned values of discourse salience on a scale from 0-4, with the highest value given to the predicate closest to the foreground, and 0 – to the predicate in the background. She showed that both aspects occur in foreground and background, though perfectives mostly appear in the foreground, while imperfectives - in the background. Chvany determined the features indicating predicates in the foreground (and, therefore, perfective aspect), which include, among others, main clause, indicative mood, high volition, Nominative case of the Subject, Affirmative sentence (Chvany, 1990: 220).

Timberlake uses the lexical features of the verbs as the basis of an aspect, but acknowledges the influence of context and discourse on aspectual choice (Bermel, 1997: 43). He proposes a way to distinguish between types of actions based on observing the act at different points in time, and demonstrates the relevance of such classification to the usage of aspect. He considers the dominance of the aspect as a grammatical category without reference to the lexical content to be inadequate (Timberlake, 1982: 306-310).

He argues that certain morphological criteria are more successfully predicted by semantic features of predicates, than the grammatical aspect. Timberlake (1982) points out that the instrumental case with predicate nouns is promoted by temporal limitation of an action or state, as in *On byl studentom*-INSTR *dva goda* 'He has been a student for two years'. The nominative is used with temporally unrestricted states, meaning that the statement is generally true (*Ved' on byl člen*-NOM *Politbjuro* 'After all he was a member of Politburo'). In terms of tense sequencing, the semantic class of state vs. process is predicted by Synchronization of the predicates, which is defined as matching of two

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actions in time (Timberlake, 1982:320). When the main clause is in the past tense, synchronized verbs govern the past tense in embedded clauses and are processes, while unsynchronized ones govern the present tense and are states.

Later, Timberlake (1984) also sets up an aspectual system that is derived from the notion of action contour. He uses three points in time to analyze an act and evaluate the nature of an action as stative, active, or result-oriented. The system combines the lexical approach (action contour) and discourse (assumption about the point of view of the action).

2.4. Review of Prefixation

As discussed above, the derivational morphology of Slavic aspect, in part, lies in the process of prefixation. In general, as observed by Forsyth[17] and Comrie[18], it is possible to form a perfective verb from an imperfective verb.

Isačenko (1960:148) provided the following list of twenty productive verbal prefixes in modern Russian, including their allomorphic variants: *v- (vo-); vz- (vs-, voz-); vy-; do-; za-; iz- (is-; izo-); ; na-; nad- (nado-); nedo-; o- (ob, obo-); ot- (oto-); pere-; po-; pod- (podo-); pred-; pri-; pro-; raz- (ras, razo-); s- (so-); u-.* Švedova (1970: 357) gives a list of 23, distinguishing between *s-* and *so-, o-* and *ob(o)-,* and *vz-* and *voz-* while Isačenko treats them with as allomorphs. Vinogradov (1947), Isačenko (1960) and Švedova (1970) use the traditional description of Russian verbal prefixes which consists of lists of submeanings or homonyms subsumed under a given prefixal morpheme,

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[17] "Simple verbs, verbs without a prefix, are imperfective, the addition of a prefix to a simple verb makes it perfective." (Forsyth,1970:18)

[18] "Perfectives are formed from Imperfectives primarily by prefixing, less commonly by suffixing....In Modem Russian, then, Perfective/Imperfective pairs are related primarily either by the Perfective being a prefixed derivative of the Imperfective, or by the Imperfective being a suffixal derivative of the Perfective." (Comrie, 1976:89)

making no mention of any relations between those submeanings.

More recently, Townsend (1980), Gribble (1981), Janda (1986), Paillard (1997), Kagan (2012, 2015), and Janda et al. (2013) attempted to unify various prefix usages under more general descriptions. The first attempt was made by Flier (1975, 1984). Dissatisfied with purely descriptive representations of semantics of Russian verbal prefixes, Flier (1975, 1984) tried to figure out how the different meanings of prefixes are related, and to provide structured models of prefix semantics with an emphasis on connectedness for the observed range of meanings. Instead of created catalogs of unrelated meanings Flier (1975, 1984) tackled the problem of Russian verbal prefix semantics by positing a single invariant meaning for each prefix. The various meanings of a given prefix were seen as contextually derived from that invariant. The variation in meanings of a single prefix is, therefore, understood to be a reflection of a single abstract concept, or invariant, that is, the single underlying meaning of the prefix, of which all other meanings are context-induced connotations.

However, the invariant meaning often had to be highly abstract in order to account for widely disparate senses of the same prefix, and as a result it became difficult to see exactly how these abstractions could account for the meanings in context (Janda, 1986: 32). In order to get a semantically sound description of verbal prefixes, Janda (1986) created a new approach[19] by modifying Flier's one. Her approach removed the necessity to identify invariant properties, but required the discovery of the prototypical meanings relevant to a given category, and the relations, which link the members to a prototype. With a central, prototypical member is connected to less prototypical/more peripheral members via various cognitive mechanisms, usually metonymy and metaphor

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[19] Modified Structuralist Approach (Janda, 1986: 44).

(Janda, 1986: 44-66). For example, the semantic category of the prefix *pri-* has the prototype ARRIVE (*priletet'* 'to arrive flying') plus three meanings directly connected to the prototype: ATTACH, ADD, and ATTENUATE (Janda, 1986: 64-69). The meaning ATTACH is thought of as a type of ARRIVAL that results in something becoming fixed in a place (*privintit'* 'to screw onto'), ADD denotes an arrival that increases a larger whole (*pristrojit'* 'to build on'), while ATTENUATE is related to ADD and ATTACH both of which involve introducing something smaller. The ATTENUATE meaning focuses only on that component (*priglušit'* 'to muffle a bit').

Janda's (1986) approach to semantic classification of prefixes avoids applying only one invariant meaning that needs to be fit in any context the verb with such a prefix is used, making the classification more accurate. At the same time, it demonstrates the relation between the submeanings of prefixes. For that reason, I used classification given in Janda (1986), and Janda et al. (2013) for the analysis of my data. I also used the famous list of prefixes by Gribble (1981) to complement Janda's classification with several meanings that were missing, and compiled all the meanings of Russian aspectual prefixes (Table 1). In Chapter 6, I describe in details application of that compilation for semantic profiling and analysis. The most polysemic prefixes are *pere-* with 11 meanings, *za-* and *u-* with 10, and *o(b)-* with 9.

Aspectual Prefix	Meaning(S)
v-	INTO
v(o)z-	MOVE UP; BEGIN SUDDENLY;
vy-	OUT OF; EMPTY; TO THE END;

do-	UP TO; UNTIL THE END/LIMIT; IN ADDITION
za-	DEFLECT; SURFACE; ACCUMULATE; EXCESS; BEGIN; EXCHANGE; CHANGE TO A FIXED STATE; ATTACHMENT; COVER; FILL
iz-	OUT OF; EXTREME
na-	ACCUMULATE; SURFACE
o(b)-	AROUND; PASS; OVERDO; MISTAKE; AFFECT MANY; AFFECT A SURFACE; ENVELOP; IMPOSE/ACQUIRE A NEW FEAUTURE
ot-	DEPART; BOUNCE; UNSTICK; MAKE NON-FUNCTIONAL; STOP AT ENDPOINT
pere-	TRANSFER; THOROUGH; SUPERIORITY; OVERDO; REDO; DURATION/OVERCOME; BRIDGE; TURN OVER; MIX; DIVIDE; SERIATIM
po-	RESULT; SOME; DISTRIBUTE; START
pod-	APPLY TO BOTTOM; HORIZONTAL APPROACH; ADJUST; INCREMEMNT; MINIMAL ACTION
pri-	ARRIVE; ATTACH; ADD; ATTENUATE
pro-	THROUGH; THOROUGH; DURATION; DISTANCE; PASS
raz-	SPREAD; INTENSELY
s-	ONCE; TOGETHER; DOWN

u-	MOVE AWAY; COVER COMLETELY; PLACE/FIT; DEPART FROM NORM; CONTROL; KEEP/SAVE; MOVE DOWNWARDS; PERCEIVE; REDUCE; HARM

Table 1. Semantic meanings of Russian aspectual prefixes (based on Gribble 1981, Janda 1986, Janda et al. 2013)

2.5. Aspectual Prefix Variation

One of the indisputable facts of Russian aspectology is that there is a clear correlation between prefixation and perfectivization. Townsend (1980:116) distinguished between nonsemantic and semantic verbal prefixes. If the former merely perfectivizes the imperfective stem (*na-pis-a-t'*-Pf 'PRF-write-VC-INF, to write'), the latter not only perfectivizes, but also alters the meaning of the stem (*za-pis-a-t'*-Pf 'PRF.surface-write-VC-INF, to write down'). Some scholars disagree with such distinction, favoring either Empty Prefix Hypothesis[20], according to which the prefix makes no contribution to the meaning of the perfective verb (Janda & Ljaševskaja , 2011:148), or Overlap Hypothesis, according to which semantic overlap between the prefix and the verb camouflages the meaning of the prefix, causing the illusion that it is empty when in fact it is not (Janda & Ljaševskaja, 2011:148). Therefore, verbal prefixation not only plays a central role in Slavic aspectual system and word formation, but also contributes to its complexity. The main reason for that is that Russian prefixes are particularly characteristic of polysemy: e.g., the prefix *pere-* has 11 meanings according to Janda (1986: 134-173).

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[20] First formulated in Janda & Ljaševskaja (2011:148), idea first proposed by Šaxmatov 1952

The extensive polysemy and variety of Russian aspectual prefixes contributes to prefix variation. A verb is defined as displaying prefix variation whenever it can use more than one prefix, that alternate to produce perfectives from that verb. The phenomenon of prefix variation is a topic that has been very scarcely examined; in fact, it was never thoroughly explored before the Exploring Emptiness project at the University of Tromsø in Norway that started in 2007 and set out to lay the debate between the Empty Prefixes Hypothesis and the Overlap Hypothesis to rest. This thesis will rely heavily on their findings and adopt their terminology.

Janda and Ljaševskaja found that 27% of the 1,981 verbs that form perfectives via prefixation can do so with more than one prefix. These 1,981 verbs were formed from 1,429 Impf verbs, which indicates that 552 (39%) more perfectives than would be if each Imperfective formed only Pf and demonstrated no prefix variation, i.e., took only one prefix to do so. The research conducted within the framework of the Exploring Emptiness project finds that prefix variation is both frequent and systematic in CSR. An example of a verb that forms perfectives with more than one prefix is *marat'* 'to soil', which has four perfectives in *vymarat', zamarat', izmarat'* and *namarat'* that can be interchangeably used in the same context (Janda and Ljaševskaja, 2011:148). For example, sentences '*Ja zamaral kurtku v grjazi'* and '*Ja izmaral kurtku v grjazi'* both mean 'I soiled the jacket with dirt'.

By examining the behavior of individual prefixes, Janda and Ljaševskaja found that *s-* and *za-* can combine with all other prefixes, and that *po-* can combine with all prefixes except *v-*. In fact, *po-* has the largest distribution in their data, occurring nearly twice as many times as the second most frequent prefix, *s-*, becoming, in their view, the

"default perfectivizer", developing the simple perfective meaning and adding no semantics (Janda and Ljaševskaja, 2011: 150). A general tendency they observed was that prefixes that are more involved in the formation of perfective verbs are more likely to engage in prefix variation, both in terms of the number of simple Impf verbs that are used with the prefix, and in the number of other prefixes that are found in alternation with each other. In other words, frequent prefixes, as expected, are also more frequently attested in prefix variation and tend to combine with a greater number of other prefixes, although not without exceptions: for example, *vy-* engages in prefix variation nearly twice as often as *pro- (vy-* alternates with other prefix(es) to form perfective forms from 87 base verbs, while pro- - from only 44 verbs), although *pro-* is slightly more frequent with overall token frequency of 141 compared to 122 for *vy-* (Janda and Ljaševskaja, 2011: 150). Another exception is that *vz-/voz-* engages in very little prefix variation compared to its overall frequency. They explain it by *vy- and vz-/voz* generally being limited to directional meanings unlike most of the prefixes that has broader semantic meanings.

Janda & Ljaševskaja (2011) introduce the idea of Overlap Hypothesis, according to which "the prefix makes a contribution to the meaning of the perfective, however, the meaning of the prefix overlaps with the meaning of a simplex verb" (p. 9). They also point to how the Overlap Hypothesis can, to a large extent, predict which prefix is chosen by which verb. According to the hypothesis, the meanings of the prefixes overlap with the meanings of the unprefixed verb. The prefix *raz-,* for instance, can have the meaning 'swell', thereby turning a verb like Impf *dut'* 'to blow' into Pf *razdut'* 'to inflate, 'to swell by blowing'. The unprefixed verb *puxnut'* 'to swell' would therefore be likely to have *raz-* as the prefix in its PF form (p. 12). The possibility of predicting the prefix that will be used to form a perfective form based on the semantics of a base verbal form would

help answer one of the research questions of this thesis, "Is it possible to predict the prefix that could be used to form perfectives for certain new verbs based on any lexical or grammatical criteria?" The O.H. is tested in Chapter 7 by applying semantic profiling[21].

Chapter 3 will give an overview of the methodology for this study, describing the process of gathering and analyzing the necessary data to examine prefix variation in novel Pf verbs and to test Overlap Hypothesis for prefix prediction.

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[21] Semantic profiling is a type of behavioral profiling, which is used for making comparisons across linguistic data. A profile is established by collecting and tagging corpus data, and then examining the relationship between meanings (semantic tags) and forms (Nesset, Endresen, Janda, 2011: 379). In this study, the focus of analysis is distribution of prefixes and semantic classes of verbs.

CHAPTER III

METHODOLOGY

This chapter presents the methodology used in the experiment on prefix variation in creating Pf forms of novel Russian verbs. Since part of the goal was to make a comparison of prefix variation in CSR verbs and in novel verbs, I used the database, created for the Exploring Emptiness research project at the University of Tromsø, which contains an extensive collection of aspectual pairs in CSR found in fairly recent dictionaries that are formed via prefixation. This was done by creating an aggregate of the aspectual pairs listed in Evgen'eva's (1999) and Ožegov and Švedova's (2001) dictionaries of Russian, as well as in Cubberly's (1982) article on "empty prefixes" in Russian. As noted earlier, the resulting database contains 1,429 unprefixed imperfectives that form perfectives with one or more prefixes, and features a user-friendly search function for analyzing prefix variation in CSR (http://emptyprefixes.uit.no/). The database can be consulted for various parameters, including which prefixes are attested with a given verb, its morphological and semantic class, its frequency in the Russian National Corpus (RNC), its definition, and the dictionaries that list it.

As for novel verbs in Russian, however, neither a database nor an extensive dictionary that includes novel verbs exists. For that reason, I designed an experiment to obtain that data. The design of the experiment is described below.

3.1. Participants

Thirty-seven native speakers of Russian residing in Russia, eleven males and

twenty-six females, participated in the experiment. Their mean age was 19.0 years (SD=1.9; range 18–25 years). I targeted a younger group of speakers primarily because I believed that there may be more usage and acceptance of borrowed elements among this generation, due to their greater exposure to and enthusiasm for American and Western European electronic and print media.

The participants were monolingual speakers who had grown up and resided mostly in Nizhny Novgorod and spoke educated Standard Russian. They were all students of the School of Interpreting and Translation of Nizhny Novgorod State Linguistic University, which means that they had taken language courses and studied the stylistics of the Russian language. All second- and third-year students in the English Department were informed about the experiment the day before and encouraged to collaborate by their language instructor. On the day of the experiment, thirty-seven volunteered to participate. The participants were naive as to the purpose and subject of the experiment.

Ideally, it would be better not to limit participants to only those majoring in English. However, I was able to recruit only them because their language instructor agreed to cooperate, while instructors of other groups were not able to adjust their lesson planning to fit in the experiment. Native Russian speakers living in the United States were not used, to avoid possible influence of native language attrition.

3.2. Materials and Stimuli

The empirical data were obtained through questionnaires and an elicited response test. First, a questionnaire was designed for the experiment that contained biographical questions, regarding the participants' gender, native language, place of birth, and details

of foreign language learning experience. The elicited response task, the task setting up

the context and prompting for the eliciting of the target structures, consisted of

incomplete written sentences in the past tense with a blank that would elicit a prefixed

perfective verb form; the participants were asked to fill in the blank with an appropriate

verb derived from a given borrowed loan noun. None of the nouns used had well-

recognized derived verbs in Russian or even equivalent derived Russian verbs: *konsiler*

'concealer', *segvej* 'Segway'[22], *podcast* 'podcast', *krossfit* 'crossfit', etc. These are all

new-concept nouns borrowed for products, activities, and ideas recently introduced from

Western countries. The nouns included new social media platforms and messengers,

innovative means of transportation and cosmetic products, newly developed styles and

types of fitness activities. For some of the nouns, a picture illustrating the activity of an

object was included to ensure the correct comprehension of the meaning. I used the

Russian Yandex search engine to check whether the use of verb possibly derived from the

stimuli noun had yet been attested. As a result, several nouns (e.g., *feisbuk* 'Facebook',

tint 'tint 'cosmetic product', etc.) were excluded, since there already were established

perfective verbs derived from them. Four such nouns (*torrent* 'torrent', *instagram*

'Instagram', *piar* 'PR', *skajp* 'Skype') were included herrings. The total of eighteen

borrowed nouns and one noun phrase (*ekstrašot* 'extra shot') were used as target stimuli

for the production of prefixed verbs. All the nouns used are provided in Table 2.

1. *bitcojn*	'Bitcoin'
2. *ekstra šot*	'Extra shot'
3. *vandrajv*	'OneDrive'
4. *konsiler*	'concealer'
5. *xajlajter*	'highlighter'

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[22] Brand name, 'a smooth transition'. Derived from Italian segue 'it follows'
(http://www.etymomline.com)

6. xotspot	'hotspot'
7. bodibar	'bodybar'
8. parkur	'parcour'
9. segvej	'Segway'
10. densxoll	'dancehall (style of dance)'
11. iksboks	'Xbox'
12. krossfit	'crossfit'
13. snepčat	'snapchat'
14. podkast	'podcast'
15. majnkraft	'Minecraft (computer game)'
16. vičat	'WeChat (messenger)'
17. netfliks	'Netflix'
18. uber	'uber (cab)'
19. džipies	'GPS'

Table 2. Loan Nouns Used as Stimili in the Experiment

The given incomplete sentences were in the past tense. Each sentence had one predicate in the third-person singular past tense and another one being omitted, with the corresponding Subject also in the third-person singular, e.g., *Kak tol'ko on našel* (1st predicate) *adres biznes-centra, on srazu že_____(*2nd predicate*) na vstreču* 'As soon as he found the address of the business center, he_____to the meeting'. The participants were asked to fill in the blank of the second predicate in each sentence with an appropriate verb derived from a new borrowed noun given noun. For each noun, there were two sentences with an elicited verb. Only two contexts were used throughout the whole experiment: the first context (henceforth: Context 1) was: *kak tol'ko on(a) _____, on(a) srazu že_____* 'as soon as s/he___, s/he immediately _____', the second context (henceforth: Context 2)was: *on(a) bystro _____, i potom_____* 's/he quickly___, and then _____'. Both contexts were designed to trigger the use of a perfective verb. Thirty-eight sentences were equally divided, and the first half were assigned a masculine Subject (*on* 'he), while the second half – a feminine Subject (*ona* 'she'). The verbs were

mostly matched with the gender of Subject based on semantics. For example, the sentence with an elicited perfective form of *konsilerit'* 'to apply/cover with concealer' was assigned a feminine Subject on the basis of the lexical meaning of the predicate, while the sentence with the form of *majnkraftit'* 'to play Minecraft' was assigned a masculine Subject. Such a distribution seemed appropriate, because Russian society is still characteristic of gender inequality and different gender roles.

Thus, there were a total of 38 target sentences (19 nouns, in two contexts apiece), not including **8** sentences with red herring nouns and **4** sentences that elicited imperfective verbs, which too were used as red herrings.

The nouns and sentences were given only in Russian, and were written in Cyrillic. The definitions for the stimuli nouns were not provided, except for several pictures illustrating them, but the participants were told to ask me to define the noun for them, in case the meaning is unclear.

There is always a risk when working with a large set of stimuli that the exposure to the preceding stimuli will affect the reactions to the following stimuli. To decrease the likelihood of such priming effects, the order of the sentences in the stimuli was randomized with the help of website randomlists.com. All the stimuli was entered into the 'Custom list randomizer' tool on the website 45 times (the maximal expected number of participants) to create 45 lists, each with random sentence order. The tests were printed on a paper handout to be distributed to participants. All the 45 handouts had the test items in different order. The test was administered on paper, so that the participants would give the verbal forms in writing and would not interfere with each other's results.

Prior to administering the experiment I completed the semantic tagging of all the unprefixed Impf forms and, comparing them with the list of prefix meanings (Table 1),

predicted which prefixes would be used to form each of the verbs. That process is described in details in chapter 6. Appendix 1 contains the version of the randomized test that was given to one of the participants.

3.3. Procedure

All the data used in the current study was collected by me during the period December, 17 2017 – December, 19 2017 in Nizhny Novgorod. The participants were tested in groups of three to five. Such a procedure was the most convenient for their language instructor, who let students leave the lesson for approximately 15 minutes to participate in the experiment. Since the task was presented on paper and they were asked to write down their answers, they did not interfere with each other's replies.

The experiment was conducted in relatively formal settings, in an empty classroom in one of the university halls. The procedure for each group was structured as follows: first, the subjects were orally asked by me to provide written answers to the short biographical section questions, and then were given instructions. They were assured that the confidentiality of their information would be guaranteed. They were then asked to use each given noun to produce a verb to fill in the blank in each sentence that would match the context and keep the resulting sentence. During the instruction phase, before performing the task, participants were orally presented three illustrative examples of the nouns and the sentences with verbs derived from a given noun. Those three examples appear before to the test itself in Appendix 1. Special emphasis was put on the fact that only a single verb, not a phrase, was expected from them. They were not instructed to produce the verb in any particular grammatical form or to incorporate a prefix in the

resultant item. The participants were not told what the purpose of the experiment was until after each participant completed the experiment.

Each subject was given an individual handout with a list of nouns and sentences. The order of items was randomized for each of them. The participants were under time pressure to complete the task because of their restrictive class schedule, so they were told to write down the first verb form that came to mind.

Before leaving the room, the participants were asked to give me their contact information (Skype or email address) in case I would later need clarifications from them for my analysis. I asked them to do that only if they were willing to. Seventeen out of the thirty-seven students provided their contacts.

3.4 Results

Of the 37 respondents, three did not complete the written biographical information section; this may have been either because of the imposed time constraint or because of personal preference. When asked in writing on the questionnaire if they were bilingual (if they considered more than one language to be native for them), none of the respondents replied affirmatively. They were all advanced speakers of English, but had been taught by non-native speakers, i.e., everyone answered negative to the question if they had been taught by a native speaker of target language. None of the participants spoke a foreign language in naturalistic settings on an everyday basis.

Some of the respondents replied rather erratically to the place of birth section of the biographical information; only 26 provided this information, and two of those simply stated "Russia".

The collected data was copied into an Excel Spreadsheet for further analysis. Out

of all the data, twelve answers were not provided. These were spread across different students and stimuli nouns, there were no repeats in the missing data, and thus, I did not look for any tendencies here. All the twelve sentences with missing verbs were among the five last sentences on the given variant of the test, which suggests that they were in a rush to get back to class, or simply tired of the test. No correlation between the demographic variables and the linguistics choices of the participants was found.

As a result of the experiment, 1,406 perfective verb tokens (tokens for Context 1 and Context 2 for each Impf unprefixed form) were collected, out of 1,418 maximum expected. Out of these, two were Imperfective and non-prefixed (*mainkraftil* 'played Minecraft' and *džipiesil* 'went in the direction provided by GPS'), and so were excluded from analysis, leaving 1,404 prefixed perfective novel verbs to be analyzed.

The perfectives formed from the four red herrings nouns (*torrent* 'torrent', *instagram* 'Instagram', *piar* 'PR', *skajp* 'Skype') were considered as control verbs for both contexts during the analysis, since such verbs have already been attested in the language. The results were very homogeneous compared to the novel verbs. All four verbs demonstrated almost zero prefix variation, having taken only one prefix in the formation of the perfective, e.g., the prefix *za-* was used with *instagramit'* 'to post on Instagram' and *po-* was used with *skajpit'* 'to communicate via Skype' by all 37 subjects in both contexts. For *torrentit'* 'to download from torrent', the prevalent prefix was *za-*, with only eight instances of *s-* (*storentil*) for both contexts. As for *piarit'* 'to promote using PR techniques', the prefix *pro-* was dominant, with six instances of using the form *raspiaril* in two contexts. All the produced perfectives formed from the control verbs have been found as already existing through Yandex search.

The vast majority of the verbs in the data were formed from the noun with the

help of the verb category suffix -*i*-. Such results are expected based on the phonological characteristics of the stimuli nouns stems, namely the vast majority of them having a coronal consonant as a final sound with only *vandrajv* ending in a labial and none ending in a velar. According to Kapatsinski (2005), the suffix –*i*- is the most productive stem extension in the formation of verbs from borrowed English nouns and is most likely to occur after coronal-final and labial-final nominal roots (Kapatsinski, 2005; Kapatsinski, 2008: 279).

Eight out of 1,406 verbs were formed with the suffix –*nu*- in the semelfective meaning (e.g., *za-vandrajv-nu-l-a* 'PRF-OneDrive-SEM.VC-PST-FEM.SG, have uploaded to OneDrive', *pro-ekstrašot-nu-l-a* 'PRF.THROUGH-extra.shot-SEM.VC-PST-FEM.SG, have added an extra shot'). Only three out of those eight verbs were formed without a prefix, using only suffix -*nu*- to perfectivize the verb: *džipiesilnul* 'GPS-SEM.PRF.VC-PST.MASC.SG, have got somewhere using the GPS', *vandrajv-nu-l-a* 'OneDrive-SEM.PRF.VC-PST-FEM.SG, have uploaded to OneDrive', *pro-ekstrašot-nu-l-a* 'extra.shot-SEM.PRF.VC-PST-FEM.SG, have added an extra shot to a drink'). None of the verbs were formed from nouns with the –*ova*- verb category suffix, i.e., such forms as **parkurovat'* or **xajlajterovat'* were not attested.

As for the prefixes used to form perfectives, prefix variation was attested and differed across the speaker population. Different tendencies for using particular prefixes were also observed. The results are described and discussed in following chapters. The quantitative results of the experiment (amount of each individual verb form provided for each sentence and the number of times each prefix was used with a given verb) can be found in Appendix 2. Apart from the quantitative data regarding prefixes and verbs, I also used semantic and discourse information provided by the context of the verb in the

semantic profiling, making sure that the predicted meanings of prefixes do not contradict the context.

3.5. Post-test interview

After preliminarily analyzing the data, I requested clarifications of the usage and meanings of certain items from individual participants whose contact information I had, since different native speakers of the same language often attend to different cues in input, and as a result end up having individual grammars. Such individual differences may be attributed to dissimilarities in cognitive abilities and linguistic experience (Dabrowska, 2018: 233). The answers of some participants could have been motivated by their individual interpretations of the stimuli, that I would not have been able to guess on my own. I emailed all 17 of them; eight of them did not respond, six replied but indicated their inability (lack of time, travels, exam, etc.) to talk to me, and three answered my questions over Skype. I asked those three what they meant by using the certain verbs in certain sentences, or asked them to give a definition of the verb that they have come up with. I asked for the definitions of all 37 forms they had produced, and during the analysis stage I used their comments on the perfective verbs where discrepancies with the predictions were found. The clarifications that were relevant to the analysis are provided in Chapter 6.

CHAPTER IV

ANALYSIS OF PREFIX VARIATION

4.1. Prefixes Involved in Variation

This chapter will argue that despite a few differences, prefixes in CSR and novel

verbs appear to behave fairly similarly when it comes to which other prefixes they can be

alternating[23] with. Where novel verbs and CSR verbs appear to behave radically

differently, however, is in how extensive and frequent the prefix variation is.

Janda and Ljaševskaja's 2011 article on prefix variation in CSR based on the data

from the Exploring Emptiness database includes in-depth tables of prefix variation, charts

of the distribution of prefix variation, and the prefix combinations on which they drew

their conclusions. This chapter and chapter 5 present a similar analysis of own databases

of Russian novel verbs, with comparison to the results and analysis in Janda and

Ljaševskaja (2011).

As mentioned above in Chapter 3, while examining the behavior of individual

prefixes based on the data in the Exploring Emptiness database, Janda and Ljaševskaja

(2011) found that *po-* and *za-* combined with all other prefixes. A general tendency they

observed were that prefixes that are more frequently involved in the formation of

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[23] Janda and Ljaševskaja (2011) used the term "prefix combinations" to describe the choice of prefixes used with verbs that engage in prefix variation. Thus, for example, *marat'* 'to soil', cited previously, selects the prefix combination [*vy-*]/[*za-*]/[*iz-*]/[*na-*], since it can forms perfectives with each of those prefixes, while *gruzit'* 'to load' selects the prefix combination [*za-*]/[*na-*]/[*po-*], and *vjaznut'* 'to get stuck' selects the prefix combination [*za-*]/[*u-*], etc. In this thesis, I am using the term "prefix alternations" instead.

perfective verbs (i.e., have higher token frequency[24]) are more likely to be attested in prefix variation also (i.e., have higher type frequency[25]), both in terms of the number of simple Impf verbs that use the prefix, and the number of other prefixes that are found alternating with them. In other words, frequent prefixes are more frequently attested in prefix variation and tend to alternate with a greater number of other prefixes.

This tendency is shown in Table 3, which gives the total number of perfectives in the second column, presented in descending order. Overall, the more frequently a given prefix forms perfectives with a given novel verb, the more frequently other perfectivizing prefixes are found with that verb. There is a near-total correlation between how often a prefix produces perfectives and how often they are attested in prefix variation. For instance, the most frequent prefix used by the participants, *za-*, was employed to form novel perfective verbs from the most nouns, 17 out of 19 (see Table 3). This prefix alternated with all the other nine prefixes attested in the data (see Table 4). There are some exceptions, however. For example, *do-* is found in prefix variation more often than *po- (do-* alternates with other prefixes to form perfectives from eleven Impf verbs, while *po-* is found with ten*)*, although *po-* is slightly more frequent (*po-* is used to form a Pf verb 180 times, while *do-* is used 169 times). Another exception is that *pri-* occurs in very little prefix variation compared to its overall frequency in CSR according to Janda and Ljaševskaja (2011). In other words, *pri-* rarely alternates with other prefixes to form perfectives from the same imperfective verbs (is involved in prefix variation with only one Impf verb, *uberit'* 'to get somewhere in an Uber cab', in the novel data) in spite of

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[24] Token frequency – frequency of the pattern in a corpus, the sum of the frequencies of the words exemplifying the pattern (Kapatsinski, 2018: 8).
[25] Type frequency – frequency of a pattern in a dictionary, the number of words obeying the pattern (Kapatsinski, 2018:8).

being used by participants comparatively often (used 41 times). And most prominently, the prefix found to be very prevalent by Janda and Ljaševskaja (2011), *po-*, occurred less often than *za-*, and has been used almost three times less (616 times for *za-* vs. 180 times for *po-*), which is quite significant. Their prediction regarding *po-* becoming the default perfectivizer in CSR is not reflected in my data for novel verbs. It is still to be determined, however, whether one can assume that *za-* is becoming the default perfectivizer for both CSR and novel verbs. According to Pinker and Prince (1988), in some languages there are inflectional domains that utilize a default operation over the least specified contexts. They also claim the default morpheme is most productive with nonce words and the least sensitive to similarity relations between the stimulus and already existing words. It is still to be determined, however, whether one can assume that *za-* is becoming the default perfectivizer for both CSR and novel verbs, and whether the concept of the default mechanism is valid in general, especially, in the light of the number of studies finding no evidence of default being present in language learning and production, e.g., Dabrowska (2001) concluded that there is no default-like mechanism in the acquisition of the Genitive case in Polish.

However, we can already see that *za-* is the only prefix to form perfectives from Impf forms that show no prefix variation at all, i.e., base forms that occur in our data with only one prefix: all 37 participants used *za-* to form a Perfective verb from the nouns *densxoll* 'dancehall (style of dance)' and *xotspot* 'hotspot' in both Context 1[26] and Context 2[27], and from *vičat* 'WeChat' in Context 2. In other words, *za-* was used for

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[26] *Kak tol'ko on(a)_____, on(a) srazu že_____* 'as soon as s/he
_____, s/he immediately_____'.
[27] *On(a) bystro_____, i potom_____* 's/he quickly_____, and
then_____'.

perfectivizing the verbs that apparently did not tolerate other prefixes in the given

context.

Prefix	Token frequency: total number of perfectives in the data formed with that prefix	Type frequency: number of Impf verbs that used that prefix to form perfectives (out of 19 verbs total)
za-	616	17
pro-	194	13
po-	180	10
do-	169	11
ot-	108	8
pere-	51	3
pri-	41	1
na-	21	3
pod-	5	1
o(b)-	1	1

Table 3. Quantitative Characteristics of the Prefix Variation in Novel Verbs.

Looking at the list of each unique instance of a prefixed perfective in the answers

of my participants, and counting which other prefixes each individual prefix alternated

with, I arrived at the following table of prefix variation as seen from the perspective of

each individual prefix:

Prefix	Alternates with	Amount of prefixes alternating with in novel data	Amount of prefixes alternating with in CSR (based on J&L, 2011)
do-	*[za-] [na-] [ot-] [pere-] [po-] [pod-] [pri-] [pro-]*	8	N/A
za-	*[do-] [na-] [o(b)-] [ot-] [pere-] [po-] [pod-] [pri-] [pro-]*	9	8
na-	*[do-] [za-] [ot-] [po-] [pod-] [pro-]*	6	6

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o(b)-	*[za-] [ot-] [pro-]*	3	7
ot-	*[do-] [za-] [na-] [o(b)-] [pere-] [po-] [pod-] [pro-]*	8	5
pere-	*[do-] [za-] [ot-] [pro-]*	4	3
po-	*[do-] [za-] [na-] [ot-] [po-] [pod-] [pri-] [pro-]*	8	8
pod-	*[do-] [za-] [na-] [ot-] [po-]*	5	3
pri-	*[do-] [za-] [po-] [pro-]*	4	6
pro-	*[do-] [za-] [na-] [o(b)-] [ot-] [pere-] [po-] [pri-]*	8	6

Table 4. Prefix Variation in Novel Verbs from the Perspective of Individual Prefixes (Type Frequency)

If we look at the numbers on the right in Table 4, we see that the overall picture is one of a fairly high degree of correlation between prefix alternations in Contemporary Standard Russian and in the novel verbs formed by the participants. For instance, both prefixes *na-* and *po-* alternate with the same amount of other prefixes in CSR and novel data (six and eight respectively). There are, however, some differences when we look at possible alternating prefix combinations. *Ot-*, which in CSR seems somewhat resistant to prefix variation, and alternates with only five other prefixes in Janda and Ljaševskaja's database, is more flexible with novel verbs, alternating with eight different prefixes (all, except *pri-*). Other prefixes that demonstrate more flexibility in alternation in novel verbs than in CSR are *pod-* (alternates with six prefixes in novel data compared to four in CSR) and *pro-* (alternates with eight prefixes in novel verbs, while only with six in CSR). There is no data for the prefix *do-* for CSR, which is not listed among the perfectivizing prefixes analyzed by Janda and Ljaševskaja (2011), but demonstrates high token and type frequency in the novel verbs.

There are also prefixes that demonstrate the opposite trend, showing lower prefix variation in novel data in comparison with CSR. The prefix that stands out is *o(b)-*, which alternates with fewer prefixes in the novel data than in Janda and Ljaševskaja's CSR results: only with *za-, ot-,* and *pro-* in the novel verbs, versus seven prefixes in Janda and Ljaševskaja's study (*na-, pere-, po-, pri-* in addition to *za-, ot-*, and *pro-*). This discrepancy may be explained by the relatively small database that I could assemble as a result of interviews and the contexts used as stimuli. Alternatively, it might indicate that the prefix *o(b)-* is going out of use and becoming unproductive. That question is discussed more in Chapter 6. There is also *pri-* that alternates only with four prefixes in new data compared to six prefixes in CSR.

As there are total ten prefixes used by participants in our data, mathematically there are 45 possible binary combinations of prefixes that can alternate with each other. Binary combinations of alternating prefixes occur not only in isolation, but also in the context of larger combinations (e.g., *za-* and *po-* can alternate only with each other (in isolation), as is the case with the Impf *krossfitit'* 'to do crossfit', but can also be a part of the bigger combination, where *za-* alternates with *po-* and with *do-*, as is the case for *iksboksit'* 'to play Xbox'). Thus, my list of possible alternating prefixes is essentially a list of binary combinations of alternating prefixes. That is, the figures in Table 4 and Table 5, for both CSR and novel verbs, represent an aggregate of the instances where binary combinations occur in isolation and those where they occur within larger alternating prefix combinations.

	Do-	Za-	Na-	O-	Ot-	Pere-	Po-	Pod-	Pri-	Pro-
Za-	dark green									
Na-	dark green	light green								
O-	pink	light green	dark red							
Ot-	dark green	light green	light green	light green						
Pere-	dark green	light green	pink	dark red	dark green					
Po-	dark green	light green	light green	dark red	light green	dark red				
Pod-	dark green	light green	dark green	pink	dark green	pink	light green			
Pri-	dark green	light green	dark red	dark red	dark red	pink	light green	dark red		
Pro-	dark green	light green	light green	light green	light green	dark green	light green	pink	light green	

Color coding:		
	light green	Alternation attested in both my database and in CSR
	pink	Alternation attested neither in my database nor in CSR
	dark green	Alternation attested in my database but not in CSR
	dark red	Alternation not attested in my database, but attested in CSR

Table 5. Possible Alternations of Prefixes for CSR (based on J&L 2011) and Novel
Verbs

Table 5 highlights, for each of the possible alternations, where there is

correspondence and where there are discrepancies in the data on verbs in CSR and the

data on novel verbs. Worth noting here is while my database consists of a mere nineteen

novel verbs formed from loan nouns, the nearly twenty times larger Exploring Emptiness

database includes a total of 386 of CSR verbs that display alternating prefix variation.

This suggests that if the database for this study consisted of more verbs, more prefix alternations would be found. In other words, not all alternations that are possible for novel verbs occurred in the data. This is of course not ideal and as a result I can only confidently comment on the alternations that were found in my set of verbs and that are not present in CSR, while I can only speculate on why some tendencies are attested in CSR that cannot be found in my database. It could be because this study does not have a large database, or because novel verbs behave differently from established CSR verbs.

Nevertheless, in Table 5, the two lighter colors, which represent agreement between the databases for CSR and novel verbs, are more prominent, and the darker colors, which represent a conflict in the data for CSR and novel verbs, are for the most part concentrated in two or three prefixes (this is without taking into account the results for the prefix *do-*, which is not listed among the perfectivizing prefixes analyzed by Janda and Ljaševskaja (2011), but which was employed by the participants of my experiment quite frequently (169 times in total) and in alternation with eight out of nine other prefixes).

Some discrepancies are also found for the prefix *pri-*. This prefix in CSR is alternating with four other prefixes, while these alternations are not attested in the data for this study. In fact, *pri-* was used to form Pf verbs from only one out of the nineteen loan nouns, *uber* 'Uber (cab)', although in both Context 1 and Context 2 and total 41 times. This can be explained by the prototype meaning of the prefix *pri-*, which is ARRIVE (Janda et al., 2013: 52), resulting in the logical use of the morpheme to form perfectives of the motion verbs (motion verbs imply the meaning of arriving or departing). Among all the nouns in the stimuli, *uber*, which denotes a means of transport, is the most suitable candidate to form a perfective referring to a movement. The nouns *parkur* and *segvej* also

refer to movements, but *pri-* is not used to form perfectives from them. Here Vendlerian

Aktionsart classes might be essential: ARRIVE implies a certain end point, so the verb

formed with this prefix should be an Accomplishment from that point of view. The verbs

formed from *segwej* and *parkur* denote not the most common types of movements

(walking or driving a car is more common that riding Segway or parcouring), and are

most likely to be as perceived as (inherently Impf) Activities and are atelic, because the

speaker would concentrate more on the unusual movement itself, not as much on the

destination point. At the same time, *priuberit'* denotes the usual action of moving in a

cab, and is more likely to have an inherent endpoint and be an Accomplishment.

The prefix *za-* in the data is the only one that behaves identically to its counterpart

in CSR, as indicated by the light green cells in the prefix column in Table 5.

Another prefix that behaves similarly in novel verbs and CSR verbs is *pro-*.

Despite not being as frequent as *za-* in the data (see Table 3), *pro-* has expanded its

ability to alternate with other prefixes in novel verbs: there are two instances of

alternations found in the data that are absent in CSR (*pro-* alternating with *do-* and with

pere-), and zero alternations that would be attested in CSR and not found now.
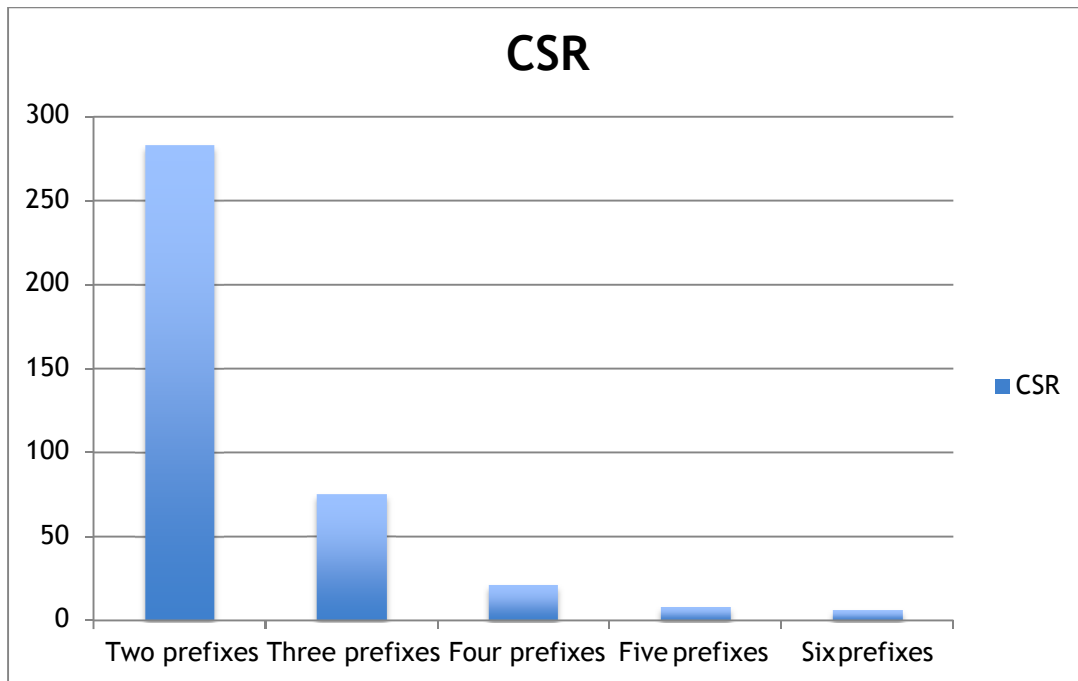
Figure 1. Distribution of Prefix Alternations in CSR (based on the data in Janda and Ljaševskaja, 2011)

Figure 1 and Figure 2 illustrate the distribution of prefix alternations in CSR and novel verbs. As Figure 2 below demonstrates, a substantial portion of instances of alternations involves three or four prefixes. Groups of three or four alternating prefixes are more frequent than pairs in the novel data, while in CSR (Figure 1) instances of alternation between only two prefixes are more frequent. This would indicate that prefix variation is more frequent in newly formed verbs than it is in CSR verbs. It most likely indicates uncertainty by speakers, because of the absence of a norm. Speakers are restricted for CSR verbs to those prefixes they have seen or heard used with the verb, while there are no restrictions for novel verbs yet. There is also a possibility of such a result being caused by the limits of the elicitation contexts compared to real contexts.
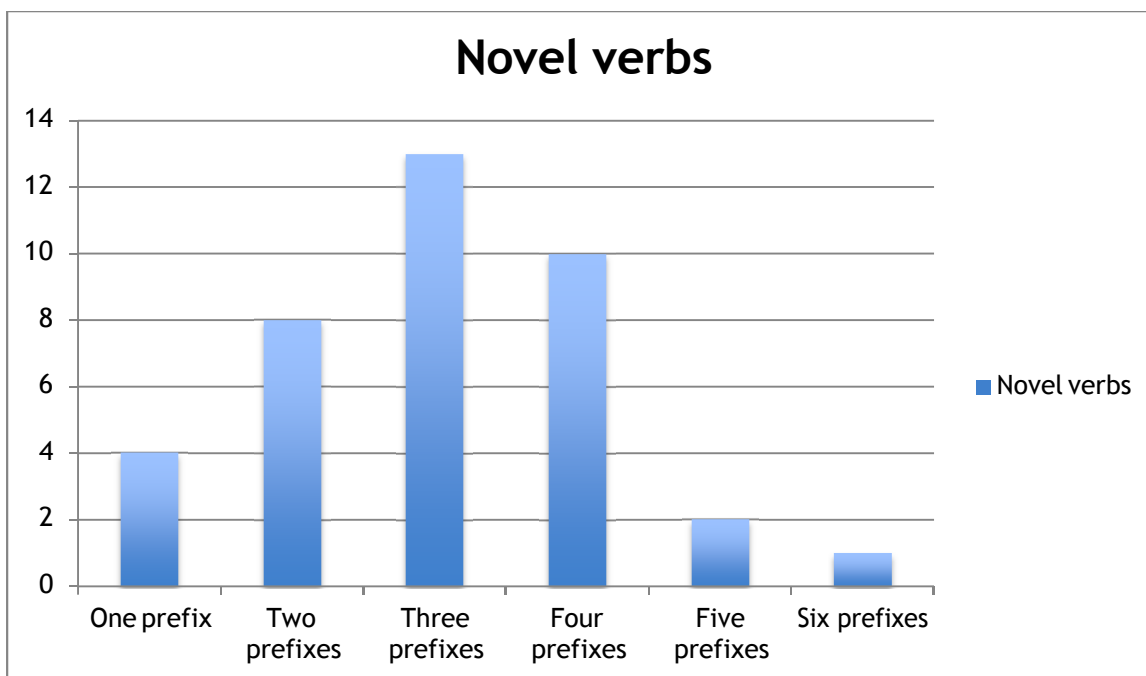
Figure 2: Distribution of Prefix Alternations in Novel Verbs

4.2. Dominance of *za-*: Possible reasons and implications.

Table 3 above illustrates in raw numbers how often each prefix combines with verbs to form perfectives in our data. As noted earlier, *za-* has the lead, being attested in most of the verbs in the database. Below I will address more detailed exploration of the most productive and frequent prefix in this study, which may provide valuable insights on the topic. In Janda and Ljaševskaja's study of CSR verbs, the picture is quite different. There, *za-* is more "middle-ground", with *po-*, and to a certain extent *s-*, being clear leaders, with the former producing nearly twice as many perfectives as *za-*. In the group of novel verbs, all but two Impf verbs combines with *za-* to form a perfective verb: *parkurit'* 'to move employing parcour technique' and *bodibarit'* 'to exercise with a body bar', which describe Activities in Vendler's terms, i.e., actions without any logical conclusion. It is also the case with verbs that take *za-* rarely, such as *segvejit'* 'to ride a Segwej' that was used with *za-* only once.

Evidence has been given in Table 3 and Table 4 showing that *za-* appears to be dominant in forming novel Pf verbs. In order to explore the reasons for this apparent dominance of *za-*, I will look in more details at the semantic characteristics of the prefix. *Za-* is characterized by several different features: it can focus on the finishing of an action, producing resultatives, as in *rezat'*-Impf 'to be cutting' – *zarezat'*-Pf 'to have cut', while at the same time being one of the most popular means of forming inchoative verbs, that point to the beginning of an action (*zatoskovat'* 'to start to miss'; see Sokolova 2009).

As Sokolova argues in her 2009 article, the productivity of *za-* appears to be connected with two of its subvalues: 1) the idea of crossing a boundary, entailing the concepts of CHANGE TO A FIXED STATE (*zaspirtovat'* 'to preserve in alcohol') and BEGIN (*zagovorit'* 'to begin speaking'), and 2) subvalues that correspond to the semantic values COVER (*zasypat'* 'to cover by strewing') and EXCESS (*zakormit'* 'to overfeed'). The first set of subvalues explains how *za-* can function as an inchoative prefix. The second set, which is more relevant to this study, is limited to transitive verbs, and focuses less on the actual object itself, and more on the impact on an object. This harmonizes well with the completeness encoded in the perfective aspect.

Sokolova (2009) gives a lot of examples of expansion of *za-* in professional jargon and slang, where forms such as slang *zacenit'*-Pf 'to appreciate' is used much more often, instead of the expected *ocenit'*, and the verb of professional jargon *zailustrirovat'*-Pf 'to illustrate' instead of *proillustrirovat'*. She assumes that the prefix *za-* overtakes the more traditional derivational paradigms by replacing another prefixes. The dominance of *za-* in the database can most likely be seen as a part of the same process. As the novel verbs from this study have not been incorporated at this time into

the Russian language, they are probably indicative of what is taking place at the forefront of loanword adaptation process.

I am inclined to attribute *za-*'s productivity to its semantic regularity. It has ten semantic meanings (Table 1) that are all widely spread in terms of both token and type frequency. It is not about an increasing productivity of one specific meaning of *za-*, but rather a range of meanings (fixation, inchoative, excess, etc.) that all seem to be employed systematically to new verbal formations. In a sense, *za-*'s extended polysemy, despite its complexity, demonstrates high resilience and a broadening of applicable contexts, which may be indicative of its increasing grammaticalization[28]. And although the contemporary system of aspectual marking does not categorically rely on any one prefix as a default marker of perfectivity, unlike the significantly more regular imperfectivizing suffix *-ivaj/-yvaj* or the semelfactive perfectivizing suffix *-nu*, a number of prefixes appear to be competing for the title of the most lexically neutral marker of perfective aspect, as a part of what can be the grammaticalization vector in the development of the Russian aspect.

The implications of the dominance of *-za* in the data are not obvious. Support for the diachronic change can be found by looking more closely at the differences in our data. Janda and Ljaševskaja (2011), who concluded that *po-* is becoming the default perfectivizing prefix, looked at examples from the RNC, which mostly contain well-established prefixed verbs. It is possible that the findings of these researchers are more descriptive of processes that are somewhat older, while the prefix use with novel verbs in

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[28] Grammaticalization is the process whereby lexical items and constructions come in certain linguistic contexts to serve grammatical functions, and, once grammaticalized, continue to develop new grammatical functions (Hopper & Traugott, 2003: 3).

this study is indicative of newer processes occurring for the first time now, in recent years. If so, this study might indicate that *za-* is now taking over as the default perfectivizing prefix, the role that was earlier played by *po-*. More data needs to be gathered, however, to draw any definite conclusions about this.

The dominance of *za-* may continue spreading only within the realm of slang and novel verbs, without expanding to standard language. As discussed above and shown in Sokolova (2009), the use of *za-* is characteristic of slang and professional jargon. It might, therefore, be the case that *za-* may be particularly productive in these, and that this tendency might continue without spreading to other layers of the language. The question of whether or not this dominance of *za-* is the beginning of a tendency that will take over in the future is, therefore, an open one.

The two assumptions described above, i.e., that the dominance of *za-* is a diachronic change and that the dominance of *za-* is a socio-cultural factor, do not necessarily contradict each other. It could be that the dominance of *za-* is a 21st-century phenomenon that will remain limited to slang verbs. Further exploration of these hypotheses is warranted.

In this chapter I have examined prefixes that are involved in prefix variation. As shown above, there is a fairly large degree of correlation in the occurrence of specific prefixes in alternation with other specific prefixes in the CSR and novel verbs. A reason for this, which will be explored more thoroughly in the next chapter, may be the fact, as noted above, that different speakers interpret novel verbs somewhat differently from each other. It can be seen that alternations involve more prefixes in novel verbs, as well appear in novel data more frequently than in CSR. This all points in the direction of prefix variation being a more frequent phenomenon.

CHAPTER V

ANALYSIS OF PREFIX VARIATION ON THE VERB LEVEL

In previous work, Janda & Ljaševskaja (2011) used data from the Exploring

Emptiness Database to carry out their analysis of prefix variation in CSR, finding that

1,040 attested CSR verbs (73% of 1,429 analyzed Impf verbs) form perfectives with only

one prefix, whereas 386 verbs select between two to six prefixes to form perfective

partners. They also find that all sixteen verbal prefixes that they analyzed in their data

occur in at least three of the 386 verbs that show prefix variation, and that all sixteen

prefixes alternate with at least five other prefixes.

In other words, 27% (386 out of 1,429 unprefixed Impf verbs they analyzed) of

the analyzed CSR verbs take alternating prefixes to form perfectives via prefixation, and

sixteen prefixes do to a certain extent engage in prefix variation. Janda & Ljaševskaja

(2011) found that of the 386 verbs that display prefix variation, 283 can take one of the

two alternating prefixes, whereas the remaining 103 can take one of the three or more.

Among the 27% of the Impf verbs that can take more than one prefix, those with a choice

of only two or three prefixes are by far the most frequent. This was shown in Figure 1.

In many cases, the different Pf forms of the same Impf verb can be used

interchangeably. In CSR, the verb *nemet'* 'to grow numb', for instance, takes either

prefix *za-* or *o(b)-* to produce perfectives that in many contexts display free variation,

with few exceptions, as shown in examples (1) and (2):

(1) Ruk-a   za-neme-l-a

   hand-FEM.NOM.SG   PFV.change_to_a_fixed_state-numb-VC-PST-FEM.SG

'I can't move my hand.'

(2) On   o-nem-e-l   ot   strax-a

   He   PFV.acquire_a_new_feature-numb-VC-PST.MASC.SG from fear-MASC.GEN.SG

'He became frozen with fear.'

The prefix *za-* here indicates a physical inability to move, whereas *o(b)-* refers to a psychological state with a physical dimension.

By examining the corresponding data for the verbs in this study, we see a radically different picture. As Table 6 shows, the database contains only four verbs, perfectives formed from *xotspot* 'hotspot' in Context 1 and Context 2, from *densxoll* 'dancehall (style of dance)' in Context 1, and from *vičat* 'WeChat' in Context 2, that occur in the Pf only with the prefix *za-*. These verbs are therefore analogous to the 1040 (73%) of Impf verbs in the Exploring Emptiness database that only have one prefixed aspectual partner. The remaining 34 verbs in the database, or 89%, do display prefix variation.

Combines with (No. of prefixes)	CSR (No. of verbs)	Novel (No. of verbs)
1	1040	4
2	283	8
3	75	13
4	21	10
5	4	2
6	3	1

Table 6. Verbs Demonstrating Prefix Variation in CSR and Novel Data: Raw Numbers (Type Frequency)

The data illustrates that verbs taking alternating prefixes to form perfectives are

more common in novel verbs than in CSR verbs, since 73% of CSR verbs (1,040 out of 1,429 analyzed Impfs) take 1 prefix and 27% of CSR verbs take one of the two or more alternating ones (386 out of 1,429), compared to only 11% of novel verbs (4 out of 38) that take only one prefix and 89% (34 out of 38) take one of the two or more alternating ones. In CSR, there is a clear drop in the number of verbs from each category to the next, and only a tiny minority of verbs can take any one of five or six separate prefixes. In novel verbs, the picture is quite different: verbs that alternate between three or four prefixes make up the two largest categories, and they only account for a little more than half the verbs, while in CSR 73% which is more than half of all analyzed verbs can take only one prefix to form perfectives.

I also compared novel verbs only with the CSR verbs having the same token frequency, i.e., have 37 found instances of use in Janda and Ljaševskaja's (2011) database. Out of 1,981 studied verbs, there are six whose perfectives are attested 37 times. Among them, one verb (16.6%) takes one of the four alternating prefixes (*tuxnut'* 'to become rotten' with perfectives formed by adding prefixes *za-, po-, pro-*, or *s-*), two verbs (33.3%) take one of the two alternating prefixes (*tasovat'* 'to shuffle' with *pere-* or *s-*, *loxmatit'* 'to tousle' with *raz-* or *vz-*), and remaining three (50%) do not show prefix variation.

There may be several explanations regarding the causes of the differences between CSR and novel verbs. One plausible reason for why prefix variation appears to be more prevalent in novel verbs can be found by looking to Janda and Ljaševskaja's (2011) Overlap Hypothesis, mentioned in previous chapters. As indicated earlier, according to this hypothesis, prefixes always carry semantic meaning and can produce perfectives only from those Impf verbs whose meaning overlaps with that of the prefix.

As novel verbs have yet to be incorporated into the standard language, they may have much vaguer semantics and may be used to refer to actions that are not yet very familiar to the general population. They will, therefore, take different perfective prefixes depending on how they have been interpreted by individual subjects in each individual context in which they occur.

Different subjects may also have drawn comparisons to different verbs in CSR that are similar semantically, thereby opting for different prefixes depending on which already existing verb they make analogies to. Examples of this are very numerous in the data. The prefixes *za-, ot-, pere-* are used to form perfectives from the noun *snepčat* 'Snapchat' in both Context 1 and Context 2. The subjects creating the prefixed form *zasnepčatila* (lit. 'Snapshott-PST.FEM.SG) may have done so by analogy to an already existing *zapostit'* 'to post on social media', whereas the speaker who produced *otsnepčatila* may have done so by analogy to the CSR verb *otpravit'* 'to send'. Similar to that, *peresnepčatila* was formed in analogy with *pereslat'* 'to (send) forward'. As a result, novel verbs combine with a greater variety of prefixes. The subject, when forming a new loan verb with a clear analogy in CSR, is less likely to form their own interpretation and, therefore, more predictable in their choice of prefix than they would be when uttering a novel verb with no such obvious analogy.

Sometimes, individual interpretation is related not only to the CSR counterpart verbs that, in a subject's minds, are the closest in meaning to the novel verb (without including the noun element). They can interpret the meaning of new verbs differently from the semantic point of view. As an example, the majority of the participants apparently interpreted the perfective formed from *krossfit* 'crossfit' as a verb denoting 'to do crossfit/ to practice crossfit', and thus used the prefix *po-* with the meaning SOME. On

the other hand, one participant revealed in the post-test interview that they understood the Pf of *krossfitit'* to meaning 'overcoming obstacles to finish the trim rail', which resulted in their usage of the prefix *za-* here (as I argue in Chapter 6, here the subject must have used the *za-* in the resultative meaning that the prefix is slowly starting to develop). This possibility supports the hypothesis that more prefix variation occurs in novel verbs because of their extended or underspecified semantics. Many examples of discrepancies in the lexical interpretation of same verbs by different participants are described and analyzed in Chapter 7.

If Janda and Ljaševskaja looked into the correlation between the prefixes and verbal semantics (Aktionsart in the general linguistics sense), the correlation between Vendlerian Aktionsarten specifically and prefix variation in Russian has not been extensively looked into before. Kučera (1983) provided limited information on that issue. In his classification, Atelic Events (included under Vendler's Activities) are verbs with prefixes *po-* in the meaning SOME and *pro-* in the meaning DURATION (p. 177*)*. Otherwise, he offers no predictions regarding prefix selection based on Vendler's lexical Aktionsart categories.

In order to see if there were any tendencies that would explain instances of prefix variation by classification of verbs to Vendler's semantic classes, I labeled all the sentences according to the class of the novel verb (see Appendix 3). To determine the category, I checked all the semantic meaning of Impf verbs for telicity and durativity (since all the produced verb forms in the database are perfective, they are all dynamic, and do not include States; therefore, there was no need to label verbs as dynamic or stative). Those that are telic and durative I labeled as Accomplishments, atelic and durative were labeled as Activities, and telic and punctual ones – as Achievements.

It is also worth saying that unfamiliarity with the exact characteristics and specifics of the actions that the novel verbs represent also has had an effect on my determining the correct Vendlerian class for each prefixed verb. For example, it is not clear whether *bitkojnit'* 'to convert money to Bitcoin' takes a long time (hence, being durative), or, alternatively, is punctual, being completed in seconds with one click of a mouse. The former interpretation, will give rise to an Accomplishment verb, while the latter will result in the Achievement. Such ambiguity is observed not only in novel verbs: according to Croft (2012), the verb does not inherently belong to a specific aspectual class, instead having a potential to be conceptualized or construed to different aspectual classes.

I then compared the Vendlerian Aktionsarten with the prefixes selected for each verb, looking at the frequency of each prefix in each verb class: for example, *po-* was the most frequently used prefix for perfective Activities in the data, which correlates to Kučera's findings. The total numbers of prefixes for each category were then compared. Accomplishments showed the largest variation, with ten possible prefixes. This can be explained by the fact that Accomplishments are a median between Activities and Achievements, being durative as Activities and Telic as Accomplishments at the same time: therefore, they are compatible with the prefixes that were separately attested for both Activities and Accomplishments. I also examined the variation in prefixes used with each verbal class. As an example, verbs that I classified as Achievements occurred with only four prefixes out of a total of ten prefixes in the novel data in the formation of their perfectives. That may be because Achievements are punctual (instantaneous), which excludes any prefixes with the meaning of duration. As for the variation inside individual combinations of alternating prefixes, at least three prefixes occur on one of the

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Accomplishment verbs (i.e., perfectives of *podkastit'* 'to upload to podcast' are

zapodkastila, otpodkastila, dopodkastila), and none of the verbs labeled as

Accomplishment takes just one prefix or one of the two. It probably indicates that

Accomplishments is the least consolidated class with bigger chances of ambiguous

readings for each verb).

Generally, all three verbal classes demonstrate variation in relation to the prefixes

used to produce their perfective forms. Such variety is mostly explained by the polysemy

of most aspectual prefixes: prefixes have different meanings, which allow them to be

used with verbs of different Vendler's classes. For instance, the THOROUGH meaning of

pro- which implies the presence of a certain process (which is done thoroughly), assigns

the prefixed verb to either the Activity or Accomplishment class, while the THROUGH

meaning of *pro-*, which puts more focus on the result or completion of an action, can

correspond to either an Accomplishment or an Achievement.

Other similar observations could be made on that issue, however, it will merely be

statistical data and information that could be possibly used in further research. The

analysis of the data from that point of view does not contribute to the accurate prediction

of the prefix usage, since the Vendlerian classes correlate with the meaning of the verb

roots, the meaning of the prefix added is moving the verb to a different class than the one

it is in without a prefix. That will, for example happen to Activity *parkurit'* 'to move

using parcour technique, when the prefix *do-* is added to it: it will be read as telic and

become an Accomplishment. There is also no evidence of any particular prefix being

more compatible with certain Vendlerian classes, as the distribution closely correlates

with the data in Table 3: *za-*, followed by *pro-* and *po-* are the most frequent for all

classes.

In summary, there is evidence of novel verbs displaying prefix variation to a much greater extent than do the verbs In CSR that are more restricted. Taking into account this fact, combined with the related tendency observed in the previous chapter, that prefix variation in novel verbs is more frequent, and incorporate more prefixes than it does in CSR, it can be concluded that prefix variation is more prevalent in at least the novel verbs used in this study than in CSR, at least based on the data analyzed by me and J&L (2011).

As set forth above, there is a twofold explanation for this. First, it appears that novel verbs, being less frequent and less consolidated items in Russian, offer the speaker uttering them greater opportunity for individual interpretation. According to the Overlap Hypothesis, the speaker will then choose the prefix that has the most semantic overlap with his individual interpretation of the verb, thereby resulting in different speakers opting for different prefixes depending on their respective interpretations. Secondly, there are often verbs in CSR that are similar in meaning to a specific novel verb, and the speaker is influenced by the comparisons to CSR in his choice of prefixes. In many instances, different speakers might draw analogies to different pre-existing verbs.

Even though the novel verbs that I have labeled Achievements in Vendler's terms display less prefix variation and show much more conformity to their CSR equivalents than the verbs I labeled Activities, and even less variation than the ones that I labeled as Accomplishments, the degree of variation all three classes show is still significant. As a result, the occurrence of certain prefixes in perfective forms could not be predicted perfectly based on the Vendlerian class that the unprefixed Impf verb belonged to.

CHAPTER VI

PREDICTION OF PREFIX SELECTION ON THE BASIS OF THE OVERLAP

HYPOTHESIS AND SEMANTIC PROFILING

This chapter tests Janda & Ljashevskaja's (2011) Overlap Hypothesis as a

predictor of the prefixes selected by the subjects, based on the semantic features of the

verbs. Section 6.1 discusses the assignment of the novel verbs in the data to semantic

classes, adopted from RNC (http://www.ruscorpora.ru/) and Levin's (1993) classification.

Section 6.2 looks at the prediction of which prefixes are used to form perfective forms for

each of the Impf verbs in the experiment. Section 6.3 of the chapter analyzes

discrepancies between these predictions and the actual results of the experiment, and

draw conclusions regarding the overall reliability of the Overlap Hypothesis for this

purpose[29].

The data was analyzed using semantic profiling, or the analysis of distribution of

semantic tags (Nesset, Endresen, Janda, 2011: 379). For this analysis I consulted the

RNC for the semantics tags it uses to classify verbs according to their approximate

definitions (Table 7).

Stimuli noun	Approximate definition of a perfective verb
bitcojn	To convert into bitcoin
podkast	To convert articles to podcast format, to upload to podcast channel
ekstra šot	To add extra shot
uandrajv	To upload to one drive
konsiler	To cover with/ apply concealer
xajlajter	To cover with/ apply highlighter

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[29] Janda and Ljaševskaja (2011) only tested the Overlap Hypothesis by comparing the semantic meanings of the verbs and the aspectual prefixes and finding overlaps between them. They did not explicitly claim that the overlap in meanings would help predict the prefixes used for perfectivization of new verbs.

xotspot	To connect to hotspot
vičat	To communicate via WeChat
netfliks	To watch something on Netflix
bodibar	To exercise with a body bar
parkur	to move around employing parcour technique
segwej	To ride a Segway
densxoll	To dance in the "dancehall" style
snepčat	To send via Snapchat
uber	To take an Uber to get somewhere
džipies	To use GPS in order to find direction somewhere and move in that direction
majnkraft	To play Minecraft
krossfit	To do crossfit exercise, to take up crossfit
iksbox	To play games on Xbox

Table 7. Approximate Definitions of the Impf Verbs in the Data

6.1. Semantic Tagging of Novel Verbs

Classification of the meanings of words is a complex issue. Fortunately, the RNC uses a system of semantic tags that represents the collective expertise of the Moscow Semantic School and is adapted from the "Lexicograph" database which was developed beginning from 1992 under the leadership of E. V. Padučeva and E. V. Raxilina at the Department of Linguistic Research at the All-Russian Institute of Scientific and Technical Information of the Russian Academy of Sciences (http://lexicograph.ruslang.ru). In principle, the tagging system was designed to be applied to all grammatical categories of words. RNC has 27 semantic tags, about half of which are connected to larger groups. For example, there are three tags labeled IMPACT: a generalized group labeled merely 'impact' (e.g., *vytirat'*-Pf 'to rub, wipe'), plus two more specialized sub-groups: IMPACT:CREATE ('creation of a physical object', such as *smasterit'*-Pf 'to craft, build') and IMPACT:DESTR ('destruction', as in *zarezat'*-Pf 'to slaughter') (http://www.ruscorpora.ru/en/corpora-sem.html.).

I used six semantic categories (CHANGEST, IMPACT, PERC, MOVE, PUT, CONTACT) from the RNC to tag my data, since none of the others (e.g. MENT 'mental sphere', SMELL 'smell', PSYCH 'psychological sphere', etc.) was relevant to my data and the context of the sentences used in the experiment. CHANGEST is described as 'change of state or feature' and is used to mark such verbs in the data as *bitcojnit'* 'to convert to bitcoin currency', *ekstrašotit'* 'to add an extra shot (to a drink)', etc. IMPACT, mentioned above, includes the verbs *konsilerit'* and *xajlajterit'* meaning 'to apply/cover with concealer/ highlighter', since they do not imply any change in the state or feature (as converting money to another currency in *bitcojnit'*). Semantically, these two categories (CHANGEST and IMPACT) are close to each other, resulting in some items being tagged with both of them: e.g., the verb *podkastit'* 'to convert to podcast format/upload to a podcast channel' falls under both categories: under CHANGEST because there is a change of the format, and under IMPACT:CREATE because the new podcast recording are being created. CHANGEST also overlaps with the category PUT, because any placement implies some change in the position or location. Examples of this is the verb *vandrajvit'* 'to upload to OneDrive', that implies the transfer of files from one location (e.g., desktop) to another (OneDrive cloud), and was tagged as PUT by analogy to the classifications for the verbs *sprjatat'* 'to hide' and *vložit'* 'to put inside' in the RNC that also both refer to changing of the location. The verb *xotspotit'(sja)* 'to connect to hotspot' was tagged with CONTACT, and the verb 'to watch on Netflix' is marked with PERC ('Perception'), by analogy with the classification for *smotret'* 'to watch' in the RNC.

The last RNC tag I used in my profiling is MOVE, which refers to any aspect or manner of movement, including, in the RNC, 'causing a movement' as in *brosit'* 'to throw', 'making movements in a specific manner' as in *dergat'sja* 'to jerk', 'movement

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in a certain direction' as in *bežat'* 'to run', etc. For that reason, I used this expanded category to cover 'to ride a segway', 'to send via snapchat', 'to move around employing parcour technique', etc. (see Table 2 for the full list of nouns). I also classified 'to exercise with a body bar' and 'to dance in dancehall style' as MOVE, because these activities imply physical movements.

Semantic tags were not assigned to all the verbs in the RNC, because there were no tags that correlated with the meanings of some verbs. Similarly, there were a number of items in my data that I could not tag by using only the RNC's tags. For instance, some regular Activity verbs in the RNC, including, such as Impf *igrat'* 'to play' and *rabotat'* 'to work', are not tagged for thematic class at all. The novel verbs *iksboksit'* 'to play games on Xbox' or *majnkraftit'* 'to play Minecarft' did not seem to refer to any specific physical movements and hence were not tagged with MOVE, nor did they produce any impact to be marked with CHANGEST or IMPACT. For that reason, I also relied on Levin's (1993) verb classification for English, which provided the basis for the classification of "Lexicograph" database. Levin provides 57 thematic classes, with each class containing several subclasses. Her system allowed me to come up with a more detailed semantic profile for some verbs, to fill in the missing tags in the RNC classification, to have a less generalized classification of MOVE verbs, and to increase the possibility of correct prefix predictions.

Some of the categories in the RNC and Levin's classification systems have same semantic meaning and can be completely cross-referenced (e.g., CHANGEST and "Verbs of Change of State"). IMPACT verbs, such as 'to cover with/apply highlighter', were classified as 'Verbs of Putting', using Levin's category, by analogy to 'to powder (cheeks, face)' (Levin, 1993: 120), which matched the RNC's PUT.

Some of the MOVE verbs, such as 'to exercise with a body bar' have been included also in Levin's category of "Verbs of Creation and Transformation", since it contains the subcategory "Verbs of Performance" that is lacking in the RNC tags. This is also the tag for *krossfitit'* 'to do crossfit', *majnkraftit'* 'to play Minecraft', and *iksboksit'* 'to play games on Xbox', which did not fall into any of the RNC categories. According to Levin (1993:179), all of these verbs take effected objects and do not allow the expression of a raw material argument. These verbs describe performances, and these performances are themselves the effected objects.

Levin also provides the "Verb of Motion" class with a plethora of subclasses, including "Verbs of Inherently Directed Motion", which express a specification of the direction in which the motion is occurring (e.g., *uberit'* 'to take an Uber to get somewhere'), "Verbs of Manner of Motion," describing the manner in which animate and inanimate entities can move (e.g., *parkurit'* 'to move around employing parcour technique'), "Verbs of Motion Using a Vehicle" (*segvejit'* 'to ride a Segway'), and "Waltz Verbs" that specifically include all the verbs with meaning 'to perform a dance' (*densxollit'* 'to dance using dancehall style').

6.2. Predicting Aspectual Prefixes for Novel Verbs

Then I looked into how these classifications (RNC's and Levin's) are distributed across the prefixes used by the participants to form perfective verbs. According to the Overlap Hypothesis (J& L 2011) there should be a relation between the prefixes and the distribution of semantic tags of the verbs. If this hypothesis is right, I would be able to predict the prefixes that are about to be used based on the semantics tags I assign to each verb in my stimuli.

Based on the assigned semantic classes, I attempted to predict which prefixes the subjects might most possibly use to create the novel verbs. I used the exhaustive list (see Table 1) of the Russian verbal prefixes and their semantic meanings, compared the meanings of the prefixes and the novel verbs, and tried to find the prefixes that could be cross-referenced with the tags assigned to the verbs in the stimuli in order to predict the prefixes that the subjects would use. For example, the verbs tagged as CHANGEST /"Verbs of Change of State" clearly matched with the CHANGE TO A FIXED STATE meaning of *za-*, the THOROUGH meaning of *pro-* (assuming that a thorough action will impact Patient), and the IMPOSE/ ACQUIRE A NEW FEATURE meaning of *o(b)-*. Similarly, for transitive verbs categorized as PUT/ "Verbs of Putting (on)" I would expect to get *na-* with the meaning SURFACE (application of something to a surface), *za-* with the COVER meaning, *u-* with the meaning COVER COMPLETELY, and *o(b)-* with the meaning AFFECT A SURFACE. The semantic tags assigned to all the verbs and all prefixes determined to be matching and, therefore, predicted to appear in combination with each other, can be found in Table 8.

Stimuli noun	Approximate definition of a perfective verb	Semantic tag(s) according to RNC classification	Semantic tag(s) according to Levin's classification	Prefixes, predicted to be used to form perfectives
bitcojn	To convert into bitcojn	CHANGEST	Verb of Change of State	*za-* (change to a fixed? state), *pro-* (thorough), *o(b)-* impose/ acquire a new feature
podkast	To convert articles to podcast format, to upload to podcast channel	CHANGEST; IMPACT:CREATE; PUT	Verb of Change of State; Verb of Creation and Transformation; Verb of Putting (on)	*za-* (change to a fix state), *o(b)-* impose/ acquire a new feature

Ekstra šot	To add extra shot	CHANGEST; PUT	Verb of Change of State; Verb of Putting (on)	*za-* (change to a fixed? state, fill), *pro-* (thorough, through), *o(b)-* impose/ acquire a new feature
vandrajv	To upload to OneDrive	CHANGEST; PUT	Verb of Putting (on); Verb of Change of State (to a lesser degree)	*za-* (change to a fix state), *o(b)-* impose/ acquire a new feature
konsiler	To cover with/ apply concealer	IMPACT; PUT	Verbs of Putting (on)	*za-* (cover, change to a fixed state), *na-* (surface), *pod-* (adjust) *o(b)-* (affect a surface)
xajlajter	To cover with/ apply highligter	IMPACT; PUT	Verbs of Putting (on)	*za-* (cover, change to a fix state), *na-* (surface), *pod-* (adjust) *o(b)-* (affect a surface)
xotspot	To connect to hotspot	CONTACT	Verb of Combining and Attaching	*za-* (attachment), *pod-* (approach), *pri-* (attach)
vičat	To communicate via weChat	CONTACT	Verb of Social Interaction; Verb of Communication	*za-* (attachment), *s-* (together)
netfliks	To watch soething on Netflix	PERC	Verb of Perception (Sight)	*po-* (result, some), *pro-*(through)
bodibar	To exercise with a bodybar	MOVE	Verbs of Creation and Transformation (Performance)	*po-* (some), *pro-* (duration),
parkur	to move around employing parcour technique	MOVE	Verbs of Creation and Transformation (Performance); Verbs of Motion (Inherently Directed Motion); Verbs of Motion (Manner of	*pro-* (duration, through) *pere-* (transfer)

			Motion)	
segwej	To ride a segway	MOVE	Verbs of Motion (Inherently Directed Motion); Verb of Motion (Motion Using a Vehicle)	*pere-* (transfer) *pro-* (through), *pri* – (arrive), *do-* (up to)
densxoll	To dance in the "dncehall" style	MOVE	Verbs of Creation and Transformation (Performance); Verb of Motion (Waltz Verb)	*po-* (some), *pro-* (duration)
snepčat	To send via snapchat	MOVE	Verb of Sending and Carrying	*pere-* (transfer), *ot-* (depart)
uber	To take an uber to get somewhere	MOVE	Verbs of Motion (Inherently Directed Motion); Verb of Motion (Motion Using a Vehicle)	*po-* (start), *pro-* (through, distance), *do-* (up to), *pri-* (arrive)
Džipies	To use GPS in order to find direction somewhere and move in that direction	MOVE	Verb of Motion (Motion Using a Vehicle); Verbs of Motion (Inherently Directed Motion);	*po-* (start), *pro-* (through, distance), *do-* (up to), *pri-* (arrive)
majnkraft	To play Minecraft		Verbs of Creation and Transformation (Performance)	*po-* (some), *pro-* (duration)
krossfit	To do crossfit exercise, to take up crossfit		Verbs of Creation and Transformation (Performance)	*po-* (some), *pro-* (duration)
iksbox	To play games on Xbox		Verbs of Creation and Transformation (Performance)	*po-* (some), *pro-* (duration)

Table 8. Semantic Tags of the Impf Novel Verbs With Predicted Prefixes

After the comparison of the semantic profiles of the verbs and the meanings of the

aspectual prefixes was complete, only 11 of the 20 verbal prefixes in Russian were

predicted for the data in the stimuli: *po-, pro-, do-, pri-, pere-, ot-, za-, s-, pod-, na-, o(b)*.

The other prefixes[30] did not have any overlap in semantic meaning with the data, based on the semantic tags assigned to verbs. For instance, the prefix *v(o)z-* with the meaning MOVE UP was not included because the data included no nouns that would form a verb denoting 'movement upward', similarly to the prefix *v-* with the meaning INTO, which typically occurs with verbs of motion, and was not included because there were no sentences with a context implying any movement into an entity.

Not all meanings of the prefixes that matched one or another verbal semantic class were included because they did not all complement the meaning of a particular verb. For example, the verbs *vandrajvit'* 'to upload to OneDrive' and *konsilerit'* 'to cover with/ apply concealer' are both tagged PUT, which goes along with meaning COVER of the prefix *za-*. However, OneDrive is a cloud storage that does not have a physical surface, so the COVER meaning of *za-* is not included for *vandrajvit'*. As for *konsilerit',* the idea of covering the skin with a cosmetic product fits perfectly.

For certain verbs, one of the expected prefixes correlated with all the tags the verb has, whereas for others, it correlated with only with one of them. For example, the verb *xajlajterit'* 'to cover with/apply highlighter' was categorized as PUT and IMPACT. While the prefix *na-* with the meaning SURFACE was predicted based on both of the semantic verbal classes, another prefix, *po-* with the meaning ADJUST, can be cross-referenced only with the meaning IMPACT. The semantic categories of other verbs had an even stronger effect on one another. The category CONTACT of the verb *xotspotit'sja* 'to connect to a hotspot' allows the prefix *pere-* with the meaning MIX. However, it was excluded from the list of predicted prefixes because the second class that the verb belonged to, "Verb of Combining and Attaching", implies fastening/gluing/tying one object to another, not

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[30] *v(o)-, v(o)z-, vy-, iz-, nad-, nedo-, pred-, raz-, u-.*

mixing them together or combining sporadically. These two cases demonstrate the importance of including two semantic classifications into this analysis.

The exclusion of some prefixes was motivated by the context of the sentence in the stimuli. The verb 'to move around employing parcour technique' could hypothetically be perfectivized with the prefix *o(b)-* with its prototypical meaning AROUND, because those movements might be performed in a circular trajectory (e.g., moving around a stadium). But the sentence that needed to be completed with a perfective verb form was about moving along the street. Since typically a street implies a straight line, the prefix *o(b)-* could not be used in that sentence context. Similarly, the verb 'to ride a Segway', being a verb of motion, can be formed with the prefix *ot-* DEPART, but the sentence it is used in did not mention the place of departure, only the destination. As a result, *pri-* ARRIVE would be predicted instead of *ot-*.

The Table 9 contains the predicted prefixes and the prefixes actually used by participants. The discrepancies between the prediction and actual result are highlighted in red.

Stimuli noun	Approximate definition of the perfective verb	Prefixes, predicted to be used to form perfectives	Prefixes used by the participants of the experiment
bitcojn	To convert into bitcojn	*za-* (change to a fix state), *pro-* (thorough), *o(b)-* impose/ acquire a new feature	*za-, pro-, ot-, o(b)-*
podkast	To convert articles to podcast format, to upload to podcast channel	*za-* (change to a fix state), *o(b)-* impose/ acquire a new feature	*za-, ot-, do-*
Ekstra šot	To add extra shot	*za-* (change to a fix state, fill),	*za-, pr-o*

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		pro- (thorough, through), *o(b)-* impose/ acquire a new feature	
uandrajv	To upload to one drive	*za-* (change to a fix state), *o(b)-* impose/ acquire a new feature	*za-, pro-, ot-*
konsiler	To cover with/ apply concealer	*za-* (cover, change to a fix state), *na-* (surface), *pod-* (adjust) *o(b)-* (affect a surface)	*za-, ot-, do-, po-, pod-, na-*
xajlajter	To cover with/ apply highligter	*za-* (cover, change to a fix state), *na-* (surface), *pod-* (adjust) *o(b)-* (affect a surface)	*za-, po-, za-, ot-, do-*
xotspot	To connect to hotspot	*za-* (attachment), *pod-* (approach), *pri-* (attach)	*Za-*
vičat	To communicate via weChat	*za-* (attachment), *s-* (together)	*za-, pro-, po- , na-*
netfliks	To watch soething on Netflix	*po-* (result, some), *pro-*(through)	*za-, pro-, do-, po-*
bodibar	To exercise with a bodybar	*po-* (some), *pro-* (duration),	*ot-, po*
parkur	to move around employing parcour technique	*pro-* (duration, through) *pere-* (transfer)	*pro, do-, pere-*
segwej	To ride a segway	*pere-* (transfer) *pro-* (through), *pri –* (arrive), *do-* (up to)	*za-, pro-, do-, pere-*
densxoll	To dance in the "dncehall" style	*po-* (some), *pro-* (duration)	*za-, pro-, po-*
snepčat	To send via snapchat	*pere-* (transfer), *ot-* (depart)	*za-, ot-, pere-*
uber	To take an uber to get somewhere	*po-* (start), *pro-* (through, distance), *do-* (up to),	*za-, pro-, do-, po-, pri-*

		pri- (arrive)	
Džipies	To use GPS in order to find direction somewhere and move in that direction	po- (start), pro- (through, distance), do- (up to), pri- (arrive)	za-, pro-, do-, po-
majnkraft	To play Minecraft	po- (some), pro- (duration)	za-, pro-, ot-, do
krossfit	To do crossfit exercise, to take up crossfit	po- (some), pro- (duration)	za-, po-, do-
iksbox	To play games on Xbox	po- (some), pro- (duration)	za-, pro-, do-, po-

Table 9. Discrepancies between Predicted Prefixes and Prefixes Used by

Participants

6.3. Overlap Hypothesis and the Prediction of Perfective Prefixes

In this part of the chapter I am testing the relevance of the Overlap Hypothesis for

the prediction of the aspectual prefixes. I am comparing the predictions based on the

semantic profiling with the actual prefixes used by the participants. I look at the

discrepancies in the predictions and actual data and provide possible explanations for

that.

First I will look at the prefixes individually, starting with *za-*, the most productive

and frequently used prefix in the novel data. There are no instances of *za-* being predicted

but not used; in fact, it was used to form perfectives from nine Impf verbs (*zanetfleksil,*

zasegvejil, zadensxollila, zasnepčatila, zauberil, zadžipiesil, zamajnkraftil, zakrossfitilla,

zauksboksil) out of nineteen, which it should not have formed according my predictions.

It would be logical to suppose that since the Aktionsarten (*sposoby dejstvija*, listed in

Zaliznjak & Šmelev (2000: 106-126) and in Chapter 2) were not taken into account while

predicting the prefixes, it might be the reason for such a frequent use of *za-* here. One of

the meanings of *za-* is BEGIN, so the participants may have interpreted the verb as Inchoative and hence employed that prefix. Besides, *za-* is the default inchoative prefix for that Aktionsart. It seems to be the case of only three stimuli nouns motivating the production of novel perfective verbs (out of nine for which *za-* was used but was not predicted: *segvej* 'Segway', *uber* 'Uber cab'*,* and *džipies* 'GPS'). For instance, the missing verb for sentence (3) below might seem 'to be starting to ride a Segway', if formed with the prefix *za-*.

(3) Posle obed-a   *on u-šel*   *i_____na*

    After lunch-MASC.GEN.SG. he PRF.leave-walk-MSC.PST.SG and_____to

drugoj konec gorod-a

another end   city-MASC.GEN.SG

'After lunch he left and _____to the other part of the city'

       What seems strange is that all three nouns form motion verbs, which usually are combined with *za-* in the meaning of DEFLECT, 'deviating from the path' (e.g., *zajti (v magazin)* 'to stop by (at a store)), not in the meaning of BEGIN. Using *za-* in DEFLECT meaning to form perfectives does not seem logical in all the stimuli sentences with these nouns (*segvej*, *uber,* and *džipies*), because their context does not imply any deviation from the route (as in (3)). None of them uses the prefix *po-* BEGIN that is the default for the verbs of motion in the Ingressive time category (Zaliznjak & Šmelev, 2000: 109). There is a possibility that due to the unfamiliarity with and lack of experience using GPS, taking an Uber, or riding a Segway, the participants who used *za-* in these cases treated the verbs as Levin's "Verbs of Performance" rather than as motion verbs. This semantic class easily takes *za-* with an Inchoative meaning. Besides, all three stimuli nouns, *segvej*, *uber, and džipies*, denote the instrument of a motion, which puts emphasis of the verbs

derived from them on manner of motion, not the motion itself. It is also worth noting that these two prototypical meanings of *za-* are closely related, as Janda et al. (2013:102-103) sort BEGIN and DEFLECT into one subgroup, because they both involve crossing the boundary. In BEGIN, the boundary is crossed from absence of an action to an action, and in DEFLECT – the boundary of the path is crossed to make a stop.

As for the "Verbs of Performance" used with *za-*, some of them, like *krossfitit'* 'to do crossfit' and *densxollit'* 'to dance in dancehall style' can match the Inchoative Aktionsart when used with *za-*, while others, such as *majnkraftit'* 'to play Minecraft' and *iksboksit'* 'to play games on Xbox', would unlikely be interpreted as Inchoative verbs in the given context (4). The START meaning of *za-* in the perfective of *majnkraftit'* in sentence (4) below would not seem logical, because the context suggests resultative meaning, that *za-* normally does not have.

(4) On bystro_____i   po-šel   spa-t'

   He quickly_____and PRF.start-go.PST.MASC.SG sleep-INF

'I quickly_____and went to bed'

I assume that *za-* is used here in the resultative meaning, and since it normally does not have one (Table 1), the prefix is starting to develop this meaning. The Performance verbs in the context of given sentences are treated as the processes that have led to a certain result which is considered an endpoint. As long as both verbs denote playing games, the participants might have thought that the game ends with winning or losing, and the perfective variant may have been formed by analogy with *zabit'* 'to score a goal'. The case might be the same with *krossfitit'* 'to do crossfit' and *densxollit'* 'to dance in dancehall style': being unfamiliar with what exactly these activities entail and which phases they consist of, some participants may have assumed that after a certain

time the actions must end in an affected patient (i.e., completing the crossfit trim rail, and completing the whole dance routine). It is confirmed by the comments of one of the post-experiment subjects: they used *za-* to form a perfective from the noun *krossfit* 'crossfit' and defined the verb as 'an activity consisting of overcoming obstacles and ends when the final point of the trim trail is reached'. The same participant used the verb *pobodibaril* in their answers, and later defined it as 'exercising with a body bar'; therefore, it has been treated as an Activity, which explains why this "Verb of Performance" is not used with *za-*.

With regards to the alleged current development of the new resultative meaning of za-, it must be said that out of ten meanings of this prefix (Table 1), nine (all except BEGIN) imply emphasis on the endpoint, finishing of the action (e.g., ATTACHMENT in *zavjazat'* 'to tie up, knot', EXCESS in *zakusat'* 'to sting, bite all over', COVER in *zasypat'* 'to cover (by strewing) (with sand)', etc.). Thus, the observed tendency may not be the development of a new meaning, but rather the merger of several semantic meanings into a more general one.

The use of *za-* with *netfliksit'* 'to watch something on Netflix' and *snepčatit'* 'to send via Snapchat' also seems curious. The BEGIN meaning of *za-* would fit with *netfliksit'* and *snepčatit'*. However, The inchoative meaning of the prefix contradicts the results of the post-test interview, during which two of the participants defined *zanetfliksit'* as 'to watch the whole movie on Netflix (until the end)' and *zasnepčatit'* as 'to send pictures via Snapchat', respectively. The latter variant seems to demonstrate the simple perfectivizing function of *za-*, because the meaning (to send via Snapchat) already implies result. These definitions do not really correlate with any of the *za-* meanings, and give support to either the proposal in Chapter 3 that *za-* is becoming a default

perfectivizing prefix, or to the proposal of earlier analysis in this chapter that *za-* is developing a new resultative meaning.

The prefix *pro-* was the second most productive prefix in the novel data (Table 3), and its use was for the most part predicted correctly by sematic profiling (Table 9). For example, the post-test interviews confirmed the accuracy of the predicted use of its THOROUGH meaning in *ekstrašotit'* 'to add an extra shot', the DURATION meaning in *densxollit'* 'to dance in dancehall style', and THROUGH meaning in *segvejit'* 'to ride a Segway'. The unpredicted use of THROUGH *pro-* with *vandrajvit'* 'to upload to OneDrive' could be explained by the subject's perception of the action as 'to run the data through the OneDrive system into the cloud'. The predicted use of *pro-* DURATION with *bodibarit'* 'to exercise with a bodybar' was the only one not attested, and the interviewed participant who had formed this perfective form with *po-* explained that they are always bored with body bar exercises in the gym and can't imagine performing them for a long time. The lack of use of this meaning by other participants could also be explained by the same semantic reasons and individual perceptions. Therefore, the Overlap Hypothesis[31] predicts the use of the prefix *pro-* very successfully. There are not many discrepancies found between the novel and the CSR use of *pro-*. The prefix preserves all its meanings in the novel verb experiment and does not seem to be developing new ones.

The same stability is demonstrated by the prefix *po-*, the use of which was correctly predicted in the majority of cases. It was not attested in the predicted meaning of SOME in *majnkraftit'* 'to play Minecraft', however, probably as a result of the participants' perceiving the process not as a simple Activity, but as necessarily leading to

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[31] "Semantic overlap between the prefix and the verb camouflages the meaning of the prefix, causing the illusion that it is empty when in fact it is not" (Janda & Ljaševskaja, 2011:148)

an inherent result, as described earlier, and therefore, being treated as a telic Accomplishment. On the contrary, *po-* was used in the SOME meaning with *vičatit'(sja)* 'to communicate via WeChat' in (5) and *xajlajterit'* 'to cover with/apply highlighter' in (6), which might have been interpreted by the subjects as 'to spend time communicating via WeChat (not transferring a message)' and 'to apply some highlighter'.

(5) *Ona srazu že___s   druz'j-ami   iz   Kitaj-a   kak tol'ko*

She immediately_ with friend-PL.INSTR from China-GEN.MASC.SG as just

pro-s(n)-nu-l-a-s'

through.PRF-sleep-SEM-PST-FEM.SG-REFL

'As soon as she woke up, she immediately_____with friends from China'

(6) *Ona bystro_____skul-y,   i   uže   vy-gljad-e-l-a   lučše*

   She quickly____cheekbone-PL and already out-see-VC-PST-FEM.SG   better

'She quickly_____cheekbones and already looked much better'

      Though *pere-* occurs more rarely in the data, all the predictions of its use were attested there, suggesting that it has the same tendencies as *po-* and *pro-*, i.e. preserving all their meanings and not developing new ones, high predictability with semantic profiling. The accurate prediction was allowed here by the correct semantic profile: e.g. *pere-* with the meaning TRANSFER perfectly correlates with the "Verb of Motion" *segvejit''* 'to ride a Segway'. It was also strengthened by the context, as in (7) due to the idea of coming somewhere through the whole city.

(7) *On očen' bystro_____na drugoj konec gorod-a,   I*

  He   very quickly_____to another end   city-GEN.MASC.SG, and

by-l   domoj vovremja.

PRF.arrive-be- pri-PST.MASC.SG home on_time

'He _____ to the other part of the city very quickly, and arrived home on time.'

The prefix *do-* was significantly underpredicted by the semantic profiling, similarly to *za-*, with only eight verbs formed from it out of nineteen nouns. The definitions obtained at the post-experiment stage, *dokonsilerila* 'to finish applying concealer', *donetfliksila* 'to finish a movie on Netflix' and *doparkuril* 'to reach the end of the street performing parcour movements', demonstrate that the semantics of the verbs were matching the categories the verbs were tagged with. Instead of perceiving the meanings of the verbs differently, the participants shifted their focus to the final phases of the processes expressed by these verbs, treating them as Completive/ Resultative. The use of *do-* in the meaning UP TO/ UNTIL THE END was predicted for these verbs (*dokonsilerila*, *donetfleksila*, *doparkuril*), where focusing on the final stage was suggested by the context: in (7) above, *do-* with the meaning UP TO fits because of the reference to a destination, i.e., another part of the city, and the striving to reach it on time. In addition to sentence (7), *do-* was correctly predicted for sentences with *uberit'* 'to take an Uber cab' and *džipiesit'* 'to use GPS to move in a certain direction'. All three verbs are classified as "Verbs of Inherently Directed Motion" (Table 8), which is suggested by the presence of the goal and destination in mind and the possibility of reaching it.

The motivation for the use of another severely underpredicted prefix, *ot-* (attested but not predicted in seven out of 19 cases), is also explained primarily by the context of the sentences in which it appeared.

In the comparison of predicted and attested prefixes, all five meanings of the prefix *ot-* (Table 1) did not seem to match semantics at first. Despite the lack of the data from the post-test interview, I will try to provide the interpretation of the use of *ot-* in the given sentences. In (8) and (9) below, it was apparently used in the meaning of STOP AT

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THE ENDPOINT, which refers to a departure from not a place but an activity that the Subject has been preoccupied with for some time. In (8) the perfective verb *otmajnkraftil* would mean 'finish playing Minecraft' (similarly to *otslužit'* 'to serve one's time, to finish serving'), and in (9) below, *otkonsileril* 'to finish applying concealer' (similarly to *otpolirovat'* 'to polish off, finish polishing').

(8) On bystro_____i   po-še-l   spat'

   he quickly_____and   start. PRF-go.PST.MASC.SG. sleep.INF

'he quickly_____ and went to bed'

(9) Kak tol'ko ona na-š-l-a   zerkalo, srazu že_____krug-i

As soon as   she PFV-found-PST-FEM.SG mirror, immediately_____circle-PL.ACC

 pod   glaz-ami.

under eye-INSTR.PL

'As soon as she found a mirror, she immediately_____the dark circles under his eyes'

  Also worth noting is that the analogous verbs already existing in the language do not use *ot-* in that meaning. As a native speaker, I cannot consider the use *otkrasit' guby* in the meaning of 'to finish applying lipstick' grammatical; I would prefer using the *do-* in the synonymous verb *dokrasit'*, and using *ot-* with that meaning in the context of an action that is completed, or even cancelled, and is never occurring again, like in *otcvesti* 'to stop blooming' and *otmenit'* 'to cancel'. I asked the three participants of post-test interview to form verbs with these meanings, and they all produced the forms identical to mine. Therefore, it might be assumed, that *ot-* in the STOP AT THE ENDPOINT meaning is expanding its usage, and is starting to be employed alternatively with or instead of *do-* in the synonymous meaning UP TO (THE END). The reasons for the usage of *ot-* with the

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verbs *bitkojnit'* 'to convert to Bitcoin', *podkastit'* 'to upload to podcast, and *vandrajvit'* 'to upload to OneDrive' are more difficult to determine. Perhaps *ot-* was used with these verbs in the metaphorical meaning BOUNCE (Table 1) referring to causing a change in something as a result of contact, where the contact did not stay permanent, therefore, something bounced off, by analogy with *otletet'* 'to bounce back' and *otbit'* 'to beat back'. In other words, *otpodkastit'* would mean 'to change the format of something into a podcast', and in the stimuli sentences it would be interpreted as converting items into a podcast format by 'bouncing them off' the process of recording. It is similar to *otpečatat'sja* 'to be imprinted', which describes contact and removal that leaves an impression. If the assumption is correct, this will indicate an expansion of the BOUNCE meaning of *ot-*.

Among the least productive prefixes in the novel verbs, *na-, pri-, o-*, and *pod-*, the prefix *na-* in the meaning SURFACE was predicted accurately, e.g. with the verb *konsilerit'* 'to cover with, to apply concealer'. The infrequent usage of the prefix is motivated by its comparatively narrow meaning. Its use was not predicted with *vičatit'sja* 'to communicate via WeChat', where the meaning ACCUMULATE is most likely motivated by treating the verb as one with the Cumulative[32] Aktionsart, which in its turn is probably motivated by the individual attitude of the participant toward communicating with friends online: they might really enjoy doing that, and it might take them a while to get enough of it, or the opposite: they might consider it to be a waste of time, and use ACCUMULATE meaning having 'too much talking' in mind. Considering the young age of the participants, the first attitude seems more likely than the second.

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[32] Refers to verbs denoting accumulation of the result of an action, e.g. *na-gotov-i-t'* 'ACCUMULATE.PRF-cook-VC-INF, to finish cooking a lot of food' (Z & Š, 2000: 118)

On semantic grounds, *pri-* ATTACH was expected for *xotspotit'sja* 'to connect to a hotspot', but was not used. This example, however, does not indicate unreliability of the semantic profiling prediction, but provides evidence in favor of the increasing domination of *za-*, since *za-* was used by all the participants in the synonymous to *pri-* meaning ATTACHMENT to produce the perfective form of this verb. The other possibility is forming the perfective form here with analogy to already existing *zaloginit'sja* 'to have logged in'. *Pri-* in the meaning ARRIVE was predicted for several verbs of motion, and was used with *uberit'* 'to take an Uber', but was not found with *segvejit'* 'to ride a Segway' or *džipiesit'* 'to use GPS to move in a certain direction'. However, the contexts of the sentences would allow its use, in that they mentioned the presence of the destination, i.e., the goal of the movement. This suggests that the ARRIVE meaning of *pri-* is shrinking, being used only if the focus of the utterance is completely on arriving somewhere, not on the vehicle or manner of motion (e.g, Uber vs. Segway), etc.

Finally, the prefix *o(b)-* also was outperformed by more high-frequency prefixes with synonymous meanings: by *za-* in the meaning CHANGE TO A FIXED STATE (synonymous with *o(b)-*IMPOSE/ ACQUIRE A NEW FEATURE), with the verb *ekstrašotit'* 'to add an extra shot', and by *za-* in the meaning COVER and *na-* in the meaning SURFACE (both synonymous with *o(b)-* AFFECT A SURFACE), with *konsilerit'* 'to apply/cover with concealer'. *O(b)-* appeared only once in the experiment, which may indicate that it is becoming unproductive, at least in these meanings, since its core meaning AROUND cannot be expressed by another prefix.

One of the predicted prefixes, *s-* TOGETHER, was not used at all because, apparently, it has been replaced by *za-* with the synonymous meaning ATTACHMENT.

On the whole, the prediction of prefixes based on finding overlap between their

established meanings and the semantic tagging of verbs was highly accurate, indicating that the Overlap Hypothesis can be used successfully for this purpose. In the cases where the prediction was wrong, the choice of other prefixes was motivated by other factors, such as individual perception and interpretation of the meaning of the Impf verb, without taking Aktionsarten into account, and unfamiliarity with the concepts denoted by the verb. A more complex approach to prediction, based on the semantic overlaps of verbs and prefixes and also accounting for the lexical Aktionsarten categories and contexts of the sentences should yield even more accurate results.

The study also demonstrates the value of using two or more semantic classifications for tagging, in order to lead to a more accurate prediction. Further, it also signals the necessity to reconsider and adjust the semantic classification used in the RNC, since for certain verbs it is insufficient. At the very least, the RNC should develop tags for performances and activities, and the category MOVE should be reevaluated and probably divided into several smaller categories.

Besides, it must be mentioned that the previous assumption of usage certain prefixes by analogy with verbs already existing in the language did not coma across as accurate. For example, the prefix *pod-* may be predicted in the meaning ADJUST for *xajlajterit'* 'to cover with/ apply highlighter' mostly based on the expected analogy with the Pf verb *podkrasit'(sja)* 'to adjust makeup'. In the same way, because of the analogy with *podklučitsja* 'to connect', *pod-* may be expected for *xotspotit'sja* 'to connect to a hotspot'. In both cases, prediction by analogy is not justified by the data, which probably indicates general unreliability of analogy for prediction of prefix/verb matches. Such cases most likely indicate that analogy is not an effective criterion for prediction since apparently this is not the way native speakers think when perfectivizing verbs that are

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new to them. However, analogy can still be used in justifying certain usage deviations from the norm or most frequent and expected prefixes, as seen in Chapter 5 and earlier in the current chapter (*zaxotspotit'sja* and *zaloginit'sja).*

In conclusion, this chapter has provided evidence of tendencies and patterns in the aspectual prefixation of novel verbs. An example is the dominance of *za-* in the data, and its increasing productivity for perfectivization purposes, having a wide range of meanings that are all used frequently, and suppressing the use of other prefixes with synonymous meanings, hence making them unproductive. There is evidence towards developing of a resultative meaning for *za-* (*zamajnkraftil* 'have finished/won the game'; *zanetfliksila* 'have watched the whole movie on Netfliks') and even a few examples of its use that do not seem to have any meaning except perfectivization (*zasnepčatita)* — although the limited data from this small study is not sufficient to conclude whether *za-* is becoming the default perfectivizing suffix in Russian.

Similarly to *za, ot-* was underpredicted as a result of the current growth of its productivity. The use of *ot-* in two meanings, STOP AT THE ENDPOINT and BOUNCE, shows an increase in frequency, with *ot-* in the former meaning replacing *do-* in its synonymous meaning. This is in parallel to a high productivity of the verbal category suffix *-i-,* which seems to be replacing *-ova-* verb category suffix. Based on the data described in Chapter 3.4, the verb category suffix *-ova-* seems to be no longer productive in Russian. It correlates with the findings of Kapatsinski (2005) showing that he productivity of the verbal stem extension *–ova-* is limited to very specific morphological contexts, namely to form verbs from the nominal stems ending in *–stv*, e.g. *ševstvovat'* 'to act as a patron' derived from *ševstvo* 'patronage', or in formal writing speech, e.g., *datirovat'* 'to date (a document)' (p.154-156).

Conversely, certain other prefixes, like *do-*, are yielding on novel verbs to other prefixes with synonymous meanings. For example, *pri-* is weakening under pressure from *za-* in the synonymous meaning ATTACH. The most drastic decline is demonstrated by the prefix *o(b)-* in the majority of its meanings, which may indicate that it will become unproductive soon in all meanings but AROUND.

Some prefixes in the study, i.e., *po-, pro-, pere-* did not deviate from their use in CSR, being attested in all their meanings and successfully predicted on the base of semantics, and not exhibiting any new or expanded meanings.

CHAPTER VII

CONCLUSION

This thesis has explored prefixation, one of the morphological mechanisms for the marking of aspect and Aktionsarten in Russian, focusing on prefix variation in novel verbs versus CSR verbs.

As described in Chapter 3 on methodology, in order to compare prefix variation in novel verbs to prefix variation in standard Russian, I designed an experiment in which 37 native speakers of Russian participated. The experiment elicited the perfective verbs formed from the borrowed English nouns. The novel prefixed perfective verbs attested during the experiment were analyzed in comparison with databases for CSR created for the Exploring Emptiness research project at the University of Tromsø.

The analysis revealed significant prefix variation among the novel perfective verbs. It is caused the broad semantics of the novel verbs and the absence of the restrictions and rules in the language for their formation.

The aspectual prefix *za-* demonstrated dominance over other prefixes in the formation of the perfective forms. It has been hypothesized that *za-* is showing evidence of developing a new resultative meaning and is slowly starting to be used as the default perfectivizer without any additional semantic meaning. The high production of *za-* is attributed to its extensive semantics, high distribution, having meanings covering different parts of the time contour of an action (e.g., *za-* in the inchoative meaning and in the meaning of fixation, that focuses on the endpoint), all resulting in its overgenerelazition and movement towards generalization.

Other morphological changes in the word-formation system have been revealed.

Certain morphemes, such as verb category suffix –ova-, prefixes o(b)- and pri- are losing their productivity, being significantly outnumbered by other morphemes with synonymous meanings and functions.

The Overlap Hypothesis has proven effective for the prediction of the prefixes used for the perfectivization on the basis of the semantic tie between the prefix and the verb's base, that is, in the case of the current study, the meaning of the borrowed noun the verb is formed from. Accounting for the correlation between the context of the sentences, semantic Aktionsarten and the semantic meaning of prefixes is recommended to get more accurate predictions.

Further research that continues the exploration of this topic could build upon some findings of this thesis and look in more details into the apparent dominance of za-, or simply expand on the database of novel verbs to increase the reliability of any conclusions. There is a need for conducting additional study to look at the more spontaneous production that would be more indicative of the current processes in the language. Since the current test was very artificial, and I can say only that when forced to make up Pf verbs, the subjects showed tendencies that suggest that the use and interpretation of specific prefixes, and the productivity of others, has changed since the majority of the examples in the CSR, at least with respect to loan verbs. Other research studies are necessary to check if the same would extend beyond loanblends to new 100% native verbs and to look at the distribution of prefix variation in more contexts.

The results presented in this work also have pedagogical implications, in that a description of the correlation between the meanings of aspectual prefixes and the semantic classes of the verbal roots would be helpful for advanced students of Russian as a foreign language, making it possible for them to interpret and produce "matches" with

better accuracy and attain a richer understanding of the overall verbal system. The semantic ties between prefixes and verbal roots need to be accounted for in the design of instructional materials and lesson planning.

APPENDIX A

SAMPLE EXPERIMENTAL TEST

Task: Вам будет предоставлено существительно и предложение с пропуском. Пожалуйста, отталкиваясь от контекста, заполните пропуск глаголом, образованным от данного существительного, чтобы полученное предложение казалось Вам грамматически верным и смысл контекста не был нарушен. Пропуск должен быть заполнен только одним словом, не фразой.

Примеры: Гугл
Вчера мне пришлось <u>погулить</u> пару терминов из статьи.

Соль
Суп просто идеальный, ты его точно не <u>пересолила</u>!

Завтрак
Я не хочу есть, я уже <u>позавтракал</u>.

1. Джипиэс
Как только он нашел адрес центра, он сразу ＿＿＿＿＿＿＿＿＿＿＿＿на встречу

2. бодибар
 Как только она пришла в спортивный центр, она＿＿＿＿＿＿＿＿＿＿＿чуть-чуть и пошла в бассейн
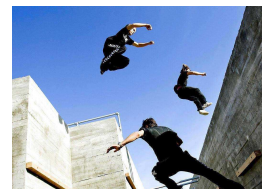

3. хот-спот

Как только он нашла зарядку для ноутбука, сразу же

＿＿＿＿＿＿＿＿＿

4. паркур

Как только дождь кончился, Он сразу же ＿＿＿＿＿＿＿＿＿＿＿＿＿пол района

5. сегвей

Пообедав, он сразу же ушел и＿＿＿＿＿＿＿＿＿＿＿＿＿＿на другой конец города.

6. Торрент

Мы завтра_____эти новые фильмы, приходи смотреть

7. Дэнс-холл

Как только она услышал регги-музыку на вечеринку, сразу обо всем забыла и
_____от души.

8. Пиар(PR)

Тот случай на площади и видео в интернете отлично_____его кампанию.

9. Икс-бокс

Как только он пришел домой, он сразу_____, и только потом пошел ужинать

10. Инстаграм.

Я сейчас _____ эту фотографию и присоединюсь к вам.

11. Ван-драйв

Как только она пришла домой, то сразу же _____ все фото из поездки мои друзья получили доступ к ним

12. Кроссфит

Как только она бросила йогу, сразу же_____.

13. Скайп

Они завтра позвонят родителям и_____с вами тоже.

14. биткойн

Как только он снял все деньги со своего сберегательного счета, сразу же
_____все до копейки.

15. фейсбук

Как только он публиковал новый пост на фейсбуке, она сразу
_____его на страницы всех сообществ, в которых состояла.

16. Снэпчат

Как только ты прислал ей те фото в секретном чате, она сразу их мне
_____

17. Подкаст

Как только ты прислал нам статьи, он их сразу же _____

18. Майнкрафт (компьютерная игра)

Он_____сразу после того, как брат вышел из игры

APPENDIX B

QUANTITATIVE RESULTS OF THE PREFIX USE

	Stimuli nouns	Combination of prefixes	The forms attested, with the amount of times attested
Как только он снял все деньги со своего сберегательного счета, сразу же _____все до копейки.	биткойн	за-, про-, от-, о-	забиткойнил-27,пробиткойнил-6, отбиткойнил - 3, обиткойнил - 1
Она не спала всю ночь, и как только пришла сразу же _____ свой капучино.	экстра шот	за-, про	заэкстрашотила-31, проэкстрашотила -6
Как только она пришла домой, то сразу же _____все фото из поездки мои друзья получили доступ к ним	ван-драйв	за-, про-, от-	заванлрайвила-23, отвандрайвила - 11, провандрайвнула-1, вандрайвнула-1, завандрайвнула - 1
Как только он нашел зеркало, сразу же _____ темные круги под глазами	консиллер	за-, до-, по-, под-, на-	законсилерил-18,доконсилерил-8, поконсилерил - 6, подконсилерил-2, наконсилерил-1,
Она сразу же _____ скулы и нос, как только она мне сказала, что я выгляжу мрачно.	хайлайтер	за-, от-, до-, по-, на	захайлайтерила-20, похайлайтерила - 8, нахайлайтерила - 4, дохайдайтерила - 3,отхайлайтерила -2,
Как только он нашла зарядку для ноутбука, сразу же _____	хотспот	за-,	захотспотился-27, захотспотил-10

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Как только она пришла в спортивный центр, она _____чуть-чуть и пошла в бассейн	бодибар	от-, по	пободибарила-27, отбодибарила-10,
Как только дождь кончился, Он сразу же _____ пол района	паркур	про, до-, пере-	пропаркурил - 26, перепаркурил - 10, допаркурил - 1
Пообедав, он сразу же ушел и _____на другой конец города.	сэгвей	за-, про-, до-, пере	просэгвеил-26, досэгвэил-9, засэгвеил-1, пересэгвеил-1
Как только она услышал регги-музыку на вечеринку, сразу обо всем забыла и _____от души.	дэнсхолл	за-,	заденсхоллила-37
Как только он пришел домой, он сразу_____, и только потом пошел ужинать	иксбокс	за-, до-, по	поиксбоксил-27, заиксбоксил-7, доиксбоксил-3,
Как только она бросила йогу, сразу же_____.	кроссфит	за-, по	закроссфитила - 32, кроссфитила-3, покроссфитила-2
Как только ты прислал ей те фото в секретном чате, она сразу их мне _____	снэпчат	за-, от-, пере-	отснепчатила-17, заснепчатила-12, переснепчатила-8
Как только ты прислал нам статьи, он их сразу же _____	подкаст	за-, от-, до-	заподкастил-23, доподкастил-10, отподкастил-4,
Он_____ сразу после того, как брат вышел из игры	Майнкрафт (компьютерная игра)	за-, про-, от-, до-	домайнкрафтил-17, промайнкрафтил-13, отмайнкрафтил-5, майнкрафтил-1, замайнрафтил-1
Она сразу же _____с друзьями из Китая, как только проснулась, и совсем забыла тебе позвонить	Вичат (WeChat)	за-, про-, по- , на-	завичатилась-25, провичатилась-3, провичатила-3, повичатилась-3, навичатилась-2, завичатила-1
Как только она пришла домой, сразу _____	Нетфликс	за-, про-, до-	занетфлексила-17, донетфлексила-

"Офис" и уснула, забыв тебе ответить			12, пронетфлексила-8
Как только встреча закончилась, он сразу же _____ к вам.	Убер	за-, до-, по-, при-	приуберил-20, доуберил-11, поуберил-5, зауберил-1
Как только он нашел адрес центра, он сразу _____ на встречу	Джипиэс	за-, про, до-, по	проджипиэсил-21, доджипиэсил-7,заджипиэсил-4, поджипиэсил-3, джипиэснул-1, джипиэсил-1
Already exisitng verbs, used for distraction			
Как только мы починили модем, он сразу _____ этот фильм.	Торрент		заторрентил- 31; сторрентил - 6
Как только штаб получил финансирование, они сразу _____ своего кандидата.	Пиар		пропиарили-32, распиарили-5
Как только она скачал приложение, не смогла удержаться и _____ все наши фото.	Инстаграм		заинстаграммила-37
Как только он _____ с родителями, он расскажет вам все!	Скайп		поскайпила-30, поскайпилась-7
Context 2			
Он посмотрел финансовые новости и быстро _____ свою зарплату	биткойн	за-, про-, от-	забиткойнил-30, отбиткойнил-6, пробиткойнил-1
Маша быстро _____ свой латте, и за два часа дописала статью	экстра шот	за-, про	заэкстрашотила-26, проэкстрашотила-5, проэкстрашотнула-2, экстрашотнула-3
Он быстро _____ все песни, и я смог их скачать.	ван-драйв	за-, от-	заванлрайвил-26, отванлрайвил-9, вайндрайвнул-1,

			завандрайвнул-1
Лена умылась, быстро _____все покраснения и побежала на пару.	консилер	за-, от-, до-, по-, под-, на-	законсилерила-17, доконсилерила-6, наконсилерила-6, поконсилерила-4, подконсилерила-3, отконсилерила-1
Она быстро _____все выступающие зоны и уже выглядела гораздо лучше	хайлайтер	за-, по-, на	захайлайтерила-20, похайлайтерила-8, нахайлайтерила-8
он приехал в аэропорт, быстро _____, и зарегистрировался на рейс онлайн.	хотспот	за-,	захотспотился-37
Она быстро _____и поехала домой	бодибар	от-, по	пободибарила-22, отбодибарила-11,
он быстро _____всю центральную улицу и приступил к отработке более сложных трюков	паркур	про, пере	пропаркурил-10, перепаркурил-24
Он очень быстро _____на другой конец города, и прибыл домой вовремя.	сэгвей	за-, про-, до	просэгвэил-26, засэгвэил-8, досэгвеил-6,
Она сделали растяжку, быстро _____и приступила к основной репитиции	дэнсхолл	за-, про-, по-	подэнсхоллила-25, задэнсхоллила-6, продэнсхоллила-6
Дима быстро _____, и потом сел ужинать	искбокс	за-, про-, до-, по-	поиксбоксил-23, доиксбоксил-12, заиксбоксил-1, проиксбоксил-1
она быстро _____и поехала к тебе.	кроссфит	до-, по	покроссфитила-18, докроссфитила-19
она быстро _____мне основные ракурсы, и мы решили	снэпчат	за-, от-, пере-	отснепчатила-17,заснепчатила-12,

какую мебель купить			переснепчатила-8,
Сегодня утром она сначала быстро _____ статьи, и потом отвечала на имейлы	подкаст	за-, от-, до-	заподкастила-19, доподкастила-11, отподкастила-7,
Он быстро _____ и пошел спать	Майнкрафт (компьютерная игра)	за-, про-, от-, до	домайнкрафтил-17, промайнкрафтил-14, отмайнкрафтил-5, замайнкрафтил-1
она так быстро _____ с подругой из Китая, и совсем не заметила мое сообщение!	Вичат (WeChat)	за-,	завичатилась-28, завичатила-9
она быстро _____ "Офис", и начала делать задание.	Нетфликс	за-, про-, до-, по	занетфлексила-16, пронетфлексила-10, донетфлексила-7, понетфлексила-4
Он довольно быстро _____сюда, всего через 15 минут, и мы успели на спектакль до третьего звонка	Убер	за-, про-, до-, при	приуберил-21, доуберил-9, зауберил-5, проуберил-2
Папа_____сюда очень быстро! Ему понадобилось почти полчаса!	Джипиэс	за-, про-, до-	проджипиэсил-20, доджипиэсил -14, заджипиэсил-3
Он очень быстро _____сериал, и начал смотреть его, не дождавшись пиццы.	торрент	за-, до	заторрентил- 29; сторрентил - 7; доторрентил - 1
Это видео в интернете очень быстро _____его кампанию.	Пиар	про-	пропиарило - 29; распиарило- 8
Он быстро _____все в сториз, и вся школа узнала об этом.	Инстаграм	за-,	заинстаграммила-37
Миша довольно быстро _____ с	Скайп	по-	поскайпила-30, поскайпилась-7

друзьями и вернулся к нам.			

APPENDIX C

VENDLERIAN AKTIONSASRTEN ASSIGNED TO THE NOVEL VERBS

Stimuli noun	Approximate definition of a perfective verb	Aktionsart
bitcojn	To convert into bitcojn	Accomsplishment/ Achievement
podkast	To convert articles to podcast format, to upload to podcast channel	Accomplishment
ekstra šot	To add extra shot	Achievement
uandrajv	To upload to one drive	Accomplishment
konsiler	To cover with/ apply concealer	Accomplishment
xajlajte-r	To cover with/ apply highligter	Accomplishment
xotspot	To connect to hotspot	Achievement
vičat	To communicate via WeChat	Activity
netfliks	To watch on Netflix	Activity
bodibar	To exercise with a body bar	Activity
parkur	to move around employing parcour technique	Activity
segwej	To ride a Segway	Activity
densxoll	To dance in the "dancehall" style	Activity
snepčat	To send via Snapchat	Achievement
uber	To get somewhere in an Uber	Accomplishment
džipies	To use GPS in order to find direction somewhere and get in that direction	Accomplishment
majnkraft	To play Minecraft	Activity
krossfit	To do crossfit exercise	Activity
iksbox	To play games on Xbox	Activity

APPENDIX D

ABBREVIATIONS

*ungrammatical

ACC accusative

FEM feminine

GEN genitive

IMPF/ Impf imperfective aspect

INF infinitive

INST instrumental

MASC masculine

NOM nominative

NP noun phrase

PL plural

PRF/ Pf perfective aspect

PST past tense

REFL reflexive

RNC Russian National Corpus

SD standard deviation

SEM Semelfective

SG singular

VC verb category

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