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A large, stylized sunburst or fan-like graphic in a lighter shade of purple, positioned on the left side of the cover. It has a dark purple central oval and radiating lines that form a semi-circle of rounded, fan-like segments.

ASPECTUAL PAIRS OF RECENTLY BORROWED VERBS IN RUSSIAN

Gustaf Olsson



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ABSTRACT

The topic of this dissertation is the formation of aspectual pairs of modern loan verbs in Russian. The questions it aims to answer are which aspectual affixes (prefixes and/or suffixes) are used to form aspectual pairs and what are the reasons behind the choice of aspectual affix?

The dissertation consists of four articles and an introductory section (“summary”). The summary discusses theoretical issues regarding verbal aspect, aspectual pairs, and loan verbs, as well as the results of the four articles and my interpretation of the results.

Article I is an observational study of verbs borrowed into Russian during the 20th century and their aspectual pairs in nine dictionaries aimed at a general audience. The most common perfectivizing prefix in this study is *za-*, with 17 verbs. In second place is *s-*, in third place *pro-*, and the fourth most common prefix is *ot-*. After these prefixes, the prefix *po-* is attested for two verbs, and attested with one single verb are *na-*, *o-*, and *raz-*.

Article II reports on an experiment in which 120 native Russian speakers were asked to form perfective counterparts of a number of loan verbs, most of which are related to new technologies from the late 20th and early 21st centuries. The participants read constructions with a light verb (or “compensator verb”) and a noun or company name written in italics, and were asked to form a synonymous verb in the same aspect as the light verb. An example is *postavit' lajk* ‘press “like” [=the “like” button on social media sites or apps]’, to which most respondents answered *lajknut'* ‘like’. The most common perfectivizing affixes for the 19 perfective verbs in the experiment turned out to be *-nu-* and *za-*, followed by *pro-*, *ot-*, and *s-*. The results of this study furthermore indicate that *prefix variation* is common in recent loan verbs in Russian, as no verb in the study showed 100% agreement by all participants in the choice of aspectual affix.

The two last articles discuss prefix variation in loan verbs, i.e. imperfective verbs with two or more corresponding perfective verbs. Article III is a case study of the verb *guglit'* ‘google’ and semantic differences between its corresponding perfectives *zaguglit'*, *naguglit'*, *poguglit'*, and *proguglit'* on the basis of the co-occurrences (adverbs and direct objects) in Russian mass-media texts collected from the Integrum mass-media database. Article IV is written in Russian and is concerned with prefix variation in a broader sense: stylistic, diachronic, and semantic facets of prefix variation, including prefix variation in loan verbs. It also contains two small corpus analyses. The first shows that some prefixed loan verbs have become outdated,

which indicates that prefix variation can also be a diachronic phenomenon. The other is a small co-occurrence study, similar to that in Article III, on the verbs *zašerit'*, *pošerit'*, and *rašserit'*, aspectual correlates to *šerit'* 'share (often: on social media, on the internet)', which show smaller semantic differences than the verbs in Article III *za-/na-/po-/proguglit'* 'google'.

A hypothesis that has guided the work in this dissertation and in all articles is that prefixes in aspectual pairs are not purely aspectual, "empty" markers of perfective aspect, but rather express a specific semantic element also present in the base verb. This hypothesis, called the "overlap hypothesis", is especially visible in verbs with a spatial meaning and in verbs with prefix variation, where different prefixes underline different semantic nuances of the base verb. A few prefixes (*za-*, *s-*, *pro-* and *ot-*, as well as the suffix *-nu-*) have broad meanings and are used in a number of different verbs with different meanings, whereas other, "small" prefixes are used in fewer verbs, with more specific, often spatial, meaning.

KEYWORDS: Russian, loanwords, verbal aspect, prefixation, suffixation

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TIIVISTELMÄ

Tämän väitöskirjan aiheena on lainaverbien aspektiparien muodostaminen nykyvenäjässä. Väitöskirja pyrkii vastaamaan seuraaviin kysymyksiin: mitä affikseja (prefiksejä tai suffikseja) käytetään aspektiparien muodostuksessa nykyvenäjässä ja miksi juuri näitä affikseja käytetään?

Väitöskirja koostuu neljästä tieteellisestä artikkelista ja johdannosta. Johdanto käsittelee kieliteoreettisia kysymyksiä venäjän verbiaspekteista, aspektipareista, lainaverbeistä sekä väitöskirjan neljän artikkelin tuloksia. Johdannossa on myös tutkimustulosten analyysi.

Artikkeli I on havainnollinen tutkimus 1900-luvun lainaverbeistä venäjän kielessä ja niiden aspektipareista yhdeksän laajalle käyttäjäkunnalle suunnatun sanakirjan mukaan. Yleisin käytetty aspektuaalinen prefiksi tässä tutkimuksessa on *za-*, joka esiintyy 17 verbin yhteydessä. Toisena on *s-*, kolmantena *pro-* ja neljänneksi yleisin aspektuaalinen prefiksi on *ot-*. Vähemmän yleisiä ovat prefiksit *po-*, *na-*, *o-* ja *raz-* sekä suffiksi *-yva-*.

Artikkelissa II kuvataan koeasetelmasta saatuja tuloksia. Kokeeseen osallistui 120 henkilöä, joiden äidinkieli oli venäjä. Heitä pyydettiin muodostamaan perfektiiiset parit uusille lainaverbeille, joista suurin osa kuuluu tekniikan alaan ja on lainattu venäjään 2000-luvulla tai 1900-luvun lopulla. Kokeen osallistujat näkivät rakenteita, joissa oli ns. ”kompensaattoriverbi” ja kursivoitu substantiivi. Nämä he muuttivat yhdeksi verbiksi, jolla on sama merkitys ja aspekti kuin kompensaattoriverbillä. Esimerkiksi rakenteesta *postavit' lajk 'paina "tykkään" ["tykkään"-painike sosiaalisessa mediassa - verkkosivustoilla tai sovelluksissa]* useimmat osallistujat muodostivat verbin *lajknut'*. Kokeen yleisimmät affiksit olivat *-nu-* ja *za-*, sitten seurasivat *pro-*, *ot-* ja *s-*. Tutkimuksen tulokset osoittavat myös, että prefiksivaihtelu on yleistä uusissa lainaverbeissä: yhdenkään verbin yhteydessä kaikki koehenkilöt eivät valinneet samaa aspektiprefiksiä.

Kahdessa viimeisessä artikkelissa käsitellään lainaverbien prefiksivaihtelua, eli tapauksia, joissa imperfektiivisen aspektin verbillä on kaksi tai useampia eri prefiksillä muodostettuja perfektiivisiä aspektipareja. Artikkeli III on tapaustutkimus verbistä *guglit' 'googlettaa'*, sen perfektiivisistä pareista *zaguglit'*, *naguglit'*, *poguglit'* ja *proguglit'* ja niiden semanttisista eroista. Tutkimus perustuu näiden verbien kollokaatioihin (adverbit ja suorat objektit) Integrum-tietokannasta poimituissa venäläisissä mediateksteissä. Artikkeli IV on kirjoitettu venäjäksi ja se käsittelee prefiksivaihtelua laajemmasta näkökulmasta, prefiksivaihtelun eri ulottuvuuksia kuten tyylieroja, diakronista kielenmuutosta ja semanttisia eroja. Se sisältää myös kaksi pientä korpustutkimusta. Ensimmäinen niistä osoittaa, että jotkut

prefiksin avulla muodostetut lainaverbit ovat vanhentuneet eivätkä ole enää käytössä nykyvenäjässä. Toinen on samanlainen kollokaattitutkimus kuin artikkelissa III, tällä kertaa prefiksiverbeistä *zašerit'*, *pošerit'* ja *rasšerit'*, jotka tulevat sanasta *šerit'* 'jakaa (usein sosiaalisessa mediassa tai Internetissä, sana tulee englannin kielen sanasta *share*)'. Näillä verbeillä ei ole yhtä suuria semanttisia eroja kuin verbeillä *za-/na-/po-/proguglit'* 'googlettaa'.

Väitöskirjatyöskentelyä on ohjannut hypoteesi, että aspektien muodostamisessa käytettävät prefiksit eivät ole ”puhtaasti aspektuaalisia” tai ”tyhjiä” aspektimerkkejä, vaan ne ilmaisevat jotakin semanttista komponenttia, joka on jo olemassa verbivartalossa. Hypoteesi tunnetaan nimellä ”overlap hypothesis” (suomeksi: ”päällekkäisyshypoteesi”) ja se näkyy selkeimmin verbeissä, joilla on spatiaalinen merkitys, ja verbeissä, joilla on prefiksivaihtelu, jolloin eri prefiksit korostavat alkuperäisen verbin erilaisia semanttisia vivahteita. Jotkut prefiksit (*za-*, *s-*, *pro-* ja *ot-* sekä suffiksi *-nu-*) sisältävät paljon eri merkityksiä, ja niitä käytetään monissa verbeissä, joilla on erilainen merkitys. Muita, ”pieniä” prefiksejä käytetään pienemässä määrässä verbejä, joilla on tarkempi, usein spatiaalinen merkitys.

ASIASANAT: venäjän kieli, lainasanat, verbiaspekti, prefiksaatio, suffiksaatio

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SAMMANFATTNING

Denna avhandling handlar om hur aspektpar av lånverb i modern ryska bildas. Avhandlingen söker besvara följande frågor: vilka affix (prefix och/eller suffix) används i bildandet av nya aspektpar och vilka är orsakerna bakom valet av affix?

Avhandlingen består av fyra vetenskapliga artiklar samt en inledande kapp. Kappan behandlar övergripande teoretiska frågor om verbaspekt i ryska, aspektpar, lånverb samt resultaten av de fyra artiklarna och analys av deras resultat.

Artikel I är en observationsstudie över verb som lånats in i ryskan under 1900-talet och deras aspektpar enligt nio stora ordböcker som är skrivna för allmänheten. Det vanligaste aspektuella prefixet i denna studie var *za-*, med 17 verb. På andra plats kom *s-*, på tredje plats *pro-* och det fjärde vanligaste aspektuella prefixet var *ot-*. Mindre vanligt förekommande var prefixen *po-*, *na-*, *o-* och *raz-* samt suffixet *-yva-*.

Artikel II beskriver resultaten av ett lingvistiskt experiment där 120 deltagare med ryska som modersmål ombads att bilda perfektiva motsvarigheter till en mängd moderna lånverb, varav de flesta hör till den teknologiska sfären och är bildade på 2000-talet eller i slutet av 1900-talet. I experimentet fick de deltagande se konstruktioner med ett så kallat ”kompensatorverb” och ett kursiverat nomen, som de skulle skriva om till ett verb med samma betydelse och aspekt som kompensatorverbet. Ett exempel är *postavit' lajk* ’trycka ”like” [”gilla”-knappen på sociala medier – hemsidor eller appar]’, vilket de flesta deltagande skrev om till *lajknut' 'gilla, lajka*’. De vanligaste aspektuella affixen för de 19 perfektiva verben i studien var *-nu-* och *za-*, följda av *pro-*, *ot-* och *s-*. Vidare tyder studiens resultat på att prefixvariation är vanligt i nya lånverb, då inget verb uppvisade hundra procentig enighet bland de deltagande i valet av aspektuellt affix.

De två sista artiklarna diskuterar prefixvariation i lånverb, det vill säga när ett imperfektivt verb har två eller flera perfektiva motsvarigheter, bildade med olika prefix. Artikel III är en fallstudie av ett verb: *guglit'* ’googla’ och de semantiska skillnaderna mellan dess motsvarande perfektiva verb *zaguglit'*, *naguglit'*, *poguglit'* och *proguglit'*. Studien utgår från dessa verbs kollokater (adverb och direkta objekt) i ryska massmedietexter hämtade från databasen Integrum. Artikel IV är skriven på ryska och behandlar prefixvariation ur ett något större perspektiv, olika uttryck av prefixvariation såsom stilistiska skillnader, diakron språkförändring och semantiska skillnader. Den innehåller dessutom två mindre korpusstudier. Den första visar att vissa prefixerade lånverb har blivit omoderna och inte används i modern ryska, och den andra är en kollokatstudie liknande den i Artikel III på de prefixerade verben *zašerit'*, *pošerit'* och *rasšerit'* som kommer av *šerit'* ’dela (ofta på sociala medier

eller på internet, av engelskans *share*)'. Dessa verb uppvisar inte fullt lika stora semantiska skillnader som verben i Artikel III: *za-/na-/po-/proguglit'* 'googla'.

En hypotes som väglett arbetet med avhandlingen är att aspektuella prefix inte är rent aspektuella eller "tomma" aspektmarkörer. De uttrycker i stället någon semantisk komponent som redan finns i verbstammen. Den här hypotesen kallas "överlappningshypotesen" och syns tydligast i verb med rumsbetydelse och i verb med prefixvariation, där olika prefix understryker olika semantiska nyanser hos verbstammen. Ett smärre antal prefix (*za-*, *s-*, *pro-* och *ot-* samt suffixet *-nu-*) har en mängd olika betydelser och används i många verb med olika betydelser, medan andra, "mindre" prefix används för ett mindre antal verb med mer specifik, inte sällan rumslig, betydelse.

NYCKELORD: ryska, lånord, verbaspekt, prefigering, suffigering

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Gustaf Olsson



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Gustaf Olsson was born in Brunflo, Sweden, in 1988. He has a BA in Economics and Russian language from the University of Tromsø (2012) and a MA in Russian language and literature from Åbo Akademi University (2015). Apart from Russian, Gustaf has studied English, German, Ukrainian, and Finnish.

Photo: Ekaterina Pasmor

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List of Original Publications

This dissertation is based on the following original publications, which are referred to in the text by their Roman numerals:

- I Olsson, G. (2018). The Formation of Aspectual Pairs of Borrowed ova-verbs in Russian. *Scando-Slavica*, 64(2), 228–242.
<https://doi.org/10.1080/00806765.2018.1525312>
- II Olsson, G. (2021). How Recently Borrowed Verbs in Russian Form Perfective Aspect: an Experimental Approach. *Slověne*, 10(1), 392–413.
<https://doi.org/10.31168/2305-6754.2021.10.1.17>
- III Olsson, G. (2019). Searching and Finding the Meaning of New Verbs: Prefix Variation of the Russian Verb гуглить ‘to google’. *Poljarnyj vestnik*, 22, 40–56.
<https://doi.org/10.7557/6.4683>
- IV Olsson, G. (2021). Variativnost’ prstavok v russkix vidovyx parax: nekotorye dopolnenija k teme. *Vestnik Tomskogo gosudarstvennogo universiteta*, 469, 44–52.
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1 Introduction

Some works about Russian verbal aspect start by apologizing for the choice of topic. “What more is there to be said about the essence of aspect and tense?” asked Nils Thelin in 1978 (Thelin 1978, 11). In 2011, Vladimir Plungjan began an article with the words “so much has already been written about Slavic aspect, that yet another article needs at least some initial explanations (bordering on excuses and justifications) from the author”¹ (Plungjan 2011, 290). In contrast with these authors, I do not think the topic of this dissertation needs an apology. The topic is the formation of aspectual pairs of new loan verbs in Russian, and as long as Russian borrows verbs from other languages, there will be something new to say about verbal aspect.

The term “aspectual pair” refers to two verbs with similar or identical lexical meaning but different aspectual meaning. An example is the imperfective *stroit*² ‘build’, which has a corresponding perfective verb: *postroit* ‘build’. Imperfective verbs, like *stroit*, can express, broadly speaking, the action in itself, its process, duration or repetition, whereas perfective verbs, like *postroit*, stress the result or the completion of the action, or the fact that the action was carried out once.

Russian aspectual pairs are formed in several ways. The two most common are suffixation and prefixation, both of which contain a variety of aspectual suffixes and prefixes. Russian aspectual pairs lack a clear candidate for being a “regular” form, and this raises the question of how Russian speakers form aspectual pairs from loan verbs from languages that do not express aspect morphologically the same way Russian does.

The data from this dissertation indicate that most loan verbs form aspectual pairs via prefixation, and prefixed aspectual pairs have been the subject of most

¹ This and all other translations are my own. Original: “О славянском виде написано так много, что очередная статья на эту тему требует как минимум предварительных объяснений автора (граничащих скорее с извинениями и оправданиями).”

² In the summary, Russian words are transliterated according to the so-called scientific system. A table can be found on Wikipedia: https://en.wikipedia.org/wiki/Scientific_transliteration_of_Cyrillic (last retrieved 21 March 2022). Longer quotes in footnotes are in Cyrillic and in each article, I use the system endorsed by the journal.

debate and controversy among aspectologists. One much debated question is whether prefixed aspectual pairs are “real” pairs or not, or if only suffixed pairs can be regarded as real aspectual pairs. Another question, one that is relevant only if one regards prefixed pairs as real aspectual pairs, is whether there are any “purely aspectual” prefixes. One viewpoint in that debate is to regard aspectual prefixes as semantically “empty”, whose only task is to mark for perfective aspect (Vinogradov 1947, Tixonov 1964 and 1998, Avilova 1976, Cubberley 1982). This view is called the “empty prefix hypothesis” in this dissertation. The second view is that the base verb in a prefixed aspectual pair shares some semantic element with the prefix with which it forms a corresponding perfective, and this creates an “illusion” of a purely aspectual meaning (Vey 1952, van Schooneveld 1958, Janda et al. 2013). The latter assertion is referred to as the “overlap hypothesis” in this dissertation. The name “overlap hypothesis” was coined by the research project *Exploring Emptiness*³, whose participants have written an entire book in defence of the overlap hypothesis: *Why Russian Aspectual Prefixes Aren't Empty: Prefixes as Verb Classifiers* (Janda et al. 2013). However, prefixation of loan verbs is only briefly mentioned in that book (Janda et al. 2013, 11), making this question worthy of further research.

Some recent loan verbs and their aspectual correlates can be found in dictionaries of neologisms, e.g. Krongauz (2016) and the internet dictionary Wiktionary⁴, but there is a paucity of systematic studies on aspectual pairs of modern loan verbs in Russian. The most comprehensive studies to date have been made on a restricted and slightly older material, namely borrowed verbs that end on *-ovat'* or *-evat'* in the infinitive (Mučnik 1966, Avilova 1967 and 1968; Šeljakin 1979; Čertkova & Čang 1998, Jászay 1999). Verbs in other conjugational classes have been much more sparsely studied; exceptions are two MA theses (Gjervold 2014, Gordeeva 2018) on the prefixation of colloquial loan verbs, and a study by Elena Zemskaja (2008), who discusses loanwords and loan verbs used in Russian as a diaspora language in the USA, Germany, France, and Finland. This dissertation investigates different types of recent loan verbs and their aspectual pairs, as well as similarities and differences between the different classes of verbs.

1.1 Research Questions

The two main ways to form aspectual pairs in Russian are suffixation and prefixation, and there is a plenitude of both aspectual suffixes and prefixes. This dissertation aims at answering the following questions: Do loan verbs form aspectual

³ <http://emptyprefixes.uit.no/>

⁴ <https://ru.wiktionary.org/>

pairs in Russian? If yes, how? In verbs that form aspectual pairs, which verbs take which aspectual affix and why?

From a theoretical point of view, loan verbs are important with regard to the “empty prefix hypothesis” vs. “overlap hypothesis” discussion noted in the section above. Are prefixes ever “purely aspectual”, semantically “empty” markers of perfective aspect, or do they keep some trace of meaning even in aspectual pairs? If they are empty, which mechanism or mechanisms are able to describe the choice of aspectual prefix in new verbs? Can the overlap hypothesis describe the choice of aspectual prefix in new verbs, is there one “regular” prefix, or is the choice of aspectual prefix or suffix random?

The question how aspectual pairs are formed is also important for learners of Russian; textbooks and grammars aimed at a foreign audience usually present the readers with lists of aspectual pairs formed using suffixation or prefixation, but without explaining whether there is a system in the choice of aspectual affix. Students of Russian as a foreign language might thus get the impression that they have to memorize each individual aspectual pair (Endresen et al. 2012, 233). If the overlap hypothesis is a good explanation of how prefixed aspectual pairs are formed, the task of learning aspectual pairs could be made easier.

1.2 Structure of the Dissertation

This dissertation consists of four articles and a summary. The main research is presented in the articles, which consist of two corpus studies, one observational study of dictionaries and one experimental study. The summary does not contain any new research; instead, it summarizes the results of the research and discusses overarching theoretical questions about loanwords, loan verbs, verbal aspect, and prefixation in Russian. The next section, Section 2, describes the methodology and material used in this dissertation. Section 3 deals with issues regarding word borrowing and loan verbs in general, the formation of Russian loan verbs, and how they conjugate according to other categories than aspect. Section 4 discusses verbal aspect and aspectual pairs in Russian, and the following Section 5 summarizes the results of the dissertation, focusing on verbal prefixes and suffixes. The last section of the summary, Section 6, contains the conclusions of my research and a few words on possible directions for future research. The summary is followed by the four articles: the focus of the dissertation. The four articles are followed by an Appendix, which contains all verbs from the articles, together with a compilation of verbs and aspectual pairs from other sources that did not find its way into any of the articles.

1.3 Terminological Issues

This dissertation deals with aspectual pairs and throughout the dissertation I will use precisely this term (i.e. *aspectual pair*). Other terms for the same phenomenon have been proposed, for example *vidovye partnëry* ‘aspectual partners’ (Mende et al. 2011), but they have not been successful enough to replace “aspectual pair”.

Ideally, an aspectual pair consists of one imperfective and one perfective verb with the same lexical meaning but different aspectual meaning. A classic example is *pisat’–napisat’* ‘write’. To refer to the one or other member of an aspectual pair, I generally use the term *corresponding imperfective* (i.e. *pisat’* to *napisat’* in the current example) or *corresponding perfective* (i.e. *napisat’* to *pisat’*). If the specific aspect is irrelevant in the context, I use *aspectual correlate* to refer to either “corresponding imperfective” or “corresponding perfective”. A synonym to “corresponding perfective” is *natural perfective*, coined by Janda (2007). The term “natural perfective” is especially useful when comparing natural perfectives to *specialized perfectives*, also from Janda (2007). A specialized perfective is a prefixed perfective verb that refers to a different kind of action to its non-prefixed imperfective base verb⁵. For instance, the natural perfective of the imperfective base verb *pisat’* ‘write’ is *napisat’* ‘write’, whereas the prefixed verbs *opisat’* ‘describe’, *perepisat’* ‘rewrite’, and *podpisat’* ‘sign’ are examples of specialized perfectives. Another important term is *overlap hypothesis*, which refers to the idea that prefixes in prefixed aspectual pairs keep their meaning but share some semantic element with the base verb, which creates an illusion of the prefix being semantically empty. The opposite hypothesis, i.e. that prefixes do not add any meaning besides the aspectual (Tixonov 1964; Cubberley 1982; Vinogradov 1947, 533–535; Avilova 1976, 154; Tixonov 1998, 31–32), is called the *empty prefix hypothesis*. In Russian, the overlap hypothesis is sometimes referred to as *ëffekt Vëja–Sxonevel’da* ‘Vey–Schooneveld effect’, after Vey (1952) and van Schooneveld (1958). The hypothesis and its origins are discussed in more detail in section 5.3 *The Overlap Hypothesis*.

⁵ Note that “specialized perfectives” in Janda’s terminology do not include those verbs that traditionally have been called “Aktionsart” (Russian: *sposob glagol’nogo dejstvija*): verbs that express temporal limits of an action without altering the lexical meaning of the verb in other ways (Švedova et al. 1980, § 1413–1414). Examples of Aktionsart verbs are *popisat’* ‘write [for a short while]’ and *progovorit’* ‘talk [for a long time]’. These verbs are in Janda’s system called “complex act perfectives”. The last group in Janda’s system are called or “one-time acts” and refer to acts such as *sglupit’* ‘do a stupid thing’ and *čixnut’* ‘sneeze [once]’. See also Janda et al. (2013, 4).

2 Material and Methods

This section discusses the verbs which I have selected for the dissertation and which I have not selected, and gives an overview of the different ways I have defined aspectual pairs. I also discuss the methodology used in the different articles and the reasons why I chose precisely the research questions that I did.

2.1 Material and Methods

Since there is no dictionary or database that lists all neologisms and loanwords in Russian, I have during my years as a PhD student kept my eyes open for new verbs and noted them whenever they appear. Some sources are dictionaries of neologisms and slang (e.g. Krongauz 2016), the online dictionary Wiktionary⁶, recommendations from friends and colleagues, as well as other linguistic literature (e.g. Avilova 1968, Zemskaja 2008, Gjervold 2013 and 2014, Pertsova 2016, Gordeeva 2018). Some verbs I discovered *en passant* in newspaper articles or radio programmes (e.g. *(za)xarassit* ‘harass’, from Russian *Esquire*⁷).

The definition of aspectual pairs has traditionally been based on the linguistic intuition of native Russian speakers, often with the help of Maslov’s criterion (which is described more closely in section 4.2 *Maslov’s Criterion*). As I am not a native Russian speaker, I have used a variety of quantitative methods: dictionaries, an experiment, corpus data and qualitative interpretation of the corpus data. This is rather an eclectic method to establish aspectual pairs, but all methods have strengths and weaknesses; combining different methods of investigating aspectual pairs is therefore, I think, necessary, especially with verbs that not yet have become firmly established in the language. Articles I and II look at verbs on a macro level, whereas Articles III and IV combine the macro level with micro level investigations of the semantics of individual loan verbs. The methods are described in more detail in the following sections.

⁶ <https://ru.wiktionary.org/>

⁷ <https://esquire.ru/articles/75132-8-glavnyh-slov-2018-goda/#part1> (last retrieved 21 March 2022).

2.1.1 Article I

The topic of Article I is how dictionaries show aspectual pairs of 20th century loan verbs that end in *-ovat'* or *-evat'* in the infinitive. This class of verbs contains many verbs of foreign origin, and is the most studied kind of borrowed verbs in Russian (see, for instance, Mučnik 1966, Avilova 1967 and 1968, Šeljakin 1979, Čertkova & Čang 1998, Jászay 1999, Horiguchi 2018). The verbs I selected for this study come from the list of *ova*-verbs in the Russian version of Wiktionary⁸. From that list, I removed all verbs of Slavic origin, such as *prazdnovat'* 'celebrate' and *issledovat'* 'research', and used the Russian National Corpus⁹ (subcorpus: *osnovnoj korpus* 'main corpus') to further narrow the list of verbs for the study. I selected all borrowed *ova*-verbs that fulfilled two criteria: their earliest use in the corpus had to be between the years 1900 and 1999, and there had to be at least 10 occurrences of the verb in the corpus. This search resulted in 248 verbs, all of which are listed in part 1 of the Appendix.

The next step of the investigation was to look up every verb in nine comprehensive dictionaries, monolingual Russian as well as bilingual (Russian–English, Russian–Swedish, and Russian–German) for aspectual correlates. The most common perfectivizing prefixes in this study were, in descending order, *za-*, *s-*, *pro-*, and *ot-*. Less common were *po-*, *na-*, *o-*, and *raz-*. In the Russian National Corpus, four verbs with corresponding imperfectives formed by the suffix *-yva-* were found.

The advantage of using authoritative dictionaries is that they are edited by linguistically competent editors, so their aspectual pairs should, in principle, be uncontroversial. However, even linguistically competent editors can make controversial choices, which made a section on “Questionable aspectual pairs” necessary in the article. Some dictionaries have a tendency to list aspectual correlates for as many verbs as possible, even for those that are best analysed as imperfectiva tantum (Forsyth 1970, 37). Furthermore, different dictionaries may list different aspectual correlates for the same base verb. One example of the latter phenomenon is the verb *švartovat'* 'moor', which has the corresponding perfective *prišvartovat'* in six different dictionaries, *zašvartovat'* in one, and *ošvartovat'* in three. Recently borrowed verbs are, for self-evident reasons, not listed in old dictionaries, making the dictionary method possible only for verbs that have become established and have existed in the language for some time.

⁸ https://ru.wiktionary.org/wiki/Категория:Глаголы_спряжение_2а

⁹ <https://ruscorpora.ru/>

2.1.2 Article II

Article II describes a novel quantitative and experimental method to investigate aspectual pairs. It is based on an online survey conducted anonymously through the survey tool Webropol¹⁰.

In the survey, I asked 120 native Russian speakers to form corresponding perfectives by rewriting [Verb+Noun] or [Verb+Noun+Preposition+Name] constructions with a *compensator verb*¹¹ into one verb with the same meaning as the [Verb+Noun] or [Verb+Noun+Preposition+Name] construction. One example of an expression with a compensator verb is *otpravljat' èsèmès* 'send an SMS', which means the same thing as the verb *èsèmèsit'* 'text, SMS'. The compensator verb in the given example is *otpravljat'* 'send', and the idea of the survey was that its corresponding perfective verb *otpravit'* 'send' could be used to find the corresponding perfective verb of *èsèmèsit'*. In other words, *otpravit' èsèmès* would result in, for example, *èsèmèsnut'* (to take the most common answer among the respondents).

This method was applied to 19 perfective verbs in total. Included in the survey besides *otpravit' èsèmès* 'send an SMS' were constructions like *napisat' tvit* 'write a tweet', *zadat' poisk v Google* 'make a search on Google', and *sdelat' selfi* 'take a selfie'. In order to reduce any possible social-desirability bias (the tendency of participants to answer what they think the interviewer wants to hear, rather than what they actually think), the goal of the survey was not explicitly stated. The instructions emphasized whether the participants thought the verb exists. The participants were informed that they could write "X" if they thought that the word did not exist in Russian. To reduce any possible influence of the order of the questions (i.e. verbs) in the survey on the total results, the questions were set to appear in random order, i.e. in different order for different participants. Included in the survey were also 16 fillers, irrelevant questions, to disguise the aim of the survey. These were either imperfective verbs (e.g. *delat' grimasy* 'make faces' – *grimasničat'* 'make faces'), words with a Slavic root (e.g. *est' zavtrak* 'eat breakfast' – *zavtrakat'* 'breakfast, have breakfast') or constructions that lack an established synonymous verb in contemporary standard Russian (e.g. *zanimat'sja jogoj* 'practise yoga' – *?jožit'sja* 'yoga, practise yoga').

The most common aspectual affix among the verbs in this survey was *-nu-*, which was the most common aspectual affix for 10 out of 19 verbs, followed by the prefix *za-* with 5 verbs and, at last, *s-*, *pro-*, and *ot-* with 1 verb each. One verb in the survey, *installirovat'* 'install', was given without any specific aspectual affix by most respondents. As it ends on *-ovat'*, it can be treated as a biaspectual verb, but some

¹⁰ <https://webropol.com/>

¹¹ From Russian *glagol-kompensator* (Zolotova et al. 1998, 72).

respondents gave a prefixed verb, and the second most common answer to this particular verb was *proinstallirovat'*.

All verbs in the study showed some degree of prefix variation (or rather *affix* variation). The variation ranged from three different perfectives (*lajknut'*, *zalajkat'*, and *otlajkat'* – proposed aspectual correlates to *lajkat'* ‘like’) to seven (*zaguglit'*, *poguglit'*, *proguglit'*, *naguglit'*, *vguglit'*, *oguglit'*, and *otguglit'* – for *guglit'* ‘google’). This result influenced the choice of research questions for the following articles, Articles III and IV.

2.1.3 Article III & IV

In part due to the results from the survey in Article II, the focus of Articles III and IV was *prefix variation* in loan verbs. Prefix variation refers to a simplex imperfective verb (i.e. a verb without added prefixes and suffixes) having two or more corresponding perfectives, formed via prefixation, with similar but not necessarily identical meaning. Article III is devoted to a single verb whereas Article IV takes a broader look at prefix variation in Russian and discusses different reasons behind this phenomenon: semantics, stylistics, and diachronic language change.

The verb under study in Article III is *guglit'* ‘google’, with the four corresponding perfectives *zaguglit'*, *naguglit'*, *poguglit'*, and *proguglit'*. Article IV studies *šerit'* ‘share’ with the three corresponding perfectives *zašerit'*, *pošerit'* and *rašerit'*. The main reason why precisely these prefixed verbs were chosen is their higher frequency in the mass-media text database Integrum¹², from which the material for the studies was collected. These verbs were simply more common than other prefixed verbs in the texts from Integrum. While raw frequency is by no means a bulletproof method of establishing aspectual pairs and aspectual correlates (natural perfectives), it is a good starting point for selecting verbs worthy of further study. Natural perfectives are generally far more frequent than other kinds of perfective verbs (Janda et al. 2013, 5).

The method used in both articles to investigate semantic differences between the chosen verbs is *co-occurrence analysis*, or more precisely analysis of the direct objects and adverbs used together with each verb in Russian mass-media texts collected from the mass-media text database Integrum. The idea behind this method is that direct objects and adverbs can uncover smaller or greater semantic differences between near-synonyms. Co-occurrence analysis is one of the more objective ways to investigate semantic differences and similarities between words. By looking at co-occurrences, it is possible to discover different meanings of words and draw

¹² <http://integrumworld.com/>

conclusions that are not based on linguistic intuition alone. The relevant co-occurrences in the articles were selected and analysed manually, as Integrum does not have automatic parsing of texts, only plain texts.

The interpretations drawn from the results, described in more detail in the articles and in section 5.5 *Prefix Variation*, are generally based on the existence or non-existence of certain co-occurrences in the mass-media texts. The verbs *zaguglit'* and *naguglit'* were found together with the direct object *otvet* 'answer', which shows that these verbs are possible to use in the sense 'find something (using Google)'. *Vopros* 'question' was found as a direct object for *poguglit'*, *proguglit'*, and *zaguglit'* but not for *naguglit'*. The non-existence of *otvet* 'answer' or similar words together with the verbs *poguglit'* and *proguglit'* is a sign that these verbs are restricted to the meaning 'search for something (using Google)', *naguglit'* is restricted to 'find something (using Google)', and only *zaguglit'* can be used in both meanings.

2.2 Limitations

Since verbs are a productive, and very numerous, part of speech in Russian, it is important to stress that I make no pretence of being able to study *all* loan verbs in Russian. In theory, it might be possible to compile a list of all Russian loan verbs that have been used a certain number of times by a certain number of number of people up until a certain point in time, but for practical reasons the number of loan verbs is far too vast for one person to collect.

First, some verbs are very colloquial and therefore seldom used in print. A relative over-reliance on written language and difficulties of collecting and analysing spontaneous speech are perpetual problems in linguistics and this dissertation, almost exclusively based on written sources, is no exception. However, with the advent of the internet a number of new and colloquial registers of writing have appeared and become visible for a larger audience, presumably making the differences between written and spoken language less strict in the 21st century than earlier (McCulloch 2020, 2).

Second, some loan verbs are very rare. There is a fuzzy line between occasionalisms, i.e. words invented on the fly, and established loanwords, while recent loanwords seldom reach the list of the most frequent words overall in a language. The first loanword in the frequency dictionary *Častotnyj slovar' sovremennogo russkogo jazyka* is *sistema* 'system', found in place 146, and the first borrowed verb is *organizovat'* 'organize', in place 1852 (Ljaševskaja & Šarov 2009, 421 and 451)¹³. Some loanwords are, however, much rarer than others and cannot be found in any

¹³ Also available online at <http://dict.ruslang.ru/freq.php> (last retrieved 21 March 2022).

dictionary, even for very specific jargons. For instance, at a Swedish-language university, I once heard a group of Russian-speaking students use the verb *zaanmelit'sja*, coined from the Swedish verb *anmäla sig* ‘register [oneself]’. This perfective verb cannot be found on the internet, but by removing the prefix *za-*, we get the imperfective *anmelit'sja*, which gives one hit in the Google search engine¹⁴. Occasionalisms are interesting in their own right, but they are not in focus of this dissertation. No other verb in this dissertation is thus as esoteric as *anmelit'sja*.

Last, many new verbs are used only among small groups of Russian speakers. Such groups can be, for instance, Russian speakers living in a particular country (e.g. Germany, where the verb *putsat'* ‘clean, work as a cleaner’, from German *putzen* ‘clean’, is found), or people in subcultures, for example those who play computer games (e.g. *ovnit'* ‘own, pwn, defeat, dominate (in computer games)’), etc. Such verbs are presumably unknown to most Russian speakers and therefore not in the scope of this study¹⁵.

Besides the abovementioned groups, there are other types of verbs that are new but not in the scope of this study. I do not study old verbs with Slavic roots that recently have taken on a new meaning, such as *zavisat'–zavisnut'*, which originally meant (and might still mean) ‘hover above’, but within computing means ‘hang, stop responding (about a computer program)’. Neither do I study calques from other languages, like the rather old *vygljadet'* ‘look, seem’ (from German *aussehen* ‘look, seem’) or the more recent *razvidet'* ‘un-see (internet slang, expressing a wish to forget something unpleasant that the speaker has just seen)’ (Krongauz 2016, 103). Loanblends, words that combine foreign and Russian elements, are also not in scope, for example *fejsdel'ničat'*, which is formed by replacing the prefix *bez-* in *bezdel'ničat'* ‘do nothing’ with *fejs-*, from the first syllable of *Fejsbuk* ‘Facebook’. The resulting verb means ‘waste time on Facebook’ and was one of the contestants in the Russian “Word of the Year 2019” contest¹⁶.

Many of the verbs mentioned in this dissertation are likely to be forgotten at one point or another in the future, so one may therefore ask what use a dissertation about them can contribute. Gretchen McCulloch argues in her book *Because Internet* (McCulloch 2020), about modern English internet language and online culture, that complaining that one’s material one day will be out of date is to miss the point of gathering modern words and expressions. Today’s special words and constructions

¹⁴ From http://russiansinsweden.blogspot.com/2016/02/blog-post_21.html (last retrieved 21 March 2022).

¹⁵ Some professional verbs are nonetheless found in the Appendix.

¹⁶ <https://snob.ru/profile/27356/blog/162528> (last retrieved 1 November 2021; in March 2022 the original blogpost was removed but it can still be accessed via <https://web.archive.org/web/20220120150043/https://snob.ru/profile/27356/blog/162528/>).

“provide a snapshot of a particular era and a lens that we can use to look at future changes” (McCulloch 2020, 270). Just as some linguists today study the language changes of yesterday, some linguists of tomorrow will probably be interested in how the Russian language was changing in the beginning of the 21st century.

Despite all the aforementioned limitations, this dissertation contains a large number of loan verbs from different sources, belonging to different semantic spheres and to different conjugational classes, which should give a broad and useful picture of the formation of aspectual pairs in contemporary Russian. It would be futile to try to compile a complete list of loan verbs in Russian, but this dissertation is the most comprehensive work on this topic to date; the Appendix contains almost 500 verbs.

Modern borrowed verbs and their aspectual pairs provide a snapshot of a subset of today’s Russian language, which is interesting not only in and of itself, but also has relevance for the fields of aspectology and Russian morphology in general. Russian aspect and Russian verbal prefixation have been the focus of a vast number of scholarly works (all of which I make no pretence of covering). Most works and theories are, however, based primarily on “old” verbs, verbs that can be traced back to proto-Slavic or Old Russian; in other words, verbs which we do not know whether, or when, they were borrowed. While this dissertation does not claim to bring new insights to the study of aspectology and Russian aspect as such, it brings new material into the discussion, and proves that aspect is a living and productive grammatical category in modern Russian.

3 Loanwords

This section discusses the definitions of *loanword* and *loan verb* and describes the different conjugational classes loan verbs in Russian belong to. Russian has a long history of word borrowing, including the borrowing of verbs (Avilova 1967 and 1968). Despite sporadic puristic concerns of loanwords “contaminating” supposedly “pure” languages, devoid of alien elements, loanwords by themselves do not seem to either endanger or disrupt the basic structure of languages. (See for instance Bańko et al. (2021) for a discussion of this topic with a focus on loanwords in Polish, and Aitchison (1991, 113–117) for a discussion of word borrowing within the broader lens of language change.) Loanwords exist in all known languages, word borrowing has been a fact of languages as long as we know and they form a considerable part (sometimes over 50 %) of the everyday vocabulary in most languages (Haspelmath & Tadmor 2009, 55–58).

3.1 Loanwords

Loanwords, in a broad sense, are words that at one point in time have gone from one language (so-called *donor language*) to another language (so-called *recipient language*) without translation, and become at least partly established in the recipient language. It has been argued that *transfer* or *copying* would be a more suitable metaphor than “borrowing”, as a language that borrows (i.e. *transfers* or *copies*) a word from another language does not remove the word in question from the donor language (Haspelmath & Tadmor 2009, 37; Aitchison 1991, 113). The terms *loanword*, *borrowed word* and *borrowing* are nonetheless used throughout this dissertation, since they are already well established.

Loanwords and neologisms are often used as study objects of linguistic productivity, as loanwords must adapt grammatically into the recipient language, which (unless the languages are very closely related) has other grammatical rules than the donor language¹⁷. Of the vast literature on orthographic, morphological or

¹⁷ Borrowing of inflectional morphology, so-called “grammatical borrowing” is much rarer than lexical borrowing, but not unheard of (Matras 2014).

syntactical adaptation of loanwords or neologisms, one can mention, for instance, gender assignment of nouns in Swedish (Mickwitz 2010), plural endings of nouns in Norwegian (Graedler 1998), argument structure in Icelandic verbs (Barðdal 2008), orthographic adaptation in Russian (Nečaeva 2011), verb conjugation in Russian (Pertsova 2016), and genitive singular case endings of masculine nouns in Polish (Dąbrowska 2008).

3.2 Loan Verbs

Not all words are equally borrowable. Content words like nouns or adjectives tend to be more easily borrowed between languages than function words like prepositions or conjunctions. An often-made assumption is that verbs are less prone to be borrowed than nouns, and the number of borrowed nouns is in fact greater than the number of other kinds of borrowed words in most languages (Haspelmath & Tadmor 2009, 61; Wohlgemuth 2009, 4).

One proposed reason as to why verbs are more difficult to borrow is that verbs tend to need more morphological adaptation than other parts of speech (Haspelmath & Tadmor 2009, 61–63). However, differences between languages are vast; Russian is not a language in which verbs are especially difficult to borrow (as the comprehensive list of loan verbs in the Appendix demonstrates), despite Russian verbs having extensive inflectional paradigms.

In an early article on the topic of verb borrowings, Moravcsik (1975) argues that borrowed verbs are not borrowed as complete verbs, but rather as nouns, which are formed into verbs with a “verbalizer” in the recipient language. While this seems to be the case for most verbs in Russian (this is also the idea behind the experiment described in Article II), it is possible to find a few verbs which lack a corresponding noun. Two examples of verbs without a corresponding noun are *šprexat* ‘speak [often a foreign language]’, which comes from the German verb *sprechen* ‘speak’¹⁸, and *muxlevat* ‘cheat’, from German *mogeln* (from Article I). For a thorough discussion of this issue of loan verbs in general, see Wohlgemuth (2009, 278–284). For the purposes of this dissertation, it is not important whether the verb was borrowed as a verb or derived from a borrowed noun; all are regarded as borrowed verbs.

¹⁸ The verb *sprechen* ‘speak’ does have a related noun in German: *Sprache* ‘language’, where the first vowel is /a/ and not /e/. This implies that *šprexat* really comes from the verb *sprechen* and not from the noun *Sprache*.

3.3 Conjugational Classes of Loan Verbs in Russian

Aspect is not the only grammatical category related to Russian verbs that is characterized by a rich morphology. Borrowed verbs must also adapt into one of many existing conjugation patterns. There are 16 different conjugational patterns of verbs in Russian, according to Andrej Zaliznjak (1977).

According to the material in this dissertation, imperfective loan verbs in Russian can belong to three different conjugational classes. The first type consists of verbs that (in the infinitive) end in *-ovat'* or *-evat'*, type 2 in Zaliznjak's system (Zaliznjak 1977, 92). Many of these verbs are widespread enough to be listed in printed dictionaries aimed at a general audience. The second type is verbs ending in *-it'*, type 4 in Zaliznjak's (1977, 98) system, and the third type is verbs ending in *-at'* (type 1 in Zaliznjak's (1977, 91) system). A fourth type, type 3 in Zaliznjak (1977, 94), with verbs ending in *-nut'* is also productive in modern loan verbs, but all loan verbs in this class are perfective and are thus discussed in the section on suffixation 5.1.1 *The Perfectivizing Suffixes -nu- and -anu-*. Verbs with this suffix are not what I call "base verbs", i.e. verbs without a specific perfectivizing or imperfectivizing affix.

There are, according to Gagarina (2002, 154), four "fully productive" conjugational classes in modern Russian, identical to those mentioned above, and a fifth, "slightly productive" type, namely verbs ending in *-et'*. This conjugation type is restricted to verbs meaning 'become something, turn into something', like *duret'* 'go crazy' and the more recent loanblend *fanatet'* 'become a fan, be into something'.

The *-ovat' / -evat'* class of verbs has historically been the conjugational class of choice for verbs of foreign origin (Avilova 1967 and 1968). It is characterized by the shift of *-ova-* into *-u-* and *-eva-* into *-ju-* in the non-past tense. Verbs like *organizovat'* 'organize' and *gorevat'* 'mourn' thus become *ja organizuju* 'I organize' and *ja gorjuju* 'I mourn' in the first person singular non-past tense. These verbs often correspond to German verbs that end in *-ieren* in the infinitive. The Russian *konstruirovat'* corresponds to German *konstruieren* 'construct', *liberalizovat'* to *liberalisieren* 'liberalize' etc. In recent decades, more and more loan verbs are assigned to the *-at'* and *-it'* classes. These more recent verbs are generally borrowed from English and are more often associated with modern slang and computer terminology, whereas *ova-*verbs are more commonly used in official and professional styles.

Phonological factors also play a role in the determination of which conjugational class a loan verb will take. If the verb root ends in /k/, the ending is *-at'* and (almost)¹⁹

¹⁹ Some verbs derived from nouns ending in /k/ do have the ending *-it'*, but in those verbs, the /k/ is palatalized to /č/, e.g. *fidbèk* 'feedback' → *fidbèčit'* 'give feedback'.

never *-it'*, as seen in examples like *lajkat'* 'like, press the "like" button on social media sites or apps', *čekat'* 'check', *xakat'* 'hack [a computer program]', and *bukat'* 'book, reserve'. The same is true of /g/ and /x/, as seen in verbs like *tegat'* 'tag, label' and *šprexat'* 'speak [often a foreign language]'. A few other verbs also take the *-at'* ending, for instance *juzat'* 'use' and the aforementioned *putsat'* 'clean'. All in all, however, the *-it'* ending is the default for loan verbs in contemporary colloquial Russian²⁰, like *banit'* 'ban, exclude (often on the internet)', *guglit'* 'google', *instagramit'* 'instagram', *spoilert'* 'spoil, reveal the ending of a story' and *flejmit'* 'flame (ignite a heated discussion on the internet)'. A few verbs can have alternative conjugations, with different stylistic flavour, for example, *ignorirovat'* 'ignore' and the more recent slang verb *ignorit'* 'ignore', or *kserokopirovat'* and *kserit'* 'photocopy'. The *ova*-verbs are as a rule older and belong to neutral and/or official styles, whereas verbs ending in *-it'* or *-at'* are newer and more associated with colloquial speech and slang.

²⁰ Another tendency has been found in the speech of Russian-speaking emigrants, so-called "heritage speakers", in Germany and the USA, who prefer the ending *-at'* for loan verbs, e.g. *drajvat'* 'drive' and *šparat'* 'save (from German *sparen*)' (Zemskaja 2008, 646–648). It is possible that the mechanisms behind the choice of conjugational classes of loan verbs behave differently in Russian as a diaspora language than in Russian in Russia and neighbouring Russophone countries, but I leave this question to potential future research. The data in my dissertation point to *-it'* being the most common ending for loan verbs in contemporary colloquial Russian.

4 Verbal Aspect in Russian

Of all grammatical categories related to Russian verbs, aspect has been said to be the most difficult and morphologically diverse (Vinogradov 1947, 477), the most difficult grammatical category to study (Glovinskaja 1982, 47) and it has even been claimed that “chaos” reigns in the field of aspectology (Šatunovskij 2009, 9). Aspect is notoriously hard to define, as both aspects are associated with many different meanings (Glovinskaja 1982, 7–16; Maslov 1984, 48–49; Padučeva 1990, 1–2; Padučeva 1996, 24–31). Verbal aspect in general linguistics can be defined rather abstractly as “different ways of viewing the internal temporal constituency of a situation” (Comrie 1976, 3), or more visually: “aspect profiles the contour of a situation in time” (Dickey 2000, 2) or “aspect [...] is about the *shape* of an event, and one’s *viewpoint* on it” (Pinker 2007, 197 (original italics)). To complicate matters further, there is a lot of cross-linguistic confusion regarding the use and definition of aspect, but this dissertation is only concerned with aspect in modern²¹ Russian.

The following sections aim at giving an overview of the main uses and functions of Russian verbal aspect: the uses and functions of the imperfective and perfective aspects, different types of Russian aspectual pairs, pairless verbs, and secondary imperfectives. Aspect in other languages, as well as aspectuality in language in general is not in the scope of this dissertation.

4.1 Russian Verbal Aspect

Russian has two verbal aspects: imperfective and perfective. A Russian verb in a certain context is either imperfective or perfective. All Russian verbs have aspect and most verbs have a corresponding verb in the opposite aspect, which together constitute an aspectual pair.

The morphologically simplest kind of verb will be called “simplex verb”. Simplex verbs are verbs that consist only of a verb stem, and lacks prefixes or

²¹ For a thorough overview of how aspect and tense were explained in Russian grammars in the early 19th century and earlier, see Rönkä (2005).

suffixes that change the aspect. Almost all simplex Russian verbs are imperfective; examples of simplex imperfective verbs are *čitat'* 'read', *govorit'* 'talk', and *bit'* 'beat'. A few perfective simplex verbs exist, for instance *dat'* 'give' and *kupit'* 'buy'. With the addition of a prefix, a simplex imperfective verb generally becomes perfective, like *pro-čitat'* 'read' or *u-bit'* 'kill'. By adding an imperfectivizing suffix, a prefixed perfective verb can be made imperfective again, in a process called *secondary imperfectivization*, e.g. *u-bi-va-t'* 'kill' or *pro-čit-yva-t'* 'read through'.

Below is a rough outline of the most important morphological types of imperfective and perfective verbs:

Table 1. Types of Imperfective Verbs

Types of imperfective verbs	Examples
non-prefixed simplex verbs	<i>guljat'</i> 'stroll', <i>xotet'</i> 'want'
suffixed verbs with a prefix	<i>osmatrivat'</i> 'check', <i>ubirat'</i> 'take away, clean'
suffixed verbs without a prefix	<i>davat'</i> 'give', <i>spasat'</i> 'save'

Table 2. Types of Perfective Verbs

Types of perfective verbs	Examples
prefixed verbs	<i>zaxotet'</i> 'want', <i>ubrat'</i> 'take away, clean'
nu-suffixed verbs	<i>čixnut'</i> 'sneeze', <i>stuknut'</i> 'knock'
non-prefixed simplex verbs	<i>dat'</i> 'give', <i>spasti</i> 'save, rescue'

In the following two sections, I describe the main characteristics of both aspects, beginning with the perfective aspect.

4.1.1 Perfective Aspect

Of the two aspects, the perfective aspect is, on the whole, the easiest to explain. It has fewer and more restricted uses than the imperfective aspect and most perfective verbs have some sort of morphological marking in the form of a perfectivizing prefix or suffix, whereas most simplex base verbs, i.e. verbs without special prefixes and suffixes, are imperfective. For this reason, I start with the perfective aspect.

The perfective aspect is by many scholars regarded as (semantically) *marked* in opposition to the imperfective (Forsyth 1970, 347; Jakobson 1971, 6; Isačenko 1975, 347; Avilova 1976, 21; Maslov 1984, 72; Dahl 1985, 75–76; Šatunovskij 2009, 10–11). The history of “markedness” in linguistics is long and complicated; a multitude of definitions has been proposed, and not all linguists think it is a valid concept (e.g. Haspelmath 2006). Nonetheless, “markedness” starts from the observation that some

words or word forms are felt to be more “basic” or more “natural” than others, and that the other, non-basic word or word form has one or several elements that the “base form” lacks. The marked member is the less basic or more specific form. The idea that the perfective aspect is marked thus means that the perfective aspect has some feature or features that the imperfective aspect lacks.

Proposed elements of the perfective aspect that would make it the marked member are, for example ‘telicity’, ‘completedness’, ‘punctuality’ or ‘step into a new state’ (Zaliznjak et al. 2015, 21). The telicity or completedness of perfective verbs mean that they refer to an action as a completed whole, the natural endpoint of the action described by the corresponding imperfective. The natural endpoint of the imperfective *pisat’* ‘write’ is the perfective *napisat’*, which implies that the writing is finished. The assertion that perfective is the more specific of the two Russian aspects is common, but not universal; Gennadij Zel’dovič (2012, 27–33) presents a number of possible arguments in favour of treating the perfective as the basic, non-marked member.

Some perfective verbs focus not so much on the natural endpoint of an action, but rather express a short but nonetheless complete one-off act. Many *nu*-suffixed verbs belong to this group, such as *stuknut’* ‘knock [once]’ and *čixnut’* ‘sneeze [once]’, whose corresponding imperfectives *stučat’* and *čixat’* refer to the repetition of many instances of *stuknut’* vs. *čixnut’*.

The meaning ‘step into a new state’ can refer either to a sudden step into a new state or to the endpoint of a gradual step into a new state (Padučeva 1990, 7). An illustrative example from Article I is the perfective verb *zagermetizirovat’* ‘seal’, expressing the natural endpoint of the process *germetizirovat’* ‘seal (place in a sealed container)’. *Zagermetizirovat’* implies that the action ‘seal’ is finished and that whatever the speaker was sealing now is in the new state of being sealed²². The leap into a new state can also refer to a sudden beginning of a state, like *ponjat’*^{pf} ‘understand’, which refers to the moment when one starts to *ponimat’*^{impf} ‘understand’, i.e. the moment when one goes from non-understanding to understanding.

Some scholars view perfective verbs as a concrete “point in time”, but a more fitting metaphor than small and homogeneous “points” might be to liken perfective verbs to “blobs”. Blobs have defined outer limits but can, unlike points, be extended in space and be complex on the inside: “the perfective reduces a situation to a blob, rather than to a point: a blob is a three-dimensional object, and can therefore have

²² Kuznetsova (2015) makes a similar argument with regard to the pair *gustet’–zagustet’* ‘get dense’: “The prefix *za-* usually produces a perfective that denotes that the subject achieved a final point on the scale of feature realization; e.g. *zagustet’* ‘get dense’ denotes a final point on the scale of being dense” (Kuznetsova 2015, 18).

internal complexity, although it is nonetheless a single object with clearly circumscribed limits” (Comrie 1976, 18).

From a purely morphological perspective on markedness, both imperfective and perfective verbs can be marked. In prefixed pairs like *stroit’–postroit’* ‘build’, the perfective has an additional prefix that the imperfective lacks, whereas suffixed pairs like *perestraivat’–perestroit’* ‘rebuild’ has extra morphological marking (in this case a suffix) on the imperfective verb *perestraivat’*.

The assertion that the perfective is the marked, non-default aspect is often made by looking at verbs in isolation, without context. It does not necessarily mean that perfective verbs always are marked. Different contexts can have different marked members (see Swan 1979). In some contexts, the perfective aspect is the standard and the imperfective would be marked, whereas in other contexts, the imperfective is standard and the perfective marked. Zaliznjak et al. (2015, 21–22) also argue that “markedness” is not a fruitful term to use with regard to Russian aspect. Both aspects have a number of characterizing traits that make it difficult to call one or the other aspect marked *as such*.

4.1.2 Imperfective Aspect

The last section claimed that the perfective aspect is easier to characterize than the imperfective. The best definition of the imperfective aspect is therefore, perhaps, “everything that the perfective aspect is not”. If the perfective aspect stresses the result of an action, the imperfective does not stress the result of the action. There might be a result nonetheless, but by using an imperfective verb, the speaker chooses not to stress that fact. If the perfective aspect implies that an action was carried out once, the imperfective aspect implies that the action took place more than once, or that the action was indeed carried out once, but without stressing that fact. If a perfective verb refers to a step into a new state, the imperfective can refer to the way up to the step, to the state that has come into existence after the step, or to repeated occurrences of steps into a new state. A way up to a new state can be, for example, *umirat’* ‘die: be in the process of dying’, whose natural endpoint is the perfective *umeret’* ‘die: lose one’s life’. An example of repeated steps into a new state is *ja pjat’ raz umiral* ‘I died five times (in the context of computer games, where the player can die in the game and then start the game anew)’. Expressing repetition is sometimes possible with perfective verbs, when a series of identical actions is seen as one single event, for example *on obernulsja neskol’ko raz* ‘he turned round several times’ (Forsyth 1970, 12), with the perfective verb *obernut’sja* ‘turn round. Such examples notwithstanding, the imperfective aspect seems to be the default choice when the speaker wishes to convey a repeated action.

A special use of the imperfective aspect is the so-called *obščefaktičeskoe značenie* (Padučeva 1996, 32–52; Šatunovskij 2009, 137–192), which sometimes can replace a perfective verb. It is called ‘general-factual meaning’ in English (Dickey 2012). The general-factual meaning of the imperfective aspect asserts that an action simply took place at some point in the past. For instance, the imperfective construction *ja el moroženo* ‘I ate ice cream’ can express the same matter of fact as the perfective *ja s’el moroženo* ‘I ate ice cream’, where the ice cream is completely eaten, but in the general-factual meaning *ja el moroženo* the completeness is not stressed. Consequently, the general-factual meaning of the imperfective aspect can be seen as an indication of the imperfective aspect being the more “basic”, or “unmarked”, form of Russian verbs.

A number of scholars have described the difference between imperfective and perfective verbs by metaphor. Aleksandr Isačenko (1975, 348) explains that by using a verb in the imperfective aspect, the speaker shows a course of events as seen by the speaker “from the inside”; the speaker sees the unfolding but can neither see the beginning nor the end of the action. By using the perfective aspect on the other hand, the speaker describes the whole course of events “from the outside”, and the course of events is seen in its entirety, as a whole.

Laura Janda (2003 and 2004) argues that the grammatical category of aspect in Russian and other Slavic languages is grounded in human experience and that aspect metaphorically compares verbs with different kinds of physical matter: “PERFECTIVE IS A DISCRETE SOLID OBJECT versus IMPERFECTIVE IS A FLUID SUBSTANCE” (Janda 2004, 471). Imperfective verbs behave like substances, like fluids or gases, whereas perfective verbs behave like concrete, solid objects such as rocks or boxes. Objects have concrete, outer limits and can be counted, whereas substances do not have concrete limits and cannot be counted. Objects can be stacked on one another, substances cannot. Objects can exist within another substance but nothing can exist inside a solid, hard object (at least not in our everyday experience). Metaphorically, the same is true for perfective verbs; the action expressed by a perfective verb can take place within the action expressed by an imperfective verb, but not the other way around. The sentence *ja gotovil^{impf.} obed kogda ona vošla^{pf.} na kuxnju* ‘I was cooking lunch when she entered the kitchen’ means that the entering, expressed by the perfective *vošla* ‘entered’, is carried out and completed during (or “within”) the time of the cooking, expressed by the imperfective *gotovil* ‘cooked, was cooking’.

Perfective verbs thus describe concrete, whole actions and can be compared to concrete objects, which have a definite starting point and/or endpoint. Imperfective verbs, on the other hand, express the action in itself, without explicit focus on its endpoint or its result. Imperfective verbs can also stress the repetition of an event and they can be likened to fluids or substances, which lack crisp boundaries.

4.2 Maslov's Criterion

Since there are many affixes that can form aspectual pairs, it is seldom possible to say whether two particular verbs form an aspectual pair or not by just looking at them. Aspectual pairs are instead defined by semantic criteria. The, perhaps, most famous test to decide whether two verbs are an aspectual pair or not is called *Maslov's criterion*; *kriterij Maslova* in Russian, named after the linguist Jurij Maslov (Maslov 1984, 53). Maslov's criterion says that if a perfective verb in the past tense can be substituted by an imperfective verb in the historical present without altering the meaning of the sentence, the two verbs constitute an aspectual pair.

Below is an example of how Maslov's criterion can look, taken from Zaliznjak et al. (2015, 57). The first sentence contains three perfective verbs used in the past tense. The second sentence means the same as the first sentence, but is rewritten into the historical present, using the perfective verbs' imperfective correlates in the present tense. The aspectual pairs in the example are *vyxodit'–vyjti* 'walk out', *lovit'–pojmat'* 'catch', and *prinosit'–prinesti* 'bring'.

Perfective context: *On vyšel na dvor, pojmal babočku i prinës eë domoj.*

'He walked out onto the yard, caught a butterfly and brought it home.'

Imperfective context: *On vyxodit na dvor, lovit babočku i prinosit eë domoj.*

'He walks out onto the yard, catches a butterfly and brings it home.'

A different version of Maslov's criterion is to take an imperative in the perfective aspect and negate it, because the negation *ne* 'not' needs an imperfective verb in the imperative mood. The negation of a perfective imperative like *pozvoni ej* 'call her' is thus an imperfective imperative: *ne zvonit ej* 'don't call her', resulting in the aspectual pair *zvonit'–pozvonit'* 'call, phone'.

Zaliznjak et al. (2015, pp. 55–56, 155, and 330) go so far as to claim that Maslov's criterion is the *only* definition of aspectual pairs and that aspectual pairs are defined as the possibility of a perfective verb to be expressed by an imperfective verb in the historical present. This is a rather strict and not widely accepted standpoint. Despite being a clever and useful definition in many contexts, Maslov's criterion is not without problems. Kuznetsova (2015, 109–118) describes a number of shortcomings with Maslov's criterion, of which two will be mentioned here.

First, Maslov's criterion presupposes a native speaker's intuition, and different speakers' intuitions sometimes differ from one another (Gorbova 2011, Uryson 2019). Non-linguists might even come up with "pairs" consisting of verbs with rather different lexical meanings, for example *iskat'–najti* 'search–find'. The reason behind this is that *najti* 'find' can be felt to be a "natural endpoint", a "successful result", of the activity *iskat'* 'search', just like *napisat'* is the "natural endpoint" of *pisat'*

‘write’, the stage when the writing is completed. *Iskat* ‘search’ cannot be used in the historical present to refer to repeated instances of *najti* (Padučeva 1996, 89), and for this reason, the corresponding imperfective of *najti* ‘find’ is instead *naxodit* (according to Maslov’s criterion and most dictionaries). A pair that in some ways is similar to *iskat*–*najti* ‘search, try to find–find’ is *lovit*–*pojmat* ‘try to catch–catch’, but since *lovit* can be used to refer to repeated occurrences of *pojmat*, these two are regarded an aspectual pair.

Second, Maslov’s criterion can, at least in some contexts, give a false positive, which makes the meaning of the two sentences identical, although the verbs themselves in fact mean different things. In other words, Maslov’s substitution test can result in strange “pairs” like the one below, from Percov (2001, 127):

Perfective context: *On včera prišël i vsex našix devušek smelo pereceloval.*
‘He came yesterday and daringly kissed each of our girls.’

Imperfective context: *On včera prixodit i vsex našix devušek smelo celuet.*
‘Yesterday he comes and daringly kisses each of our girls.’

The perfective verb *perecelovat* ‘kiss everyone or everything, kiss many’ clearly has a different meaning than the imperfective *celovat* ‘kiss’. The “correct” perfective correlate *celovat* ‘kiss’ is instead *pocelovat* ‘kiss’, but despite the different meanings of the verbs *celovat* and *perecelovat*, the two sentences above seem to mean the same thing. This example tells us that Maslov’s criterion is not infallible. However, this particular example or context might be unique, in that it contains both the determiner *vse* ‘all’ and the prefix *pere-*, which can have a distributional meaning, spreading an event over many objects.

Since I am not a native speaker of Russian, I cannot use Maslov’s criterion and say whether two verbs constitute an aspectual pair. I have instead used other criteria to establish aspectual pairs: dictionaries (when possible), an experiment, and interpretation of quantitative data in corpora or text databases, see section 2.1 *Material and Methods*.

4.3 Different Types of Aspectual Pairs

The assertion that Russian verbs come in aspectual pairs is quite uncontroversial among scholars. Most disagreement is about whether two particular verbs constitute an aspectual pair or not. Another question is what “pairedness” itself means. The relationship between the verbs in different aspectual pairs are of different kinds and the term “aspectual pair” thus means different things for different verbs.

A number of ways to classify Russian aspectual pairs has been proposed. Jurij Maslov (1984, first published in 1948) describes three groups. The first group consists of pairs describing ‘attempt’ (imperfective) vs. ‘success’ (perfective) or ‘tendency’ (imperfective) vs. ‘realization’ (perfective). In the second group of aspectual pairs, the imperfective verb refers to the repetition of the action described by the perfective verb. The third group is defined less strictly: “chiefly negatively – by what divides it from the two other groups” (Maslov 1984, 59–60).

Another classification is given by James Forsyth (1970, 46–56), who describes three kinds of aspectual pairs: “instantaneous leap into a new state”, “gradual approach to the point at which the action takes place”, and “gradual achievement of the result”.

Natal’ja Avilova (1976, 167–246) mentions three types of aspectual pairs, which differ with regard to what result the action expressed by the verb has on either its subject(s) or object(s): 1) intransitive verbs that express gradual process towards change in the subject vs. a change in the subject; 2) intransitive verbs that express direction towards achieving the subject’s inner, abstract limit of an action vs. the subject achieving the limit of the action; and 3) transitive verbs that express direction towards a result directed at the object vs. the result of the action.

Zeno Vendler’s (1968) “time schemata” or “classes” (states, achievements, accomplishments and activities), have been applied to Russian as well; see for instance Padučeva (1996, 90–93) and Braginsky & Rothstein (2008). Vendler’s classes cut across the Russian imperfective–perfective distinction: states and activities are imperfective, achievements perfective but accomplishments can be either imperfective or perfective.

I will base my analysis on the aspectual types proposed by Elena Gorbova (2011, 38), who classifies aspectual pairs with regard to their relationship to time. Her types can be shown visually (see Figure 1 below). According to her analysis, there are four types of aspectual pairs: terminatives (Russian: *terminativy*), momentatives (*momentativy*), ingressives (*ingressivy*), and statives/agentives + momentatives (*stativy/agentativy + momentativy*).

Gorbova’s first type, terminatives, refers to verbs that are paired according to the difference ‘attempt vs. success’ or ‘tendency vs. realization’, e.g. *umirat’–umeret’* ‘die’ and *dočityvat’–dočitat’* ‘finish reading, read to the end’. These are often regarded as the most prototypical aspectual pairs (cf. Šatunovskij 2009, 58). In terminative pairs, the perfective verbs express and stress the natural endpoint, or the result, of the activities expressed by their corresponding imperfective verbs. Below is a table (Figure 1) that attempts to visualize Gorbova’s four types of aspectual pairs. In Figure 1, imperfective verbs are represented by the colour grey and their corresponding perfective verbs by black. Terminatives are visualized as a grey line (an imperfective verb) that leads up to a black endpoint (a perfective verb).

The second type, momentatives, refers to short moments and are impossible to use in the ongoing present tense as they refer to punctual activities that lack discernible duration in time. The focal point of these verbs is instead a certain point in time, expressed by the perfective verb, and the corresponding imperfective verb refers to its repetition. Examples of this type of aspectual pair are *prixodit'–prijti* 'come' and *naxodit'–najti* 'find'. Momentatives are visualized in Figure 1 by a black perfective point among many repeated grey imperfective points.

The third type, ingressives, consists of imperfective verbs expressing states, whose beginning is expressed by their corresponding perfective verbs, for example *ponimat'–ponjat'* 'understand (have an understanding of something vs. get an understanding of something)' or *vozglavljat'–vozglavit'* 'lead, head (be the leader of something vs. become the leader of something)'. This type of aspectual pairs is consequently visualized as the opposite of terminatives in Figure 1: a black perfective point starting a grey imperfective line.

The fourth type is a combination of momentatives and states. In these aspectual pairs, the imperfective verb refers to a state whereas the perfective verb refers to a short single instance of that state. The pair *oščuščat'–oščitit'* 'feel, sense' is a good example of this type of aspectual pair. The black perfective point appears in Figure 1 in the middle of a grey imperfective line.

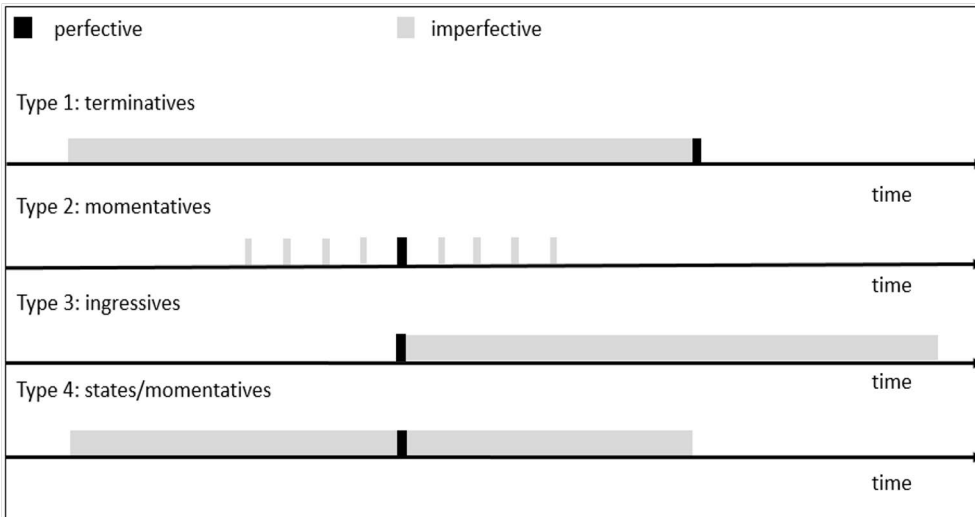


Figure 1. A visual representation of the four types of aspectual pairs described by Gorbova (2011, 37–39).

It is possible to go further and find more aspectual sub-types and sub-sub-types²³ of aspectual classes and aspectual pairs (e.g. Croft 2012, Janda 2015, Zaliznjak et al. 2015, 63–70), but for the purposes of this dissertation the four types in Figure 1 suffice.

Most aspectual pairs of loan verbs are either terminatives or momentatives. Terminatives are, for example, most pairs with a perfective verb prefixed with *ot-* or *pro-*, like *fotošopit'–otfotošopit'* 'photoshop' and *installirovat'–proinstallirovat'* 'install'. Most (but, surprisingly, not all) pairs with a *nu-* suffixed perfective are momentatives, for example *lajkat'–lajknut'* 'like' and *tvitit'–tvitnut'* 'tweet'. A few ingressives can be found, often with the prefix *za-* in the perfective verb, for instance *follovit'–zafollovit'* 'follow someone [on Twitter or other social media]' and *interesovat'–zainteresovat'* 'interest'. States/momentatives might be less common in Russian overall and there is no clear example of a state/momentative aspectual pair in my material.

It is important to note that the abovementioned sketch of different kinds of aspectual pairs makes no pretence at neatly fitting *all* Russian verbs into separate boxes. It is always possible to find unclear cases, as well as cases that can fall into several groups depending on the context. The pair *delat'–sdelat'* 'do, make' functions like a terminative in the context *delat'/sdelat' domašnee zadanie* 'do homework', but like a momentative in *delat'/sdelat' zamečanie* 'make a remark'²⁴. In the first context, there is a process leading up to a “natural endpoint” (the moment when the homework is done), whereas in the second, the action described by the verb together with the noun is rather short and therefore it makes little sense to talk about a “process leading up to an endpoint” in that case.

4.4 Aspect – an Inflectional or Derivational Category?

Another “eternal” question in Russian aspectology is whether Russian verbal aspect and aspectual pairs ought to be seen as an instance of inflection or of derivation (see e.g. Avilova 1976, Gladney 1982, Lehmann 1988, Padučeva 1996, Tixonov 1998, Zaliznjak et al. 2015, Xrakovskij 2015 and 2018, Gorbova 2017 and 2020). Are the

²³ Terminatives have the greatest number of possible subdivisions into different types with regard to how the path towards the “natural endpoint” of the activity looks, for example: ‘smooth path towards the natural endpoint’, ‘small, distinct steps towards the natural endpoint’, ‘chaotic and unpredictable path towards the natural endpoint’ etc.

²⁴ A synonymous momentative aspectual pair to the construction *delat'/sdelat' zamečanie* would be *zamečat'–zametit'* 'remark'. Volkmar Lehmann (1988, 174) notes the impossibility, characteristic for momentatives, of using the imperfective *zamečat'* 'remark' to refer to durative processes (German: *Vorgänge*).

verbs in an aspectual pair different forms of one lexeme (i.e. an instance of inflection) or two separate but semantically proximate lexemes (derivation)? Many scholars hesitate to give a definite answer, as there are good arguments for both views.

The, possibly, best argument for the inflection interpretation (i.e. aspectual pairs as forms of one verb) is intuition. Paired verbs, like *delat'* and *sdelat'* 'do, make', refer, so to speak, to the same action but with different focus, either 'process' (imperfective) or 'result' (perfective). Verbs with multiple meanings also tend to share aspectual correlate across all meanings, according to Aleksandr Tixonov (1998, 10), but he does not discuss prefix variation and the fact that different prefixed perfectives are used in slightly different contexts (cf. section 5.5 *Prefix Variation*).

Another possible argument in favour of aspect as inflection is that many native Russian speakers easily conflate the verbs in an aspectual pair. In an experiment by Rusakova & Saj (2003), Russian speaking children and adults were asked to form the past tense of a verb that was presented to them in a context with the verb in the non-past tense. The results show that a considerable number of participants gave an answer in the other (i.e. "wrong") aspect; an imperfective stimulus sometimes resulted in a perfective answer and vice versa. This seems to imply that verbs in aspectual pairs (at least those tested by Rusakova and Saj, most of which were formed by suffixation) really are treated as forms of one verb in the minds of Russian speakers.

However, the interpretation that aspect is an instance of inflection faces difficult theoretical questions on many other points. One example is the fact that both imperfective and perfective verbs have many inflectional endings themselves, and that both imperfective and perfective verbs can create further derivatives, such as deverbal nouns. Padučeva (1996, 88–89) points out that a given verb can be part of different aspectual pairs, which according to her is not possible to combine with the interpretation of aspect as an instance of inflection. The authoritative Russian Academy Grammar treats aspect as a derivational, "word-forming" (Russian: *slovoobrazovatel'nyj*) category (Švedova et al. 1980, § 1388).

Without taking an explicit side in the discussion, Anna Zaliznjak with colleagues (Zaliznjak et al. 2015) present two arguments in favour of the inflection interpretation and five supporting the derivation interpretation. The arguments that aspect is a form of inflection are, first, that verbs in aspectual pairs have identical lexical meaning and, second, that neither verb in an aspectual pair alone has the full range of inflectional forms of the whole verb paradigm. A verb is not "full" without the forms in the other aspect, according to this view. In favour of the derivation interpretation, Zaliznjak et al. (2015, 20–21) present the following five arguments:

1: The morphological markers of aspect are prefixes and suffixes, which generally are elements of word-formation and not inflection.

2: Some verbs lack a corresponding verb in the other aspect.

3: Inflection is generally more regular and unambiguous than derivation, whereas Russian aspect is morphologically very diverse.

4: Every lexical unit is said to have one base form, but it is hard to point out what the base form of an aspectual pair is: it has two (sometimes more) infinitives, one imperfective and one perfective.

5: Each lexical unit has its own lexical meaning, but the verbs in an aspectual pair may have different submeanings.

The question “inflection or derivation” can also be approached from outside Slavistics. *The Handbook of Morphology* (Spencer & Zwicky 1998) lists six criteria that have been proposed to delineate inflection respectively derivation (Stump 1998, 14–18).

1: Inflection does not change neither the lexical meaning of a word nor its part of speech, whereas derivation does.

2: Syntactic determination: certain syntactic contexts require a certain inflected form of a lexeme, but never that the lexeme belongs to a certain class of derivatives.

3: Inflection is generally more productive than derivation.

4: Inflection is semantically more regular than derivation.

5: The lexicon lists derivative lexemes, not inflected words.

6: Inflection closes words to further derivation, whereas derivation does not.

Criterion 1 and 2 are compatible with the interpretation that aspect is a form of inflection (i.e. that aspectual pairs are forms of one lexeme). Both verbs in an aspectual pair are without doubt verbs and they are said to have the same lexical meaning (criterion 1). There are also syntactic contexts which demand that the verb be in one or the other aspect (criterion 2), for example the analytical future tense. After the inflected forms of *byt'*, *ja budu* ‘I will’, *ty budeš'* ‘you will’ etc., only imperfective verbs are possible. A sentence like *ja budu myt'sja*^{impf.} ‘I will wash myself’ is thus grammatical whereas **ja budu umyt'sja*^{pf.} is not.

Three of the abovementioned criteria (3, 4, and 6) give arguments in favour of aspect as derivation, namely that the verbs in an aspectual pair are two distinct lexemes. First, some verbs are biaspectual, which makes these verbs “unproductive” from an inflectional point of view; they do not express aspect overtly (criterion 3). Second, as seen in section 4.3 *Different Types of Aspectual Pairs*, the formation of aspectual pairs is neither morphologically nor semantically regular (criterion 4). Third, it is sometimes possible to create new words from both verbs in an aspectual pair (criterion 6), for instance *čitat'–pročitat'* ‘read’. Both of these verbs can form deverbal nouns: *čtenie* ‘reading, the process of reading’ and *pročtenie* ‘reading,

interpretation' (Dickey 2000, 248–249). Criterion 5 is harder to judge and perhaps makes sense only in certain theoretical frameworks of language that assume a clear delineation between the lexicon (the number of words an individual speaker stores) on the one hand and rules of inflection on the other.

4.4.1 Dictionaries and Aspectual Pairs

Most dictionaries treat the shortest and morphologically simplest verb in an aspectual pair as the default form. In other words, the perfective verb is treated as the main verb in suffixed pairs and the imperfective verb in prefixed pairs. The suffixed imperfective *rassmatrivat'* 'check' directs the reader to the corresponding perfective *rassmotret'*, but from the prefixed perfective *napisat'* 'write', the dictionary refers to the imperfective *pisat'*. Some dictionaries using this system are the Russian–Swedish *Norstedts stora ryska ordbok* (Sharapova Marklund 2012), the Russian–English *Oxford Russian Dictionary* (Wheeler et al. 2007), the Russian–Finnish *Suomi-venäjä-suomi-sanakirja* (Niemensivu & Nikkilä 2014), and Ožegov's (2005) monolingual Russian *Slovar' russkogo jazyka*.

It is possible that the question whether aspectual pairs are an instance of derivation or inflection will never receive a definitive answer. The difficulty of delineating inflection from derivation is not unique to Russian aspectual pairs; it is a problem that faces morphology in general (Stump 1998, 18–19; ten Hacken 2014). For aspectual pairs, morphological criteria suggest that aspectual pairs behave like derivation, but the semantic proximity of the verbs in an aspectual pair make the strongest case for treating aspectual pairs as instances of inflection. The last word is yet to be said on this matter, but, more importantly, the conclusions put forth in this dissertation should not be dependent on whether one regards aspect as an instance of derivation or as one of inflection, or as a borderline case.

4.5 Pairless Verbs

A minority of Russian verbs do not form aspectual pairs. Such verbs are either biaspectual, used in both imperfective and perfective contexts, or monoaspectual, so-called *imperfectiva tantum* or *perfectiva tantum*.

Biaspectual verbs do not lack aspect, but the imperfective–perfective distinction lacks explicit morphological marking in these verbs. They thus have the same form in both imperfective and perfective contexts. Most biaspectual verbs are of foreign origin, for example *avtomatizirovat'* 'automatize' and *cenzurirovat'* 'censor'. A smaller number, around 40 (Čertkova & Čang 1998, 13–14) biaspectual verbs are of Slavic origin, for instance *velet'* 'order, command' and *kaznit'* 'execute, put to death'. Article I investigated loan verbs in the class of verbs that contains the highest

number of biaspectual verbs: those that end in *-ovat'* in the infinitive (“*ova*-verbs”). While the analysis focused on the 44 *ova*-verbs with an aspectual partner verb in at least one dictionary, the majority of all *ova*-verbs from the analysis are biaspectual, more precisely 144, i.e. about 60%. This number might be a slight exaggeration with regard to the usage in contemporary Russian, as some verbs start biaspectual and only later form aspectual correlates, which are not immediately captured by dictionaries. The numbers from Article I nonetheless show that *ova*-verbs as a rule are biaspectual and that biaspectual verbs are a non-negligible part of the number of new verbs in Russian.

Imperfectiva tantum generally refer to states; they are verbs that lack a natural endpoint or result, for example *sidet'* ‘sit’ and *ležat'* ‘lie, be situated’. A perfectivum tantum verb is *očnut'sja* ‘awaken, come to one’s senses’. A small and rather peculiar group of monoaspectual verbs are diminutive verbs like *spaten'ki* ‘sleep’ or *estočki* ‘eat’, which are most often used in speech directed at small children (Makarova 2012).

Table 3. Types of Pairless Verbs

Types of pairless verbs	Examples
biaspectual verbs	<i>kaznit'</i> ‘execute’, <i>izolirovat'</i> ‘isolate’
imperfectiva tantum	<i>sidet'</i> ‘sit’, <i>spat'</i> ‘sleep’
perfectiva tantum	<i>očnut'sja</i> ‘come to one’s senses’
diminutive verbs	<i>spaten'ki</i> ‘sleep’

Despite the fact that this dissertation is about aspectual pairs, and that most Russian verbs form aspectual pairs, I mention pairless verbs because they are a non-trivial part of the Russian verbal system. There are also many loan verbs that do not form aspectual pairs; especially common among these are verbs ending in *-ovat'*, which can be either biaspectual or perfectiva or imperfectiva tantum (see Appendix).

4.6 Secondary Imperfectives

Secondary imperfectives are prefixed verbs that have been imperfectivized with the help of a suffix: *-yva-/iva-*, *-va-* or *-a-*. In secondary imperfectives, the meaning of the verb is more influenced by the meaning of the prefix than in its “synonymous” non-prefixed imperfective base verb. Furthermore, secondary imperfectives are generally more connected with iterativity. A secondary imperfective, like *pročityvat'* ‘read [through]’, refers, as a rule, to repetition of the completed action expressed by the perfective verb it is formed from (here: *pročitat'* ‘read’), whereas the unprefixed imperfective (here: *čitat'* ‘read’) is associated with the process or the action itself,

with no reference to its completion (Xrakovskij 2005, 57–58; Janda et al. 2013, 163–177). Secondary imperfectives are also connected to a higher degree of individuation; they are more often used together with referentially definite subjects and objects (Zel'dovič 2014), and with a direct object in general (Kuznetsova & Sokolova 2016, 225).

Below are three examples of sentences with secondary imperfectives coined from modern loan verbs, found in the database of Russian media texts Integrum²⁵: *naguglivat'* 'google, find on google' and *proguglivat'* 'google [thoroughly]', very briefly mentioned in Article III, and *polajkivat'* 'like, press the "like" button [from time to time]'

Net zafiksirovannyx, legko naguglivaemyx professional'nyx standartov.
[gazeta.ru, 14.10.2015]

'There are no fixed, easily googlable professional standards.'

Pravda, tut tože prisutstvuet risk, i nužno očen' vnimatel'no proguglivat' specialista, k kotoromu obraščаетes'. [day.az, 08.07.2015]

'Yes, this also entails risk, and you must very carefully google the specialist you are talking to.'

«*Ne znaeš', čto napisat' – sidi, polajkivaj*». [Komsomol'skaja pravda – Omsk (omsk.kp.ru), 10.04.2016]

'If you don't know what to write – sit and like.'

In the first sentence, the passive present participle (which is only possible to form from imperfective verbs) *naguglivaemyx* refers to the state of being 'possible to find on Google'. The next example, with *proguglivat'*, refers to a thorough googling of the specialist in question, emphasized by the preceding adverbs *očen' vnimatel'no* 'very carefully'. The imperative *polajkivaj* 'like' in the third example refers to a repeated and resultative action, and the prefix *po-* emphasizes 'moderation': 'press "like" (sometimes), press "like" (now and then)', which is not an inherent semantic element in the simplex verb *lajkat'* 'like'.

The extent to which Russian verbs can form secondary perfectives exist has been underestimated by earlier generations of scholars and by dictionaries (Janda et al. 2013, 170; Gorbova 2019), possibly due to their relatively low frequency. The fact that many loan verbs form secondary imperfectives strengthens the observation that

²⁵ <http://integrumworld.com/>

secondary imperfectivization is a common word-forming mechanism in Russian. Secondary imperfectives are found for all kinds of loan verbs: for verbs ending in *-it'* and *-at'*, as seen above, as well as for verbs ending in *-ovat'*, which can be seen in the following verbs from Article I: *priparkovyvat'* 'park' from *priparkovat'*, *zaštrichovyvat'* 'cross-hatch' from *zaštrichovat'*, and *probuksovyvat'* 'skid' from *probuksovat'*. In general, secondary imperfectives of loan verbs (e.g. *naguglivat'*) are much less frequent than simplex imperfectives (e.g. *guglit'*), but they do exist. Loan verbs thus participate in the same word-formation processes as older verbs, but precisely how common secondary imperfectivization is in loan verbs is a question left to future research.

4.7 More and Less Prototypical Aspectual Pairs

A last challenge to the “pair” model of Russian verbs is the fact that some aspectual pairs are regarded as aspectual pairs only in some contexts and not in others. Elena Gorbova (2011) reports the results from a survey, answered by a number of professional Russian linguists, on whether they consider a number of proposed aspectual pairs “true” aspectual pairs: *videt'–uvidet'* ‘see’, *guljat'–poguljat'* ‘walk, stroll’, *est'–poest'* ‘eat’, *idti–pojti* ‘walk’, *kričat'–zakričat'* ‘scream’, *pet'–propet'* ‘sing’, and *prygat'–prygnut'* ‘jump’. None of these pairs was considered a “true” aspectual pair by all respondents, but the opposite was also the case: all pairs were considered “true” by at least one respondent. This result suggests that some verbs are borderline cases, non-prototypical aspectual pairs. They might be regarded aspectual pairs only in certain contexts or readings (cf. section 4.2 *Maslov's Criterion*), or be pairs only in the minds of some Russian speakers. The term “aspectual pair” thus covers clear-cut as well as less clear-cut cases. “Obvious” aspectual pairs, which (almost) all agree are aspectual pairs in (almost) all contexts, are for example: *razrabatyvat'–razrabotat'* ‘develop’ and *pisat'–napisat'* ‘write’. Less prototypical examples, where the pairedness is restricted to certain contexts are, for instance, the verbs from Gorbova (2011) like *idti–pojti* ‘walk’ and *kričat'–zakričat'* ‘scream’.

Less prototypical aspectual pairs seldom appear in bilingual dictionaries, as dictionaries and teaching materials can have a “desire to impose uniformity and arrange *all* verbs in pairs” (Forsyth 1970, 37 (original italics)). Such “illogical” pairs, for example *sidet'–posidet'* ‘sit’, are often Aktionsart verbs, i.e. verbs in which the prefix adds a temporal limit to the action expressed by the base verb. In this case, *sidet'* ‘sit’ is paired with *posidet'*, in which the prefix *po-* expresses a temporal limit not inherent in the imperfective base verb: *posidet'* means ‘sit for a [short] while’.

As new loan verbs are not well established in the language, at least not at the moment of borrowing, many aspectual pairs in this dissertation belong to the group

“less prototypical aspectual pairs”. Many loan verbs are not used at all by many Russian speakers, some pairs may become more established in the future, whereas other may eventually fall out of use (cf. section 2.2 *Limitations*).

4.8 Why is the Term “Aspectual Pair” Relevant?

After the passages above on all the exceptions and difficulties in the “pair” model of Russian verbs, one might wonder whether it makes sense to talk about “aspectual pairs” at all. It is perhaps not surprising that some researchers have tried to abandon the term. The authors of the dictionary of Russian verbal aspect *Vid i akcional'nost' russkogo glagola: Opyt slovarja* (Mende et al. 2011) speak of different “aspectual partners” (Russian: *vidovye partnëry*) for different *meanings* of a particular verb instead of “aspectual pairs” and “aspectual correlates”. In their model, “partner verbs” do not necessarily correspond across all meanings (see also, for instance, Lehmann 1988 and Dickey 2006), and it could be argued that this solution describes the situation of Russian verbs and their relationship with verbs in the other aspect more accurately than the traditional “pair” model with numerous exceptions. However, the fact that the term “aspectual pair” is so widely used is a sign of its relevance, and it will probably still be in use in the future, even if it is impossible to pinpoint a certain element or elements that is always present in all aspectual pairs.

From the perspective of a non-native language learner, and in teaching of Russian as a foreign language, the concept “aspectual pair” is quite useful. A given English verb, for example ‘phone’, really does have two equivalents in Russian: *zvonit'* and *pozvonit'*. From this point of view, *zvonit'* and *pozvonit'* mean the same thing and the aspectual difference is only one of whether the speaker wants to stress that the act of calling took place once (*pozvonit'*) or not (*zvonit'*).

Even concepts with fuzzy boundaries can be useful. If we were to abandon the term “aspectual pair”, it would be harder to explain what relationship *otkryt'*^{pf.} ‘open’ has to *otkryvat'*^{impf.} ‘open’, *pisat'*^{impf.} ‘write’ to *napisat'*^{pf.} ‘write’, and *repostit'*^{impf.} ‘repost’ to *repostnut'*^{pf.} ‘repost’, and what the commonalities between these and other aspectual pairs are. Complicating factors like secondary imperfectives and prefix variation are not rare, but they do not represent the majority of cases. The term “aspectual pair” refers to an ideal situation, but since this ideal can be found and is not too uncommon, it should not be controversial to talk about Russian verbs having “aspectual pairs”.

5 Results

This section discusses the main results from the articles. It describes the most common aspectual affixes that form aspectual pairs of loan verbs in Russian and in which verbs they are used. As most aspectual pairs of loan verbs in Russian are formed by prefixation, most of this section is devoted to the meanings of individual prefixes and the verbs they take.

5.1 Suffixes

Suffixation is a less common way to form aspectual pairs of loan verbs than prefixation, but this section starts with a description of the two suffixes that are found: the perfectivizing *-nu-* and the imperfectivizing *-yva-/-iva-*. The following sections discuss individual prefixes, the overlap hypothesis and various criticisms directed at the overlap hypothesis.

5.1.1 The Perfectivizing Suffixes *-nu-* and *-anu-*

The suffixes *-nu-* and *-anu-*, which for reasons of simplicity will be regarded as allomorphs in this dissertation, generally express a very short or instantaneous action. These suffixes are often used in aspectual pairs of the group “momentatives” (cf. Figure 1). Many new verbs related to short actions on computers, smartphones or tablet computers use *-nu-* or *-anu-* to form a corresponding perfective, for example *klikat'–kliknut'* ‘click’, *tvitit'–tvitnut'* ‘tweet’, *lajkat'–lajknut'* ‘like, press the “like” button’, and *repostit'–repostnut'* ‘repost’.

The suffix *-nu-* also forms corresponding perfectives for a few other, non-momentative verbs as well, for instance *bèkapit'–bèkapnut'* ‘back up’ from Article II. Backing up files (on a hard drive or an external memory) usually takes some time, and for this reason, *bèkapnut'* might seem rather illogical. However, in modern, colloquial Russian, the *-nu-* or *-anu-* suffix can be used to form non-momentative perfective verbs, as seen in examples like *rabotnut'* ‘work’, from the imperfective *rabotat'* ‘work’, and *sčitnut'* ‘count’, from the imperfective *sčitat'* ‘count’ (Sokolova 2015). Many new loan verbs belong to colloquial registers, which seems to be the reason behind the use of *-nu-* in non-momentative verbs like *bèkapnut'*.

New *ova*-verbs rarely form aspectual pairs with *-nu-*; the only example found in my material is *gazovat'–gazanut'* ‘gas, accelerate’, but *-nu-* is not exceptionally rare in *ova*-verbs in general (Dickey & Janda 2009).

5.1.2 The Imperfectivizing Suffix *-yva-/iva-*

Verbal suffixation with *-yva-/iva-* and *-va-* is an older word-formation mechanism in Slavic languages than prefixation (Wiemer 2017, 231–232), and suffixed aspectual pairs are generally the most grammaticalized and least controversial aspectual pairs. By some scholars, they are even regarded as the *only* aspectual pairs (Karcevskij 1962, 229; Isačenko 1975, 361–363). With this in mind, one might be surprised to find that suffixation is rare compared to prefixation in aspectual pairs of loan verbs. Of the aforementioned imperfectivizing suffixes, only *-yva-/iva-* is found in recent loan verbs, and it exists only in two types of loan verbs: in secondary imperfectives of prefixed perfective verbs, discussed in section 4.6 *Secondary Imperfectives* and by Daiki Horiguchi (2018), and in corresponding imperfectives of some *ova*-verbs.

Article I found four *ova*-verbs which form a corresponding imperfective with *-yva-*: *avtorizovyvat'–avtorizovat'* ‘authorize’, *kontratakovyvat'–kontratakovat'* ‘counter-attack’, *liberalizovyvat'–liberalizovat'* ‘liberalize’, and *formalizovyvat'–formalizovat'* ‘formalize’. In order for an *ova*-verb to form an imperfective pair verb with *-yva-*, two conditions must be fulfilled. First, the stress of the base verb must fall on the final /a/ (as is the case with *avtorizovát'*, *kontratakovát'*, *liberalizovát'*, and *formalizovát'*). Second, as many *ova*-verbs start as biaspectual, the main aspect (i.e. the most common or most “natural” aspect of a biaspectual verb) of the base verb must be perfective in its biaspectual reading (Tixonov 1964, 48; Bunčić 2013). Since imperfectivization via suffixation is less common than perfectivization via prefixation in *ova*-verbs, it seems that the main aspect of most biaspectual *ova*-verbs is imperfective.

Unlike verbal prefixes and the suffix *-nu-*, the suffix *-yva-/iva-* does not have independent lexical meaning in modern Russian. They can therefore, in principle, combine with verbs with all kinds of meanings. Originally, *-yva-/iva-* expressed ‘repetition’²⁶ but in modern Russian this semantic element has been bleached to the point that it has become a much more “empty” aspectual marker than any other aspectual affix.

²⁶ The ‘repetition’ meaning of the suffix *-yva-/iva-* is still seen in iterative verbs like *xaživat'* ‘often go somewhere, visit frequently’ (from *xodit'* ‘go, walk’) and *kurivat'* ‘smoke frequently’ (from *kurit'* ‘smoke’).

5.2 Russian Verbal Prefixes and Their Multiple Meanings

Russian verbal prefixes have been the topic of numerous linguistic works, as Russian verbal prefixes have many, sometimes interconnected, functions: grammatical, semantic, stylistic and sometimes syntactic.

Russian verbal prefixes can be of either Slavic or foreign origin. An example of the former is *s-* in *skonstruirovat'* 'construct', and of the latter *de-* (from Latin) in *dekonstruirovat'* 'deconstruct'. Among Slavic prefixes, there is a difference between those prefixes that create a perfective verb when added to an imperfective simplex verb, for example *u-* in *uvidet'*^{pf.} 'see, notice', and those relatively few that do not, like *pred-* in *predvidet'*^{impf.} 'foresee'. Finally, according to an old assumption (the "empty prefix hypothesis"), some prefixes change the meaning of the base verb whereas others do not. Those prefixes that presumably do not change the meaning of the verb are those that form "natural perfectives", the topic of this dissertation.

Most Russian verbal prefixes have multiple meanings and the literature on individual prefixes is extensive. The Russian Academy grammar (Švedova et al. 1980 § 854–881) lists meanings for 28 verbal prefixes (both prefixes that can change the aspect of a verb and prefixes that cannot). Other works with a wide scope are: Voloxina & Popova (1993), Krongauz (1998), Shull (2003), Svenonius (2004), Endresen et al. (2012), Janda et al. (2013), Kagan (2016), and Nessel (2020). Some works on individual prefixes are Dobrušina (1997) on *iz-*, Krongauz (1997) on *ot-*, Svecinskaja (1997) on *vy-*, Jakunina (2001) on *pri-*, Braginsky (2008) on *za-*, Janda & Nessel (2010) on *raz-*, Dickey (2006), and LeBlanc (2010) on *po-*.

There is unfortunately no generally accepted view on what a linguistic "meaning" consists of and exactly how many different meanings a linguistic unit, such as a Russian verbal prefix, has. Some works describe one or a few broad meanings for a certain prefix whereas other offer extensive lists of meanings, nuances and sub-meanings of prefixes. It seems unwise to assume that one approach is inherently better than other approaches; my analysis of the meanings of prefixes is therefore based on different sources with different methodologies. They tend to agree on the central meanings.

When referring to meanings of any particular prefix, I most often cite the analyses found in Janda et al. (2013) or in the Academy grammar (Švedova et al. 1980). The main difference between the former and the latter is that Janda et al. propose *radial categories*²⁷ to describe the relationship between different meanings

²⁷ See Janda & Nessel (2010) for a radial category profiling of *raz-*, Nessel et al. (2011) for a radial category profiling of *vy-* and *iz-* and Endresen et al. (2012) for a radial category profiling of ten different prefixes.

of a prefix, whereas the Academy grammar lists a number of meanings for each prefix but without discussing any connections between the different meanings. Radial categories are a way to show how different meanings of a linguistic unit are interconnected. Radial categories are “defined by relationships to a prototype” (Endresen et al. 2012, 238), in which the proposed prototype is the most salient, as a rule spatial²⁸, meaning, from which the other submeanings of the unit are derived.

This approach can be illustrated on a concrete example: the prefix *pri-*. From the proposed prototypical spatial meaning ‘arrive’ of *pri-* (seen in verbs like *priletet* ‘arrive flying’ and *prislat* ‘send [to a place]’), other meanings of *pri-* are deduced, like ‘add’ (cf. *pristroit* ‘build on’ and *pridat* ‘add’) and ‘attach’ (as in, for instance, *prikrepit* ‘fasten to’, *prišvartovat* ‘moor’) (Endresen et al. 2012, 262–264). Another difference between the two works is that the Academy grammar lists a separate “purely aspectual” meaning for some prefixes, referring to the meaning that is used to form aspectual pairs, whereas Janda et al. combine these meanings with “specialized” meanings. This means that a certain meaning of a prefix in Janda’s et al. works can contain both natural perfectives and specialized perfectives. One example is the meaning ‘duration/overcome’ of the prefix *pere-*, for which they list both the natural perfective *perenočevat* ‘spend the night’ and the specialized perfective *perebolet* ‘overcome a disease’ (Endresen et al. 2012, 274–275; Janda et al. 2013, 71).

5.3 The Overlap Hypothesis

In this dissertation, I argue that there is no “empty”, or “purely aspectual”, meaning of Russian verbal prefixes. The perceived emptiness of certain prefixes is instead a result of the meaning of the base verb being close to the meaning to the prefix. In other words, the verb stem and the prefix in natural perfectives express, to some extent, the same thing. The research group *Exploring Emptiness*²⁹ at the University of Tromsø in Norway calls this idea the *overlap hypothesis*.

The term “overlap hypothesis” was coined by the *Exploring Emptiness* research group (Nesset 2010, Janda & Lyashevskaya 2011, Endresen et al. 2012, Janda et al. 2013), but the hypothesis itself is older than this research group. The overlap hypothesis is sometimes in Russian scholarly literature called *èffekt Vey–Sxonevel’da* ‘the Vey–Schooneveld effect’ after the researchers Marc Vey (1952)

²⁸ Cf. “it has been suggested that the spatial sense of Russian verbal prefixes is the most basic one [...] Thus, while the spatial meaning represents only a small fragment of the greater semantic network of each prefix, it may occupy a privileged position in relation to other senses within that network and may serve to distinguish among the different prefixes” (Shull 2003, 1).

²⁹ <http://emptyprefixes.uit.no/>

and Cornelis van Schooneveld (1958), who also proposed this hypothesis (Vey for Czech and van Schooneveld for Russian), albeit with much fewer empirical data to back it up than the *Exploring Emptiness* group. The term *èffekt Veja–Sxonevel’da* can be found in Rovinskaja (2001), and *gipoteza Sxonevel’da* ‘Schooneveld’s hypothesis’ in Krongauz (1998, 82) and Jakunina (2001, 126). The effect is described or hinted at, but not always explicitly referred to as “*èffekt Veja–Sxonevel’da*”, in the Russian Academy grammar (Švedova et al. 1980, § 1394), by Xrakovskij (2015, 308–309), Gorbova (2011, 25), Plungjan (2011, 308) and by Zaliznjak et al. (2015, 93).

It is hard to find mentions of the overlap hypothesis outside of specialized literature, and for this reason, it seems reasonable to assume that the overlap hypothesis is little known among those who could benefit the most from knowing about it, namely students of Russian as a foreign language. Many grammars of Russian for students of Russian as a foreign language differentiate between “empty” and “non-empty” (also called “lexical”) meanings of verbal prefixes (e.g. Wikland 1974, 115; Mathiassen 1996, 360–361; Wade & Gillespie 2011, 273) but do not explain why a particular prefix would be “empty” in one verb but “non-empty” in another.

Not all prefix–verb stem combinations are equally transparent in their overlap. The overlap is often more visible in small prefixes and in verbs with a spatial meaning, and more abstract in big prefixes. This topic is further elaborated on in the following section.

5.4 Small and Big Prefixes

According to Krongauz (1998, 111) Russian has 19 verbal prefixes that make a simplex imperfective verb perfective: *v-*, *vz-*, *vy-*, *do-*, *za-*, *iz-*, *na-*, *nad-*, *o-*, *ob-*, *ot-*, *pere-*, *po-*, *pod-*, *pri-*, *pro-*, *raz-*, *s-*, and *u-*. These prefixes differ in frequency vastly. These two facts have been put forth as important arguments against the “empty prefix” hypothesis. First, why are there so many prefixes that express a single feature: [+ perfective]? Why not just one or a few? Second, why are some prefixes common and other extremely rare? A third question is why the same prefix would be “empty” in some verbs but express a certain meaning in other verbs (Plungjan 2011, 303; Janda et al. 2013, 10).

A list of the most common aspectual prefixes in Russian aspectual pairs compiled by the *Exploring Emptiness* research group (Endresen et al. 2012, 243) shows that *po-* is the most common aspectual prefix, followed by *s-*, *za-*, and *o-/ob-/obo-* (which they treat as allomorphs). On the other end of the list, we find the least common aspectual prefixes: *v-*, *pod-*, and *pere-*.

The distribution of aspectual prefixes is slightly different in loan verbs than in older verbs. The most common prefix that forms natural perfectives of new loan verbs is *za-*. This conclusion is based on the results of Article I and, partly, by Article II (in which the suffix *-nu-* was the most common perfectivizer, but among prefixes *za-* was number one), on the results of questionnaire studies by Gjervold (2013 and 2015) and Gordeeva (2018), and on the data found in the Appendix of this dissertation, in which *za-* is by a large margin the most common aspectual affix.

The four “biggest” aspectual prefixes for loan verbs are *za-*, *ot-*, *pro-*, and *s-*. Despite the absence of a natural line between “big” and “small” prefixes (Janda et al. 2013, 16–17), there are good reasons to analyse the two groups differently. Small prefixes tend to have a more restricted range of meanings, and the overlap between verb stem and prefix is more visible in verbs with small prefixes. Big prefixes, on the other hand, have a more abstract meaning and cover a much wider range of verbs. The existence of grey areas, or transitional zones between big and small prefixes, does not change the fact that the extremes are clearly different.

Figure 2 shows the distribution of aspectual prefixes for the verbs in Article I: loan verbs ending in *-ovat'* or *-evat'* from the 20th century. Further down is a table (Figure 3) with the distribution of aspectual affixes for all verbs in the Appendix.

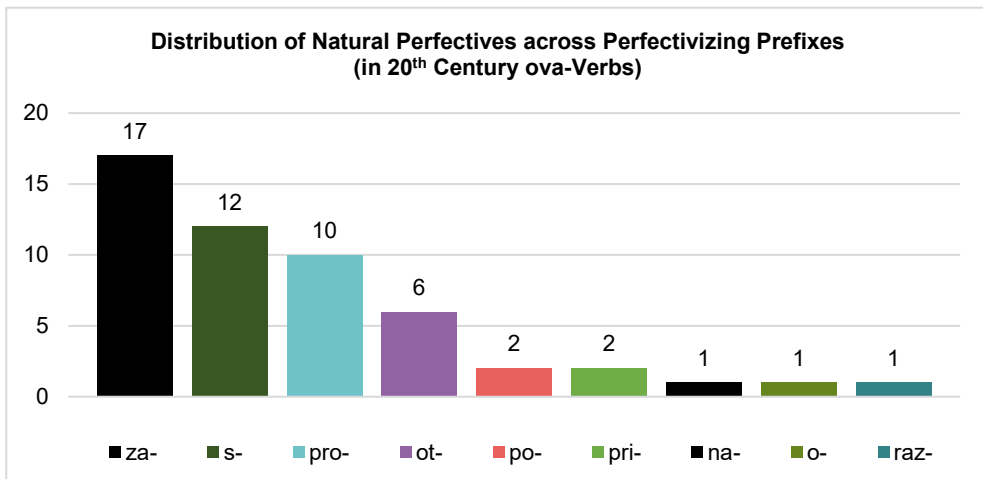


Figure 2. Distribution of Natural Perfectives across Perfectivizing Prefixes (in 20th Century ova-Verbs). (Data from Article I.)

The data in Figure 2 comes from *ova*-verbs, but the four top prefixes in Figure 2 are also common for verbs ending in *-at'* or *-it'*, as seen in the following verbs from Article II: *zainstagramit'* ‘instagram’, *zaguglit'* ‘google’, *zaskrinšotit'* ‘screenshot’, *zaselfit'sja* ‘take a selfie’, *proapgrejdit'* ‘upgrade’, *otfotošopit'* ‘photoshop’, and

skopipastit' (which was almost as common as *kopipastnut'*) 'copy-paste'. (See also Figure 3 below.)

“Small” prefixes are small because they only form natural perfectives for a limited number of verbs. The overlap is often more visible in the verbs that use small prefixes than in verbs with big prefixes, where the meaning of the prefix often is more abstract. One “small” prefix is *pri-*, which can express ‘arrival’, ‘addition’ or ‘attachment’ (Janda et al. 2013, 52–3; Švedova et al. 1980, § 875). The ‘arrival’ meaning is seen in two *pri-*-prefixed verbs discussed in Article I: *priparkovat'* ‘park [a car]’ and *prišvartovat'* ‘moor [a boat]’. Another new verb that uses *pri-* to form a natural perfective is *attačit'* ‘attach [a file in an e-mail]’, which harmonizes well with the meaning ‘addition’ of *pri-*.

Another small prefix is *raz-*, which is discussed at some length in Article IV with regard to *rasšerit'* ‘share’ and in Article I with regard to *rastiražirovat'* ‘circulate, spread [a newspaper etc.]’. The meaning associated with both the prefix and the verbs *šerit'*³⁰ ‘share’ and *tiražirovat'* ‘circulate, spread [a newspaper etc.]’ is the meaning “*napravít v raznye storony*” ‘disperse in different directions’ (Švedova et al. 1980, § 877) or ‘apart’ (Janda et al. 2013, 42–45; Janda & Nessel 2010, 490).

Two very small prefixes for loan verbs are *o-* and *pod-*. *O-* is one of the most common aspectual prefixes in Russian overall, but in practice non-existent in recent loan verbs. Some older loan verbs are found with this prefix, for example *ošvartovat'* ‘moor’ from Article I, *opublikovat'* ‘publish’, and *oštrafovat'* ‘fine, penalize’. According to the *Exploring Emptiness* research group³¹, all three abovementioned *o-*-prefixed verbs have the meaning ‘impose/acquire a new feature’, which is a very broad meaning that combines with many different verbs. An allomorph³² of *o-* is *ob-*, which is used in the now dated verb *obmeblirovat'* ‘furnish’, discussed in Article IV. With *pod-*, I have only found one recent loan verb: *podfajntjunit'* ‘fine-tune’. The relevant meaning associated with *fajntjunit'* and *pod-* is ‘adjust’ (Endresen et al. 2012, 279–280).

A prefix that forms natural perfectives for a few older loan verbs is *vy-*, for instance *vyštampovat'* ‘print/stamp an image’, *vygravirovat'* ‘engrave’, and *vytatuirovat'* ‘tattoo’. These verbs express the meaning ‘create an image on a surface’ associated with the prefix *vy-* (Endresen et al. 2012, 270–271; Janda et al. 2013, 65).

³⁰ Alternative spelling: *šarit'*.

³¹ http://emptyprefixes.uit.no/o_eng.htm

³² Treating the prefixes *o-* and *ob-* as allomorphs rather than two different morphemes is a solution not everyone agrees with. The Russian Academy grammar considers them separate prefixes (Švedova et al. 1980, § 867–868), on the basis that *ob-* has extra sub-meanings not found for *o-*: ‘surpass’ and/or ‘causing harm’, seen in verbs like *obvorovat'* ‘rob, plunder’ and *obygrat'* ‘beat [in games]’. See also Krongauz (1998, 131–148) for an overview of arguments for and against treating *o-* and *ob-* as allomorphs.

A more recent *vy*-prefixed verb is *vyuglit'* 'google, find something on Google', which is a (rare) natural perfective of *guglit'* (Krongauz 2016, 33), possibly coined in analogy with the *vy*-prefixed *vyiskat'* 'track down'.

In older verbs, *na-* is the fifth most common aspectual prefix, according to Janda et al. (2013, 15), but in new loan verbs, *na-* is quite rare. In my material there are only three verbs with *na-*: *naguglit'* 'google' from Article III, *namuxlevat'* 'cheat' from Article I, and *nakraudfandit'* 'crowdfund (collect money from different sources to a project)' from Wiktionary³³. *Naguglit'* 'google' is used in contexts meaning 'find something on the internet [using Google]'. This meaning is close to another *na*-prefixed verb: *najti* 'find'. The two other verbs are associated with the meaning 'accumulate' (Janda et al. 2013, 100), or *nakoplenie* 'accumulation' (Švedova 1980, § 863) of the prefix *na-*. *Nakraudfandit'* expresses the "natural endpoint" of *kraudfandit'* 'crowdfund', which is reached when one has collected or accumulated the desired amount of money. *Muxlevat'* 'cheat' can be interpreted as a 'behaviour' verb, and *na*-prefixed behaviour verbs can, in the words of Janda et al. (2013, 101): "describe unpleasant behaviors that are often excessive, and are thus compatible with the ACCUMULATE meaning of the prefix [*na-*]".

The most common perfectivizing prefix in Russian overall is *po-* (Mučnik 1956, 102; Janda et al. 2013, 15). *Po-* is especially productive in verbs describing actions that take a rather short time to execute³⁴ (Janda & Lyashevskaya 2013, 233). In loan verbs, however, it is not overly productive, as only a few borrowed verbs form corresponding perfectives with *po-*. Examples are *poguglit'* 'google' from Article III, *pošerit'* 'share' from Article IV, and *potrollit'* 'troll, harass'. The fact that *po-* is the most common aspectual prefix overall in Russian but only moderately productive in modern loan verbs is an indication that neologisms do not always behave the same way older words do. Productivity in neologisms and nonce-formations is one of the proposed criteria for the notion of "regularity" in linguistics (Barðdal 2008, 11; Pinker 2011, 214), but, as aspectual pairs of loan verbs show, the most commonly used affix to express a particular grammatical category in a language is not necessarily the default choice for expressing that category in neologisms. The most productive aspectual affix in Russian loan verb is instead the prefix *za-* (see Figure 3 below), which is the best candidate for a "default" affix forming new aspectual pairs in Russian.

³³ <https://ru.wiktionary.org/wiki/краудфандить> (last retrieved 21 March 2022).

³⁴ This meaning is similar to the delimitative Aktionsart, also expressed by the prefix *po-*. Some verbs have a parallel reading, so that the *po*-prefixed verb can be either delimitative Aktionsart or aspectual correlate, for example *posčitat'* '1: count, 2: count for a while'.

5.4.1 The Meanings of the Prefix *za-* and the Reasons for Its Productivity

The material this dissertation is based on shows that the most common aspectual prefix in Russian loan verbs by far is *za-*. It is used to form corresponding perfectives for 69 unique verbs in the Appendix, as seen in Figure 3 below. This is more than twice the number of the second most common affix *-nu-*, with 27 unique verbs.

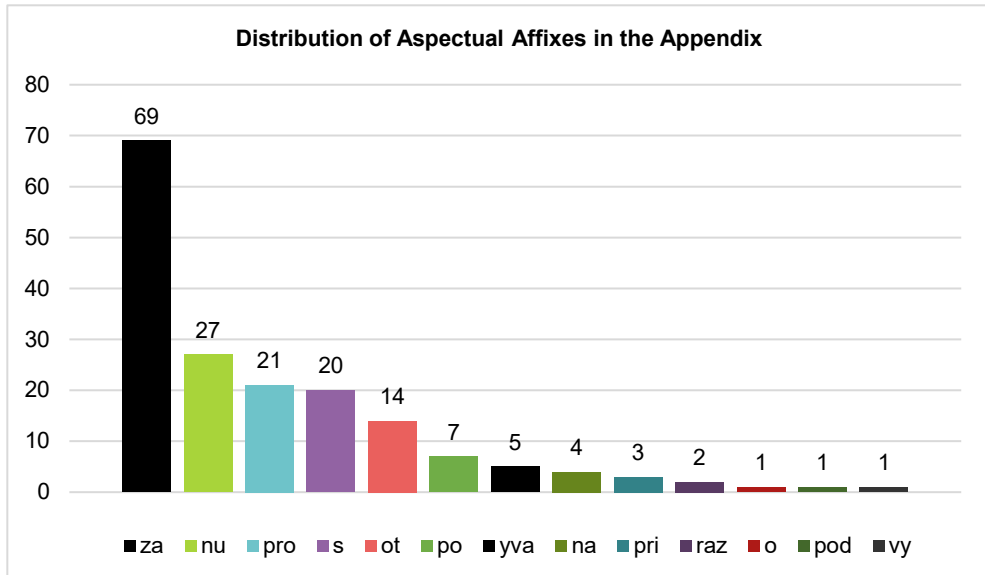


Figure 3. Distribution of Aspectual Affixes in the Appendix. (Data from the Appendix.)

Beside from forming natural perfectives of a number of modern loan verbs, *za-* is productive in another sense as well in modern Russian; *za-* creates “parallel” perfectives of a number of old Russian verbs that already have a corresponding prefixed perfective. Examples of newly coined *za-*-prefixed verbs are *zacenit’*, instead of the older *ocenit’* ‘value’, and *zasmotret’* instead of *posmotret’* ‘look’ (Sokolova 2009). *Zaparkovat’* ‘park [a car]’ was found to be a reasonably common synonym to the standard *priparkovat’* in Article I.

Not only is *za-* extraordinarily productive in modern loan verbs and in some older verbs, *za-*-prefixed verbs also tend to be used in a broader spectrum of meanings in verbs with prefix variation. According to the case studies in Article III and IV on prefix variation of *guglit’* ‘google’ and *šerit’* ‘share’, the *za-*-prefixed verbs *zaguglit’* and *zašerit’* are used in a larger number of contexts than verbs with other prefixes. *Zaguglit’* was the only verb that took both *otvet* ‘answer’ and *vopros* ‘question’ as

direct objects in the texts from Integrum, unlike *naguglit'*, which took *otvet* but not *vopros*, and *poguglit'*, which took *vopros* but not *otvet*. This result tells us that *zaguglit'* can be used in both meanings, whereas *naguglit'* is restricted to the sense 'find something on Google' and *poguglit'* to 'search for something on Google'. *Zašerit'* (as well as *pošerit'*) 'share' was used with direct objects found in the offline world, like *taksi* 'taxi' and *sčēt* 'bill', but *rasšerit'* was restricted to the use 'share something on the internet'.

Za- was also the most commonly used prefix by the participants in the experiment described in Article II (albeit less common than the suffix *-nu-*). *Za-* was the most commonly chosen aspectual prefix for five verbs: *zainteresovat'* 'interest', *zainstagramit'* 'instagram', *zaguglit'* 'google', *zaskrinšotit'* 'screenshot', and *zaselfit'(sja)* 'take a selfie', and the second most commonly used aspectual affix for another seven verbs: *zatvitit'* 'tweet', *zafotošopit'* 'photoshop', *zarepostit'* 'repost', *zabèkapit'* 'back up', *zaxeštegīt'* 'hashtag', *zajandeksit'* 'yandex', and *zasnapčatit'* 'snapchat'.

Why, then, is *za-* so productive in modern Russian? According to the overlap hypothesis, there ought to be two possibilities. One is that there must be at least one meaning associated with *za-* that is very broad so that it can combine with many different verbs. Another is that *za-* might have a multitude of different meanings, covering many different verbs. There seems to be some truth to both explanations. Janda et al. (2013, 102) explain that "the meaning of *za-* is quite complex, and scholars have identified a wide range of meanings associated with this prefix". The Russian Academy Grammar lists ten separate meanings for *za-*, which is more than for any other verbal prefix except *pere-* (Švedova et al. 1980, § 861 and § 870). One spatial meaning associated with *za-* that appears in a number of *za-*-prefixed loan verbs is 'cover' (related to the meaning of the preposition *za* 'behind'). This meaning is seen in the following verbs from Article I: *zaasfal'tirovat'* 'asphalt, pave with asphalt', *zabetonirovat'* 'concrete, cover with concrete', and *zašpaklevat'* 'spackle', which all express an action that entails covering a surface, and *zakamuflirovat'* 'camouflage' which means hiding an item, i.e. covering it to make it look like its surroundings.

Since far from all *za-*-prefixed verbs have a 'cover' meaning, it is clear that this meaning alone cannot explain the high productivity of *za-* in modern Russian. The main reason behind the productivity of *za-* is instead, I argue, a rather broad and abstract meaning called 'change of state'. This meaning is not listed in the Russian Academy grammar, but Janda et al. (2013, 103) talk of a 'change to a fixed state' meaning of *za-* and Pavel Braginsky (2008, 148–171) mentions a 'resultant meaning'

as one of three big meanings of *za-*³⁵. The ‘change of state’ harmonizes with one of the most important meanings of the perfective aspect as such, namely the resultant meaning (see section 4.1.1 *Perfective Aspect*).

Since ‘change of state’ is such a broad and abstract meaning, it is not surprising that a prefix with this meaning would cover a wide range of different verbs with different meanings. A few verbs with non-spatial meanings from the articles are *zagermetizirovat’* ‘seal’, *zaguglit’* ‘google’, *zaprogrammirovat’* ‘program’, *zaskrinšotit’* ‘screenshot’, and *zašerit’* ‘share’. The proposed overlap in meaning between verb stem and prefix in cases like these is rather vague, and if any prefix could be called “purely aspectual” or “semantically empty” in modern Russian, it is *za-*. Dickey & Janda (2015, 75), quoting Gjervold (2014), hypothesize that *za-* is the “default” perfectivizer in modern loan verbs, but they also single out *s-* as a good prefix with a “default”, “purely perfectivizing” meaning, and note that *po-* historically played this role. The idea that some morphemes are “default” and used where other morphemes for some reason are not suitable or possible is not confined to Russian aspectual pairs. Examples of grammatical categories where a language may have a “default” morpheme are: nominal classifiers, plural endings, grammatical gender assignment and in semantic stretchings of otherwise irregular words, which take a default, regular form in the stretched context. (See for example Pinker (2011, 215–239), Barðdal (2008, 20–24), Dickey & Janda (2015, 75), and Janda et al. (2013, 186).) The high productivity of *za-* in modern Russian loan verbs, across verbs of different conjugational classes and semantic spheres, shows that *za-* is the default aspectual prefix in new verbs in the early 21st century. If *za-* had been the only prefix used to form aspectual pairs of new verbs, there would have been reason to call *za-* an “empty” or “purely perfectivizing” prefix. It is, however, neither semantically empty nor the only productive aspectual prefix. Semantic overlap (or “non-emptiness”) is seen clearly in ‘cover’ verbs like *zaasfal’tirovat’* ‘asphalt’ and *zakamuflirovat’* ‘camouflage’. Most loan verbs form aspectual correlates by other prefixes (see Figure 3); the “small”, less frequent ones are described in section 5.4 *Small and Big Prefixes*, and the following sections will describe the three remaining “big” prefixes: *pro-*, *s-*, and *ot-*.

³⁵ The other proposed meanings of *za-* in Braginsky’s dissertation are ‘the spatial meaning’ and ‘the inchoative meaning’. He analyses the prototypical spatial meaning of *za-* as “motion of one of the participants in a motion event – subject for intransitive verbs, object for transitive ones – into some location in space” (Braginsky 2008, 72), and treats ‘cover’ as a submeaning of ‘resultant’ (Braginsky 2008, 158–162).

5.4.2 The Prefix *pro-*

The prefix *pro-* is one of the biggest in both old and new verbs in Russian. It has a clear prototypical spatial meaning: ‘through’. Verbs forming aspectual pairs with the prefix *pro-* generally express a process, so that the action can be thought of as either a physical voyage through a certain distance or quantity, a metaphorical voyage from the first item to the last, or a voyage in time from the beginning to the end of something, or from 0% to 100%. Švedova et al. (1980, § 876) name as the first meaning of *pro-* “*napravit’ skvoz’ čto-n., čerez čto-n.*” ‘direct something through something’. Janda et al. (2013, 106) write: “Perhaps the most prominent meaning [of the prefix *pro-*] is THROUGH”. This meaning harmonizes well with the ‘completedness’ inherent in the perfective aspect. *Pro-*verbs describing the completion of processes are, for instance, *proguglit’* ‘google [everything]’, *proinstallirovat’* ‘install’, *proapgrejdit’* ‘upgrade’, *proxronometrirovat’* ‘time, measure time’, and *protestirovat’* ‘test’.

The physical meaning movement ‘through’ space associated with *pro-* spills over to the metaphorical movement ‘through’ time. Kuznetsova (2015, 125) argues that “all uses of the prefix *pro-* are related to one semantic schema: ‘through a quantum.’” Denoting a journey from 0% to 100% is in principle possible with all terminative aspectual pairs (cf. section 4.3 *Different Types of Aspectual Pairs*), but many *pro-*prefixed verbs have the additional nuance of completion of, or metaphorical movement through, actions whose length or duration (in Kuznetsova’s words: “quantum”) is known or defined already before the activity starts. This nuance in meaning sets *pro-*prefixed verbs apart from most other telic verbs. The crucial difference between *pro-*prefixed verbs and non-*pro-*prefixed verbs is that the length of the “journey” in non-*pro-*prefixed verbs (*pisat’–napisat’* ‘write’, *konstruirovat’–skonstruirovat’* ‘construct’, and others) is unknown at the start of the process, whereas most *pro-*prefixed verbs describe actions whose length in space or time to some extent is known and defined beforehand. Verbs like *proinstallirovat’* ‘install’ and *proapgrejdit’* ‘upgrade’ refer to processes that have a defined “journey”; it is, at least in principle, known beforehand how the process will unfold and how many steps are needed to complete the installation or upgrade.

A smaller group of *pro-*prefixed verbs refer to failure, as seen in the specialized perfectives *proigrat’* ‘lose’ and *provalit’* ‘fail’. “*Rjad glagolov sovmeščает značenija napravlenija mimo čego-n. i ošibki, upuščenija*” ‘Many verbs combine the meanings of directing something past something and of mistake, failure’ (Švedova et al. 1980, § 876). Among loan verbs there is one profane verb belonging to this group: *profakapit’* ‘fuck up, make a mistake’.

5.4.3 The Prefix *s-*

Unlike the other “big” prefixes (*ot-*, *pro-*, and *za-*) mentioned in this dissertation, *s-* lacks a clear “main” meaning that covers most verbs with this prefix. Instead, loan verbs that form aspectual pairs with *s-* can be divided into three subgroups: ‘movement to the centre’, ‘one-off act’, and ‘movement downwards’. Janda et al. (2013, 97) put it this way: “There are three meanings associated with the prefix *s-*: TOGETHER, DOWN, and ONCE.”

The first, and perhaps most prototypical, meaning of *s-* is ‘together’ or ‘movement to the centre’. It is listed as the first meaning associated with *s-* in the Academy Grammar (Švedova et al. 1980, § 879): “*dostavit’ iz raznyx mest v odno*” ‘gather from many places into one’. This meaning is visible in verbs like *scentrirovat’* ‘centre, gather in the centre’ and *sfokusirovat’* ‘focus’. The verb *sdelat’* ‘do, make’ and the to some degree synonymous loan verbs *skonstruirovat’* ‘construct’, *sprodjusirovat’* ‘produce [a music album]’, and *sformirovat’* ‘form’ etc. can also be claimed to belong to this group, as making or creating something can be thought of as collecting many small parts and forming them into one.

The second meaning of *s-* is ‘once’, expressing a one-time act, seen in verbs like *sblefovát’* ‘bluff [once]’, *smuxlevat’* ‘cheat [once]’, and *sfejspalmit’* ‘facepalm, do one facepalm’. The ‘once’ meaning is also found for the suffix *-nu-*, but they are productive for different verbs. While the majority of recent loan verbs that express short one-off acts form perfectives with *-nu-*, *s-* is more productive than *-nu-* in *ova-* verbs.

The third meaning of *s-* is ‘down’, or ‘movement from the surface of something’, in analogy to the preposition *s* ‘from’. Some verbs with this meaning are *soskanirovat’* ‘scan’, *skopipastit’* ‘copy-paste’, and *skal’kirovat’* ‘calque’, which refer to actions of copying or duplicating something.

5.4.4 The Prefix *ot-*

A prefix that is relatively common in recent loan verbs, albeit being on the lower end of frequency in older verbs, is *ot-*. The Appendix contains 14 *ot-*-prefixed verbs, making it one of the more frequent prefixes there.

The prototypical spatial meaning of *ot-* is “*udalit’(sja) na nekotoroje rasstojanie*” ‘move some distance away’ (Švedova et al. (1980, § 869), which is close to the meaning of the preposition *ot* ‘from’. Janda et al. (2013, 54) write: “The radial category of *ot-* [...] has the prototype DEPART, plus five more meanings directly connected to the prototype: BOUNCE, UNSTICK, REMOVE, MAKE NON-FUNCTIONAL, and STOP AT THE ENDPOINT.” Some *ot-*-prefixed loan verbs express the spatial meaning ‘from’, for instance *otskrinšotit’* ‘screenshot’, a less common verb from

Article II, and *otkserokopirovat'* from Article I and its synonym *otkserit'* 'photocopy'.

The second group of *ot*-prefixed loan verbs is associated with the meaning 'stop at the endpoint'. These verbs express actions one does not expect to repeat. This meaning is close to the completive (also called finitive) Aktionsart associated with *ot*- (Zaliznjak & Šmelëv 2000, 113–114; Zaliznjak et al. 2015, 120). Verbs of this kind refer to actions that, once finished, cannot be altered, or cannot be altered easily. A good example of a verb of this kind is *otredaktirovat'* 'edit'. When the editing of an article is done, the article goes to print, after which it cannot be altered (at least when we speak of printed texts). Two other examples of 'stop at the endpoint' verbs are *otformatirovat'* 'format [a hard drive]' and *otfotošopit'* 'photoshop'. Formatting a hard drive is as a rule done only once, and *otfotošopit'* refers to photoshopping (i.e. editing, using the computer program Photoshop) a picture until the point when it is as good as it can be, according to the creator. A small, but productive, subgroup of *ot*-prefixed verbs can be found in the jargon of different professions, which form "parallel" perfectives for older verbs which already have another prefixed perfective, like *za*- (cf. Sokolova (2009) and section 5.4.1 *The Meanings of the Prefix za- and the Reasons for Its Productivity* above). These verbs have the semantic nuance 'complete/fulfil one's professional duties' (Krongauz 1998, 253), which is close to the 'stop at the endpoint' meaning of *ot*-, as both refer to actions one wishes to complete conclusively. Some professional verbs of this kind are mentioned in Article IV: *otygrat'* 'play, perform', instead of *sygrat'* 'play', and *otpisat'* 'write [and send]', instead of *napisat'* 'write'. (See also Glovinskaja (2008, 194–196).) Borrowed verbs with this meaning are *otdiktovat'* 'dictate, finish dictating', *otkommentirovat'* 'comment', and *otrežissirovat'* 'direct [a film etc.]' (Krongauz 1998, 253).

5.5 Prefix Variation

Characteristic of many recent loan verbs is *prefix variation*, which refers to an imperfective verb having more than one natural perfective, formed by different prefixes³⁶. This kind of variation has received various names in earlier scholarly literature, for example "so-called synonyms" (Svecinskaja 1997, 155–161), "variant formations" (Švedova et al. 1980, § 1387 and 1396; Tixonov 1998, 25), "parallel formations of prefixed synonymous verbs" (Avilova 1976, 255–258), and "prefixed

³⁶ Note that *prefix variation* is different from *prefix stacking*, which refers to a single verb taking two or more prefixes, for instance *povybrasyvat'* 'throw out one by one' (Svenonius 2004, 207). *Prefix variation* refers to different natural perfectives with different *single* prefixes.

equivalents” (Glovinskaja 2008, 193), until the term “prefix variation” was used by Janda & Lyashevskaya (2011).

At first glance, one might think that prefix variation is an argument *against* the overlap hypothesis. Prefix variation, especially if widespread, could mean the choice of aspectual prefix is not that important, and that any prefix could be used to form an aspectual pair. This is, however, not the case. Verbs (like most words) can have multiple meanings; an imperfective verb may have one aspectual correlate in one of its meanings and another aspectual correlate in a different meaning (cf. Mende et al. 2011). Two illustrative examples from Article III are *poguglit'* and *naguglit'*, which are used in different contexts. *Poguglit'* is used in the sense ‘search for something (on Google)’ (cf. the *po*-prefixed *poiskat'* ‘search’), whereas *naguglit'* is used in the sense ‘find something (on Google)’ (cf. the *na*-prefixed *najti* ‘find’). Another example are the three verbs from Article IV *zašerit'*, *pošerit'*, and *rašerit'*, which can all mean ‘share something on the internet’. In this respect, they have near-identical meaning, but the former two are also possible to use in the meaning ‘share’ in a broader sense. This meaning is shown in direct objects like *taksi* ‘taxi’ and *sčēt* ‘bill’, which, in the mass-media texts collected from Integrum, are found together with *zašerit'* and *pošerit'* but not with *rašerit'*, which is limited to the meaning ‘share something on the internet’. This is another example of “big” prefixes, like *za*- and *po*-, having a broader meaning than “smaller” ones, such as *raz*- (cf. section 5.4 *Small and Big Prefixes*).

Prefix variation can also express different degrees of intensity with which an action is carried out. An example of this type of prefix variation is *vypačkat'* vs. *ispačkat'* ‘soil’, where *vypačkat'* means ‘soil (much, or completely)’ whereas *ispačkat'* is used in the sense ‘soil (an otherwise clean area)’. A thing can thus be *ispačkannyj* ‘soiled [somewhat]’ but not necessarily yet *vypačkannyj* ‘soiled [completely]’, since the latter expresses a higher degree of dirtiness than the former (Dobrušina 1997, 123). The verbs *poguglit'* ‘google’ and *proguglit'* ‘google’ from Article III can also express different degrees of intensity with which the action ‘google’ is carried out: *poguglit'* can refer to a delimitative action: ‘google a little’, whereas *proguglit'* can refer to a much more thorough instance: ‘google everything’ or ‘google thoroughly’.

The primary reason behind prefix variation in loan verbs is thus different semantics, understood in a broad sense. Verbs with prefix variation can either refer to different actions, like *poguglit'* ‘google, search on Google’ vs. *naguglit'* ‘google, find on Google’, or to slightly different degrees of intensity with which an action is carried out, for example *poguglit'* ‘google a little’ and *proguglit'* ‘google thoroughly’. In older verbs, prefix variation can also arise due to stylistic

differences³⁷, but in the most recent loan verbs this is not an overly important factor, as most new verbs tend to be either colloquial or specialized, used predominantly in small and rather homogeneous groups of people where stylistics (presumably) is a less important matter.

Last, there is sometimes individual differences among different speakers in the choice of aspectual prefix for a certain verb. Some people prefer a particular verb A to verb B, whereas others prefer B to A. This can be seen in Article II, where some people wrote, for instance, *zaskrinšotit* ‘screenshot’ and others wrote *otskrinšotit* ‘screenshot’ in response to the stimulus *sdelat’ skrinšot* ‘make a screenshot’. Individual variation is also found in the answers to Ksenia Gordeeva’s (2018) survey, in which the respondents were asked to form a perfective verb in a certain context.

5.6 Criticism of the Overlap Hypothesis

The overlap hypothesis is not accepted by everyone, but this does not mean that all critics agree with the empty prefix hypothesis. This section looks at criticisms directed from different angles at the overlap hypothesis.

Interestingly, few (if any) scholars dispute the claim that verbs with similar meaning tend to form aspectual pairs with the same prefix. If criticism is raised, it is directed at the idea that prefixes would retain their meaning in these pairs. To scholars which hold this view, prefixes can indeed be completely “empty”, or “purely aspectual” markers of perfective aspect, even if they accept that verbs with similar meaning tend to take the same “empty” prefix in aspectual pairs.

Aleksandr Tixonov (1998) may be the staunchest defender of the empty prefix hypothesis. According to him, the two verbs in aspectual pairs (like *delat’–sdelat’* ‘do, make’ and *stavit’–postavit’* ‘place, put’) are inflected forms of the same lexeme and the prefixes are semantically empty, i.e. “purely aspectual”. He admits that the choice of “purely aspectual” prefix historically has been made on the basis of the meaning of the prefixes, so that the meaning of the prefix and the meaning of the base verb tend to overlap. Nonetheless, he advises against mixing “together analyses of two kinds: the establishment of etymological connections between the base and the prefix, their original semantic relations, and the elicitation of structural-semantic relationships between the prefix and the word-forming base in contemporary Russian” (Tixonov 1998, 31). He does not wish to ascribe to modern Russian what “was characteristic only historically, in the past, i.e. what does not exist in modern

³⁷ Compare for instance *prigotovit’* ‘prepare, cook’ with the colloquial synonym *sgotovit’* ‘prepare, cook’ (Dickey & Janda 2015, 75).

Russian”³⁸ (Tixonov 1998, 32), with which he has in mind lexical meaning besides the aspectual meaning [+ perfective] in “purely aspectual” prefixes. With regards to the question raised in this dissertation, one cannot find answers in Tixonov; he does not discuss prefixation of loan verbs, and his claim that any semantic similarity between prefix and verb is merely a historical fact cannot answer how prefixation and the formation of aspectual pairs works in new verbs.

Slightly milder criticism of the overlap hypothesis is found in Zaliznjak & Mikaëljan (2012, 55), who do not see any real disagreement between what they call the classical view (i.e. the “empty prefix hypothesis”), and the overlap hypothesis. They point out that the term “empty prefixes” in the Russian aspectological literature is as a rule used within quotation marks, or preceded by “*tak nazываемые*” ‘so-called’. In another article (Zaliznjak & Mikaëljan 2014), they argue that the overlap hypothesis (“Vey–Schooneveld effect”) is widely accepted by aspectologists, and that the question whether there is a semantic overlap between the prefix and the base verb or if the prefix is empty is a “quarrel over words and not the heart of the matter” (Zaliznjak & Mikaëljan 2014, 24). Since the meaning of the prefix is already present in the verb, it is in their view not wrong to talk about “empty prefixes”³⁹. However, prefix variation and the resulting semantic or constructional (Sokolova 2012) differences is a challenge to those who claim that prefixes are “purely aspectual”, as there are semantic differences between different prefixed verbs in verbs with prefix

³⁸ The relevant sentences in the original: “Здесь однако очень важно не смешивать анализы двух типов – определение историко-этимологических связей основы с приставкой, их первоначальных смысловых отношений, и выявление структурно-семантических отношений между приставкой и образующей основой в современном русском языке. Главная опасность, на наш взгляд, заключается в том, чтобы фактам современного русского языка не приписывалось то, что было присуще им лишь исторически, в прошлом, то есть то, чего уже нет в современном русском языке.”

³⁹ The relevant sentences in the original: “В книге Janda et al. 2013: 9 эффект взаимодействия «чистовидовой» приставки с семантикой простого имперфектива описан с помощью цветовой метафоры: если представить, что основа простого имперфектива голубого цвета и к ней добавляется приставка тоже голубого цвета, то происходит «эффект наложения», и приставка сливается с основой – и тем самым как бы исчезает. (Здесь лишь следует уточнить, что глагольная основа, конечно же, не голубого цвета, она только включает в себя голубой фрагмент; но приставка на этом фоне так или иначе «исчезает».) Но это и означает, что в данном случае она является «семантически пустой». Тем самым, спор о том, являются ли приставки в глаголах сов. вида, входящих в префиксальные пары, «пустыми» или же имеется эффект наложения семантики приставки на семантику простого имперфектива – это спор о словах, а не о сути явления, т.е. гипотеза «семантической пустоты» приставки (*emptiness hypothesis*) и гипотеза «наложения» значений (*overlap hypothesis*) – это одна и та же гипотеза.”

variation (see section 5.5 *Prefix Variation*, Articles III and IV, as well as Janda & Lyashevskaya 2011).

Another criticism, one from the opposite corner, is that there are *no* prefixed aspectual pairs and that the term “aspectual pair” is strictly grammatical and restricted to suffixed pairs like *rassmatrivat’–rassmotret’* ‘examine’. This is the view taken by Sergej Karcevskij (1962, 229) and Aleksandr Isačenko (1975, 361–365), but this point of view seems to lack modern adherents. According to this hypothesis, the relationship between the verbs in an aspectual pair is purely grammatical, and a prefix always adds some extra meaning to the base verb than just the grammatical meaning [+ perfective], making it impossible to use “aspectual pair” to refer to prefixed pairs. One might object that this view, that the prefix adds some extra meaning to the base verb, is exactly what the overlap hypothesis claims. However, the overlap hypothesis does not say that prefixed aspectual pairs do not exist, nor does not claim that the prefix necessarily *adds* meaning to the base verb, but that the meaning of the prefix is *neutralized* due to semantic overlap between prefix and verb. To a certain extent, this is a conflict about words: how strict should the definition of “aspectual pair” be? With a very strict definition of the “identical lexical meaning” supposedly a feature of aspectual pairs, there would not be any aspectual pairs, neither prefixed nor suffixed; all verbs would be monoaspectual and the term “aspectual pair” would become meaningless (cf. Šatunovskij 2009, 11). If, on the other hand, one accepts functional criteria to define aspectual pairs, or thinks that aspectual pair is a gradual, with more or less prototypical aspectual pairs, rather than a binary and absolute phenomenon, one must accept the existence of prefixed aspectual pairs, as well as suppletive pairs like *brat’–vzjat’* ‘take’.

A fourth criticism, or rather a nuancing of the overlap hypothesis is found in Xrakovskij (2015, 308–309) who sees different degrees of semantic overlap between verb stem and prefix in different prefixed aspectual pairs. He claims that some of these pairs show a clear overlap between the meaning of the prefix and the meaning of the verb stem (for instance *pod-* in verbs denoting actions that express some impact or movement ‘from below’, like *mesti–podmesti* ‘sweep’ and *žarit’–podžarit’* ‘fry’), whereas the overlap is much less visible and more abstract in other pairs. In a third group of verbs, we find pairs that have become so established that any semantic elements in the prefix have disappeared so that these prefixes can be called “purely aspectual”. An example of a “purely aspectual” prefix is, according to Xrakovskij (2015, 309), *po-* in the pairs *stroit’–postroit’* ‘build’ and *krasit’–pokrasit’* ‘paint, colour’.

A fifth criticism, which does not seem to have any explicit supporters, is from the imagined proponents of a truly “empty prefix” hypothesis that is discussed throughout the book *Why Russian Aspectual Prefixes Aren’t Empty* (Janda et al. 2013), which the authors claim is “tacitly assumed” in many textbooks of Russian

(Janda et al. 2013, 9). I will only mention the most important elements of this criticism. 1) aspectual prefixes only carry the meaning [+ perfective] when added to an imperfective base verb, 2) there is no connection between the meaning of the imperfective base verb and the prefix, 3) prefix variation should be rare or non-existent and, 4) secondary imperfectivization should be rare or non-existent. Since no one, to my knowledge, argues explicitly for this version of the empty prefix hypothesis, it could be tempting to ignore these ideas, but by pointing them out (and perhaps exaggerating them), Janda et al. can clarify certain assumptions that the overlap hypothesis can answer and the “empty prefix” hypothesis cannot.

Last, a possible critique against the overlap hypothesis could be that the relevant mechanism behind the formation of aspectual pairs is analogy⁴⁰ to older verbs, rather than overlap in meaning between verb stem and prefix. In this view, Russian speakers search (consciously or unconsciously) for an older verb with a similar meaning to the new verb, and use that older aspectual pair as a model for the new aspectual pair. While there indeed are many instances of analogy between older and newer verbs, some empirical facts of modern loan verbs show or at least suggest that analogy cannot be the whole answer.

First, the analogy hypothesis cannot predict what would happen if the new verb is not similar to any old verb, or if it is similar to many. Take *lajkat'–lajknut'* ‘like, press the “like” button’ as an example; many older verbs, which form aspectual pairs in different ways, can be said to be similar to *lajkat'–lajknut'*, for instance *xvalit'–poxvalit'* ‘praise’, *nažimat'–nažat'* ‘press’, and *nraivit'sja–ponraivit'sja* ‘please’, or perhaps to some other verb.

Second, not all new verbs form aspectual correlates in an identical way as a similar older verb. A concrete possible example mentioned by Jonas Gjervold (2014, 41) is *kommentit'* ‘comment’, which in his material is predominantly used together with *ot-*, whereas the older synonym *kommentirovat'* ‘comment’ forms a corresponding perfective with *pro-*⁴¹. He speculates that *(pro)kommentirovat'* is interpreted as a verb of speech⁴², whereas *(ot)kommentit'* is used predominantly on the internet, often refers to commenting other people’s written posts and less often to spoken words. It might be the case that Russian speakers interpret *(ot)kommentit'* as more similar in meaning to *otvečat'–otvetit'* ‘answer’ and other ‘reaction’-verbs

⁴⁰ Cf. the definition of analogy (analogical extensions) in Barðdal (2008, 2–3): “extensions of a grammatical pattern based on only one model item, because of structural or semantic similarities between the two items”.

⁴¹ Marina Glovinskaja (2008, 191) notes that *otkommentirovat'* is a synonymous “competitor” to *prokommentirovat'* in modern Russian. Maksim Krongauz (1998, 253) lists it is a “professional” verb.

⁴² The prefix *pro-* is strongly associated with verbs denoting ‘sound’ and ‘speech’ (Janda et al. 2013, 107–109).

prefixed with *ot-* (cf. Endresen et al. 2012, 260) than to *(pro)komentirovat'* 'comment', which most often refers to a speech act.

Third, some prefixes are not productive in modern Russian loan verbs. One of these is *v-*. The prefix *v-* is one of the least complex Russian prefixes, with one single meaning: 'into' (Janda et al. 2013, 41–42; Švedova et al. 1980, § 854), which should harmonize well with verbs meaning 'into', such as the loan verb *loginit'sja* 'log in'. *Loginit'sja* has a synonymous construction with a *v-*-prefixed verb, namely *vxodit' v sistemu* 'enter the system', but *loginit'sja*, like so many other verbs, instead forms a corresponding perfective with *za-*: *zaloginit'sja* (Krongauz 2016, 198), not *v-*⁴³. Another verb with other prefixes in older synonyms is the imperfective *livat'* 'leave (a computer game session)', which does not form a corresponding perfective with the prefixes meaning 'away', *u-* or *ot-*, but with *-nu-*: *livnut'* (Krongauz 2016, 247).

These examples might appear inconsistent with the overlap hypothesis at first glance, but the fact that *za-* and *-nu-* are very productive and are used in a number of different verbs does not mean that the overlap hypothesis is wrong *per se*. The overlap is especially clear in verbs with a spatial meaning, e.g. 'arrival' of *pri-* in *priparkovat'* 'park' and 'cover' of *za-* in *zakamuflirovat'* 'camouflage', and prefix variation shows that different prefixes underline different semantic nuances of a certain verb. The question why some prefixes, like *v-* and *u-*, are rare, unproductive or non-existent in modern Russian is beyond the scope of this dissertation. Semantic overlap between prefix and verb stem is not the complete answer to the question of how loan verbs form aspectual pairs in Russian, but it is an important part of the answer.

⁴³ In search engines, one can find a few examples of *vloginit'sja* (around two hundred on Google, as of 21 March 2022), but this number is miniscule compared to the hundreds of thousands of *zaloginit'sja*. The proportions are similar in the database Integrum, where there are 5 occurrences of *vloginit'sja* but 3,678 (including a smaller number of duplicates) of *zaloginit'sja* (as of 21 March 2022).

6 Conclusions

The questions this dissertation investigated were, first, how loan verbs form aspectual pairs in Russian and, second, which verbs take which aspectual affix. To investigate these questions, I used both quantitative and qualitative methods. The quantitative material consists of printed dictionaries (for older and more established loan verbs), online and/or slang dictionaries (for newer loan verbs), a survey of 120 native Russian speakers (for 17 recent loan verbs), and corpus data on two individual loan verbs with prefix variation. The qualitative analyses were made on seven prefixed verbs, four proposed corresponding perfectives for *guglit'* 'google': *poguglit'*, *zaguglit'*, *naguglit'*, and *proguglit'*, and three for *šerit'* 'share': *rassšerit'*, *pošerit'*, and *zašerit'*.

6.1 Main Findings

Four prefixes and one suffix are used to form corresponding perfective verbs of the majority of loan verbs in modern Russian, namely the prefixes *za-*, *pro-*, *s-*, *ot-*, and the suffix *-nu-*. Less common are the prefixes *vy-*, *na-*, *pri-*, *po-*, and *pod-* as well as the imperfectivizing suffix *-yva-/iva-*. The latter is found only in *ova-*verbs and in the formation of secondary imperfectives of prefixed perfective verbs.

A simplex loan verb in Russian is generally imperfective (for example *instagramit'* 'instagram', *šprexat'* 'speak', and *blefovat'* 'bluff'), but most verbs ending on *-ovat'* or *-evat'* are biaspectual (e.g. *robotizirovat'* 'robotize' and *èlektrificirovat'* 'electrify'). The mechanism behind the formation of aspectual pairs is thus almost always perfectivization. This is an indication of the imperfective aspect generally being more "basic" in modern Russian than the perfective, thus making the perfective aspect "marked".

Verbs belonging to the *-it'* and *-at'* conjugational classes form aspectual pairs with the suffix *-nu-* more often than verbs in the *-ovat'* class. Some prefixes used in old aspectual pairs are not used at all to form aspectual correlates of modern loan verbs: *vz-* (with the allomorphs *vs-* and *voz-*), *iz-* (*is-/izo-*), *pere-*, and *u-*.

A finding that has escaped the attention of earlier scholars is the high frequency of prefix variation in new verbs. Different prefixes may modify the meaning of the base verb to a greater or lesser degree, and it seems like *za-* is on its way to becoming

a “default” prefix, not only in new verbs overall, but also in verbs with prefix variation. *Za*-prefixed verbs tend to have a broader range of meanings than their alternative natural perfectives. *Zaguglit* ‘google’ and *zašerit* ‘share’ are, according to the results in Article III and IV, used in a broader set of contexts than verbs with other prefixes, such as *naguglit* ‘google’ and *rasšerit* ‘share’. This shows that *za*- has a wider semantic scope and a less specific lexical meaning than other prefixes, and that verbs with other prefixes are used in more narrow contexts than *za*-verbs.

6.2 Theoretical Implications

The findings of this dissertation are on the whole in line with the predictions from the overlap hypothesis. Aspectual prefixes in new verbs do not seem to be semantically “empty”; they share some meaning with the verb stem. The overlap in meaning between verb stem and prefix is seen particularly well in verbs that express some kind of spatial meaning, as well as in verbs with prefix variation, where different prefixes influence the meaning of the base verb in slightly different ways that are predictable with regards to the meaning of the prefix. The overlap hypothesis has a long history, it has been thoroughly investigated by Janda et al. and described by many others before them, and it is the most robust explanation of the distribution of aspectual prefixes in Russian overall. The fact that the overlap hypothesis also explains the choice behind aspectual prefixes in new aspectual pairs is a sign of its explanatory power.

The vast majority of new aspectual pairs are formed using affixes that correspond to a few very broad meanings: ‘result’ in the case of *za*-, ‘through’ in *pro*-, ‘[short] one-off act’ in *-nu*-, and ‘finish’ in *ot*-. The prefix *s*- lacks one clear prototypical meaning, but can be used to express a one-time act (as in *sblefovát* ‘bluff [once]’), a movement ‘from [the surface of]’ something (*skopipastít* ‘copy-paste’) or ‘from many places into one’ (*scentrirovát* ‘centre’). Other, “small” prefixes are often used in verbs with a concrete spatial meaning, like ‘arrival’ in *pri*-prefixed verbs like *priparkovát* ‘park’ and *prišvartovát* ‘moor’; or ‘spread in many directions’ in *raz*-prefixed verbs such as *rastiražirovát* ‘circulate, spread [a newspaper etc.]’ and *rasšerit* ‘share [files, photos etc. on the internet]’.

In some verbs, there is a clear overlap between verb stem and prefix. This is especially visible in verbs with a “small” prefix and in verbs with a spatial meaning, whereas the overlap in verbs with “bigger” prefixes tends to be more abstract. Prefix variation is also a good example that prefixes, to a greater or lesser degree, keep their meaning in so-called natural perfectives.

It is of course impossible to determine beyond all doubt that the meanings of prefix and verb overlap in prefixed aspectual pairs. Linguistic analysis cannot always point to objective evidence outside the human mind, as language in one way or

another is a product of the human mind. No one, as of 2022, has invented a “semantometer”⁴⁴ that independently of the linguistic intuition of humans would be able to discover the meaning or meanings associated with a certain morpheme, word, phrase, sentence or longer chunks of language. The only pieces of evidence we can use in order to define the meaning of morphemes, words etc. are linguistic works on the meaning of these linguistic units, which in the end rely on the intuition of native speakers.

The term “aspectual pair” is an important concept in Russian despite the fact that it is not always obvious whether two verbs constitute an aspectual pair. This fact alone is, however, not a reason to abandon the term completely, and it would be unwise to refrain from investigating “easier” aspectual pairs just because some other pairs are more difficult to establish. The term “aspectual pair” might refer to an ideal situation with no prefix variation or secondary imperfectives, but this ideal is not too uncommon. Verbal aspect, as well as the formation of aspectual pairs, is a productive and vital part of Russian grammar as long as new Russian verbs mark for aspect.

6.3 Directions for Future Research

The answer to the question in the beginning of the summary of this dissertation: “What more is there to be said about the essence of aspect and tense?” (Thelin 1978, 11) seems to be “quite a lot”. So much has been said precisely because the field contains much that can be said, and this dissertation is unlikely to be the last. Russian and Slavic aspect and aspectual pairs will likely remain a productive topic for linguistic research in the future.

Some questions that still lack a satisfying answer is whether there are better criteria for establishing aspectual pairs, how to teach aspect and aspectual pairs in Russian as a foreign language, and why there are individual differences in the choice of aspectual affix. A question concerning the morphology of Russian aspect that needs further research is why the suffix *-nu-* is so productive in modern, colloquial Russian, even in verbs that take some time to execute. This dissertation has also touched upon the issue of how important analogy, i.e. word-formation based on one similar model item, is in the formation of new aspectual pairs. At last, it can be asked if Russian verbal aspect is slowly becoming more of a purely grammatical and less of a lexical category, with *za-* taking on the role of a “pure” perfectivizer.

In all articles, I have noted that prefix variation is “a large and prospective field”, “a field with great potential for further research” etc. With these words, I had primarily semantic differences in mind, but prefix variation might also differ with

⁴⁴ This hypothetical invention comes from Janda et al. (2013, 199).

regard to constructional profiles, stylistics, and the intensity of the action denoted by the verb. Prefix variation is also highly relevant to the old question whether there are any full synonyms: words that can be used interchangeably in all conceivable contexts. The results of this dissertation are in line with the hypothesis that 100% synonymy does not exist, but some differences are stylistic in nature, rather than semantic, and it cannot be excluded *a priori* that full synonymy exist.

A field of linguistics that this dissertation has barely mentioned is pragmatics. Pragmatic questions of loan verbs and loanwords in general may refer to how loanwords can express prestige, social class, membership to a certain group, ridicule etc.; when and why a foreign word replaces a common native word (*xarassit'* instead of *domogatel'stvovat'* 'harass', *šerit'* instead of *delit'* 'share', etc.); or what the differences between verbs of different conjugational classes are (for example *ignorirovat'* vs. *ignorit'* 'ignore'). There can also be instances of borrowing the pragmatic use of a foreign word. Loan verbs and code switching in diaspora language and in Russian as a heritage language is another topic that this dissertation has only briefly mentioned.

Loan verbs and new aspectual pairs can also have a place in the teaching of Russian as a foreign language. Since many recent loan verbs that relate to modern technology are found in a multitude of languages across the world, these words will presumably be relatively easy to learn for many Russian learners across the globe. There are some differences in the frequency of prefixes in older and newer verbs (*po-* and *na-* are more frequent in older verbs, for instance), but the overlap hypothesis can nonetheless help students understand the logic behind the choice of aspectual prefix in both old and new aspectual pairs.

This dissertation has investigated linguistic productivity in one of the most complicated, morphologically diverse and "chaotic" parts of Russian grammar: verbal aspect. The results are relevant not only with regard to Russian and Slavic linguistics, but to productivity in languages in general. As Russian aspect shows, not all grammatical categories have a morphologically "regular" form or pattern that all new words adapt to. These grammatical categories are especially interesting from a productivity point of view, and show the importance of loanwords and other neologisms for linguistics.

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Appendix

All verbs in Article I

Verbs with a perfective partner verb in a dictionary

<u>Base verb</u>	<u>Perfective pair verb</u>	<u>English translation</u>
<i>anketirovat'</i>	<i>proanketirovat'</i>	survey
<i>arxivirovat'</i>	<i>zaarxivirovat'</i>	archive
<i>asfal'tirovat'</i>	<i>zaasfal'tirovat'</i>	asphalt
<i>betonirovat'</i>	<i>zabetonirovat'</i>	[cover with] concrete
<i>blefovat'</i>	<i>sblefovat'</i>	bluff
<i>buksovat'</i>	<i>zabuksovat', probuksovat'</i>	skid, spin
<i>gazovat'</i>	<i>gazanut'</i>	gas
<i>generirovat'</i>	<i>sgenerirovat'</i>	generate
<i>germetizirovat'</i>	<i>zagermetizirovat'</i>	seal [hermetically]
<i>dublirovat'</i>	<i>produblirovat', sdublirovat'</i>	duplicate
<i>žonglirovat'</i>	<i>požonglirovat'</i>	juggle
<i>indeksirovat'</i>	<i>proindeksirovat'</i>	index
<i>kal'kirovat'</i>	<i>skal'kirovat'</i>	calque
<i>kamuflirovat'</i>	<i>zakamuflirovat'</i>	camouflage
<i>kodirovat'</i>	<i>zakodirovat'</i>	code, encode
<i>kompostirovat'</i>	<i>zakompostirovat', prokompostirovat'</i>	punch [ticket etc.]
<i>konstruirovat'</i>	<i>skonstruirovat'</i>	construct
<i>kooperirovat'sja</i>	<i>skooperirovat'sja</i>	co-operate
<i>kserokopirovat'</i>	<i>otkserokopirovat'</i>	photocopy
<i>lobbirovat'</i>	<i>prolobbirovat'</i>	lobby
<i>massažirovat'</i>	<i>pomassažirovat'</i>	massage
<i>muxlevat'</i>	<i>smuxlevat', namuxlevat'</i>	cheat
<i>parkovat'</i>	<i>priparkovat'</i>	park
<i>prognozirovat'</i>	<i>sprognozirovat'</i>	prognosticate
<i>programmirovat'</i>	<i>zaprogrammirovat'</i>	program

<i>prodjusirovat'</i>	<i>sprodjusirovat'</i>	produce [music album]
<i>rezervirovat'</i>	<i>zareservirovat'</i>	reserve
<i>rixtovat'</i>	<i>otrixtovat'</i>	flatten, straighten
<i>skanirovat'</i>	<i>otskanirovat', soskanirovat', proskanirovat'</i>	scan
<i>testirovat'</i>	<i>protestirovat'</i>	test
<i>tiražirovat'</i>	<i>rastiražirovat'</i>	circulate
<i>transkribirovat'</i>	<i>protranskribirovat'</i>	transcribe
<i>fokusirovat'</i>	<i>sfokusirovat'</i>	focus
<i>fontanirovat'</i>	<i>zafontanirovat'</i>	gush
<i>formatirovat'</i>	<i>otformatirovat'</i>	format
<i>fraxtovat'</i>	<i>zafraxtovat'</i>	charter, transport
<i>xromirovat'</i>	<i>otxromirovat'</i>	plate with chrome
<i>xronometrirovat'</i>	<i>zaxronometrirovat', proxronometrirovat'</i>	measure time
<i>centrirovat'</i>	<i>otcentrirovat', scentrirovat'</i>	centre
<i>švartovat'</i>	<i>prišvartovat', ošvartovat', zašvartovat'</i>	moor
<i>špaklevat'</i>	<i>zašpaklevat'</i>	spackle
<i>štrixovat'</i>	<i>zaštrixovat'</i>	cross-hatch
<i>šuntirovat'</i>	<i>zašuntirovat'</i>	shunt, divert

Verbs with an imperfective pair verb (in the Russian National Corpus)

<u>Base verb</u>	<u>Imperfective pair verb</u>	<u>English translation</u>
<i>avtorizovat'</i>	<i>avtorizovyvat'</i>	authorize
<i>kontratakovat'</i>	<i>kontratakovyvat'</i>	counter-attack
<i>liberalizovat'</i>	<i>liberalizovyvat'</i>	liberalize
<i>formalizovat'</i>	<i>formalizovyvat'</i>	formalize

Imperfectiva tantum

<u>Verb</u>	<u>English translation</u>
<i>absoljutirovat'</i>	absolutize
<i>bankovat'</i>	bank, control money (in card games)
<i>barražirovat'</i>	(about air forces) patrol
<i>blikovat'</i>	glare
<i>demonizirovat'</i>	demonize
<i>implicirovat'</i>	imply
<i>ingibirovat'</i>	(chemistry) inhibit

<i>kvantovat'</i>	(physics) quantize
<i>kollapsirovat'</i>	collapse
<i>komikovat'</i>	entertain, amuse
<i>kommunicirovat'</i>	communicate
<i>konvergirovat'</i>	converge
<i>konferirovat'</i>	confer
<i>konfliktovat'</i>	conflict, clash
<i>korrelirovat'</i>	correlate
<i>korrigirovat'</i>	correct
<i>levitirovat'</i>	levitate
<i>ljuminescirovat'</i>	luminesce
<i>mandražirovat'</i>	be nervous or distressed
<i>masturbirovat'</i>	masturbate
<i>mitingovat'</i>	hold a political rally or meeting
<i>nostal'girovat'</i>	feel nostalgic
<i>onanirovat'</i>	masturbate
<i>panikovat'</i>	panic
<i>patrulirovat'</i>	patrol
<i>pedalirovat'</i>	pedal
<i>piketirovat'</i>	picket
<i>pilotirovat'</i>	pilot, fly
<i>piratstvovat'</i>	pirate
<i>prevalirovat'</i>	prevail
<i>refleksirovat'</i>	reflex, respond to a stimulus
<i>stagnirovat'</i>	stagnate
<i>farcevat'</i>	sell illicit goods [in the USSR]
<i>xippovat'</i>	live like a hippie
<i>špricevat'</i>	squirt; syringe

Biaspectual or imperfectiva tantum

<u>Verb</u>	<u>English translation</u>
<i>akcionirovat'</i>	corporatize
<i>anodirovat'</i>	anodize
<i>armirovat'</i>	reinforce [concrete]
<i>arxaizirovat'</i>	archaize
<i>blanširovat'</i>	(cooking) blanch
<i>diskussirovat'</i>	discuss
<i>distancirovat'</i>	distance
<i>ionizirovat'</i>	ionize

<i>klonirovat'</i>	clone
<i>kollektivizirovat'</i>	collectivize
<i>komissovat'</i>	transfer to the reserve
<i>komercializirovat'</i>	commercialize
<i>lidirovat'</i>	lead, be in the lead
<i>manifestirovat'</i>	manifest
<i>meditirovat'</i>	meditate
<i>melirovat'</i>	highlight, make [hair] ombré
<i>passerovat'</i>	(cooking) brown
<i>protokolirovat'</i>	protocol, write protocol
<i>retranslirovat'</i>	retransmit
<i>tipizirovat'</i>	typify
<i>xedžirovat'</i>	(finance) hedge
<i>èregirovat'</i>	(anatomy) erect
<i>èrodirovat'</i>	erode

Biaspectual or perfectiva tantum

<u>Verb</u>	<u>English translation</u>
<i>marginalizirovat'</i>	marginalize
<i>nokautirovat'</i>	knock out
<i>telefonizirovat'</i>	equip with telephones

Unclear

<u>Verb</u>	<u>English translation</u>
<i>kadrirovat'</i>	crop [photo]

Biaspectual verbs

<u>Verb</u>	<u>English translation</u>
<i>abortirovat'</i>	abort
<i>absoljutizirovat'</i>	absolutize
<i>avtomatizirovat'</i>	automatize
<i>agregirovat'</i>	aggregate
<i>adaptirovat'</i>	adapt
<i>adsorbirovat'</i>	absorb
<i>akkumulirovat'</i>	accumulate
<i>aktivirovat'</i>	activate
<i>aktirovat'</i>	file [an act], register

<i>aktualizirovat'</i>	actualize
<i>aktualizovat'</i>	actualize
<i>akcentuirovat'</i>	accentuate
<i>amplificirovat'</i>	amplify
<i>aneksirovat'</i>	annex
<i>annigilirovat'</i>	annihilate
<i>apksimirovat'</i>	approximate
<i>atomizirovat'</i>	atomize
<i>atributirovat'</i>	attribute
<i>affilirovat'</i>	affiliate
<i>belletrizirovat'</i>	fictionalize
<i>briketirovat'</i>	briquette, make briquets
<i>vakuumirovat'</i>	vacuumize
<i>vakcinirovat'</i>	vaccinate
<i>verbalizovat'</i>	verbalize
<i>verificirovat'</i>	verify
<i>vizualizirovat'</i>	visualize
<i>giperbolizirovat'</i>	hyberbolize
<i>gipostazirovat'</i>	hypostatize
<i>gomogenizirovat'</i>	homogenize
<i>gospitalizirovat'</i>	hospitalize
<i>dezavuirovat'</i>	disavow
<i>delegirovat'</i>	delegate
<i>demontirovat'</i>	dismantle
<i>dempfirovat'</i>	(mechanics) damp, suppress vibrations, dampen
<i>denominirovat'</i>	denominate
<i>denonsirovat'</i>	denounce
<i>depolitizirovat'</i>	de-politicize
<i>desantirovat'</i>	land [troops]
<i>destabilizirovat'</i>	destabilize
<i>diversificirovat'</i>	diversify
<i>dislocirovat'</i>	deploy, station
<i>dozirovat'</i>	dose
<i>zombirovat'</i>	zombify
<i>ideologizirovat' sja</i>	ideologize
<i>immobilizovat'</i>	immobilize
<i>immunizirovat'</i>	immunize
<i>implantirovat'</i>	implant
<i>inaktivirovat'</i>	inactivate

<i>investirovat'</i>	invest
<i>induktirovat'</i>	(physics) induce
<i>iniciirovat'</i>	initiate
<i>inkorporirovat'</i>	incorporate
<i>inspirirovat'</i>	inspire
<i>installirovat'</i>	install
<i>inscenirovat'</i>	adapt [for theatre or stage], dramatize
<i>intensificirovat'</i>	intensify
<i>interpretirovat'</i>	interpret
<i>introducirovat'</i>	(botany) introduce [new species]
<i>kalandrirovat'</i>	calender
<i>kartirovat'</i>	chart, map
<i>katalizirovat'</i>	catalyse
<i>katalogizirovat'</i>	catalogue, catalogize
<i>katapul'tirovat'</i>	catapult, eject [from an airplane]
<i>komp'juterizovat'</i>	computerize
<i>konkretizirovat'</i>	concrete
<i>korrodirovat'</i>	corrode
<i>korrozirovat'</i>	corrode
<i>korrumpirovat'</i>	corrupt
<i>kremirovat'</i>	cremate
<i>kupirovat'</i>	dock, cut off [a section of an animal's tail]
<i>laminirovat'</i>	lamine
<i>legirovat'</i>	alloy
<i>legitimizirovat'</i>	legitimize
<i>limitirovat'</i>	limit
<i>licenzirovat'</i>	licence
<i>maksimizirovat'</i>	maximize
<i>meliorirovat'</i>	meliorate, reclaim [land]
<i>metallizirovat'</i>	metallize
<i>militarizovat'</i>	militarize
<i>mimikrirovat'</i>	(biology) mimic
<i>minimizirovat'</i>	minimize
<i>mifologizirovat'</i>	mythologize
<i>mul'čirovat'</i>	mulch
<i>mutirovat'</i>	mutate
<i>nominirovat'</i>	nominate
<i>njuansirovat'</i>	nuance
<i>okkupirovat'</i>	occupy

<i>optimizirovat'</i>	optimize
<i>panirovat'</i>	bread, coat [with breadcrumbs]
<i>pasterizovat'</i>	pasteurize
<i>perlustrirovat'</i>	perlustrate
<i>personificirovat'</i>	personify
<i>perforirovat'</i>	perforate
<i>pozicionirovat'</i>	position
<i>privatizirovat'</i>	privatize
<i>proklamirovat'</i>	proclaim
<i>prolongirovat'</i>	prolong
<i>prostituirovat'</i>	prostitute
<i>ranžirovat'</i>	range, rank
<i>racionalizovat'</i>	rationalize
<i>reanimirovat'</i>	reanimate
<i>rekonstruirovat'</i>	reconstruct
<i>rekrutirovat'</i>	recruit
<i>relaksirovat'</i>	relax
<i>repressirovat'</i>	repress
<i>restrukturizirovat'</i>	restructure
<i>robotizirovat'</i>	robotize
<i>segmentirovat'</i>	segment
<i>sekvestirovat'</i>	sequester
<i>sensibilizirovat'</i>	sensitize
<i>sertificirovat'</i>	certify
<i>solidarizovat'sja</i>	solidarize
<i>sponsirovat'</i>	sponsor
<i>stabilizirovat'</i>	stabilize
<i>startovat'</i>	start
<i>tabuirovat'</i>	taboo
<i>torpedirovat'</i>	torpedo
<i>travmirovat'</i>	traumatize
<i>translirovat'</i>	broadcast
<i>transplantirovat'</i>	transplant
<i>transponirovat'</i>	transpose
<i>unificirovat'</i>	unify
<i>fagocitirovat'</i>	(biology) phagocytize
<i>fazirovat'</i>	(technology) align
<i>finiširovat'</i>	finish
<i>fiorirovat'</i>	flouridate
<i>fundirovat'</i>	base

<i>centrifugirovat'</i>	centrifuge
<i>èksgumirovat'</i>	exhume, disinter
<i>èksplicirovat'</i>	explicate
<i>èkstrapolirovat'</i>	extrapolate
<i>èlektrificirovat'</i>	electrify
<i>èmitirovat'</i>	(finance) issue [e.g. shares], (chemistry) emit
<i>èpatirovat'</i>	amaze, shock
<i>èstetizirovat'</i>	aesthetisize
<i>ètapirovat'</i>	escort, transport under guard
<i>èšelonirovat'</i>	(military) echelon, position [people] at intervals

All verbs in Article II

<u>Imperfective</u>	<u>Most common perfective</u>	<u>English translation</u>
<i>lajkat'</i>	<i>lajknut'</i>	like (on social media)
<i>tvitit'</i>	<i>tvitnut'</i>	tweet
<i>fotošopit'</i>	<i>otfotošopit'</i>	photoshop
<i>repostit'</i>	<i>repostnut'</i>	repost
<i>installirovat'</i>	<i>installirovat'</i> (<i>proinstallirovat'</i>)	install
<i>èsèmèsit'</i>	<i>èsèmèsnut'</i>	text
<i>kopipastit'</i>	<i>kopipastnut'</i>	copy-paste
<i>guglit'</i>	<i>zaguglit'</i>	google
<i>xèštegít'</i>	<i>xèštegnut'</i>	hashtag
<i>fejspalmit'</i>	<i>fejspalmnut'</i>	facepalm
<i>apgrejdit'</i>	<i>proapgrejdit'</i>	upgrade
<i>jandeksit'</i>	<i>jandeksnut'</i>	yandex (search on Yandex)
<i>instagramit'</i>	<i>zainstagramit'</i>	instagram
<i>bèkapit'</i>	<i>bèkapnut'</i>	back up
<i>skrinšotit'</i>	<i>zaskrinšotit'</i>	screenshot
<i>selfit'sja</i>	<i>zaselfit'sja</i>	[take a] selfie
<i>snapčatit'</i>	<i>snapčatnut'</i>	snapchat
<i>interesovat'</i>	<i>zainteresovat'</i>	interest
<i>prognozirovat'</i>	<i>sprognozirovat'</i>	prognosticate

All verbs in Articles III and IV

<u>Imperfective</u>	<u>Perfectives</u>	<u>English translation</u>
<i>guglit'</i>	<i>poguglit'</i> , <i>zaguglit'</i> , <i>naguglit'</i> , <i>proguglit'</i> Usage notes: <i>poguglit'</i> 'search (using an internet search engine)', <i>zaguglit'</i> 'search, find', <i>naguglit'</i> 'find', <i>proguglit'</i> 'search thoroughly'	google
<i>šerit'</i>	<i>rasšerit'</i> , <i>pošerit'</i> , <i>zašerit'</i> Usage notes: <i>rasšerit'</i> 'share file, link etc. on the internet', <i>pošerit'</i> , <i>zašerit'</i> 'share, also: share file, link etc. on the internet'	share

All borrowed verbs in *Slovar' jazyka interneta.ru*
(Krongauz 2016)

Krongauz's dictionary does not use the term "aspectual pairs". Included in this list are borrowed verbs and their prefixed or suffixed derivatives that the dictionary lists without special usage notes.

<u>Imperfective</u> (or biaspectual)	<u>Perfective</u>	<u>English translation</u>
<i>agrit'</i>	-	aggress, make upset
<i>banit'</i>	<i>zabanit'</i>	ban, block
<i>battxertit'</i>	-	be butthurt, be overly upset over a perceived injustice
<i>bložit'</i>	-	blog (usage note: rare)
<i>bombit'</i>	<i>bombanut'</i>	be angry or disappointed (from "bomb")
<i>gamat'</i>	-	game, play computer games
<i>guglit'</i>	<i>zaguglit'</i> , <i>poguglit'</i> , <i>proguglit'</i> , <i>naguglit'</i> , <i>vyguglit'</i>	google
<i>klikat'</i>	<i>kliknut'</i>	click

<i>kopipastit'</i>	<i>skopipastit'</i>	copy-paste
<i>lagat'</i>	-	lag
<i>lajkat'</i>	<i>lajknut', zalajkat,</i> <i>oblajkat', otlajkat', polajkat'</i>	like (on social media, on the internet)
<i>lajkat' sja</i>	-	press like on each other's posts
<i>livnut' (pf.)</i>	-	leave [an online computer game]
<i>loginit' sja</i>	<i>zaloginit' sja</i>	log in
<i>lolirovat'</i>	-	lol, laugh [at someone], ridicule
<i>lulzovat'</i>	-	lolz, laugh [at someone], ridicule
<i>memetizirovat' sja</i>	-	become a meme
<i>oftopit'</i>	-	mention something that is deemed <i>off topic</i>
<i>reloginit' sja</i>	<i>relognut' sja</i>	log in anew
<i>pereloginit' sja/</i> <i>perelognut' sja</i>	-	log in anew
<i>postit'</i>	<i>zapotit'</i>	post, publish (on the internet)
<i>razloginit' sja</i>	-	log out
<i>repostit'</i>	<i>repostnut'</i>	repost (on the internet)
<i>rulit'</i>	-	rule, excel
<i>selfit'</i>	<i>zaselfit'</i>	selfie, take a selfie
<i>skajpovat' /skajpit' sja</i>	-	skype
<i>sloupočit'</i>	-	react slowly (from "slowpoke")
<i>spamit'</i>	<i>zaspamit'</i>	spam
<i>tegit'</i>	<i>zategit'</i>	(internet) tag
<i>trollirovat'</i>	-	troll
<i>trollit'</i>	<i>zatrollit', protrollit'</i>	troll
<i>fejlit'</i>	<i>zafejlit'</i>	fail
<i>fejspalmit'</i>	-	facepalm
<i>fludit'</i>	-	flood, send excessive amounts of messages on the internet
<i>forsit'</i>	-	force
<i>frendit'</i>	<i>zafrendit'</i>	add someone as a friend [on social media]

<i>xikkovat'</i>	-	isolate oneself from society (from Japanese <i>hikokomori</i> 'person who isolates from society, often for a long time and in their own room')
<i>xolivarit'</i>	-	debate, dispute, (from "holy war")
<i>čatit'sja</i>	-	(internet) chat
<i>čekinit'sja</i>	<i>začekinit'sja</i>	check in
<i>šarit'</i>	<i>rasšarit'</i>	share
<i>juzat'</i>	-	use

All borrowed verbs in Wiktionary

This part contains all verbs that either have a pair verb or are marked as "biaspectual" in the following tags in the Russian version of Wiktionary (<http://ru.wiktionary.org>: last retrieved 13 October 2020): *kompjuternye terminy* 'computer terms' + *internetovskij žargon* 'internet jargon' + *komp'juternyj žargon* 'computer jargon' + *neologizmy* 'neologisms'.

<u>Imperfective</u> <u>(or biaspectual)</u>	<u>Perfective</u>	<u>English translation</u>
<i>agrit'</i>	<i>sagrit'</i>	aggress, make upset
<i>apat'</i>	<i>apnut'</i>	press the "up" button
<i>apgrejdit'</i>	<i>proapgrejdit'</i>	upgrade
<i>arxivirovat'</i>	<i>zaarxivirovat'</i>	archive
<i>autit'</i>	<i>zaautit'</i>	out, reveal someone as LGBT
<i>banit'</i>	<i>zabanit'</i>	ban
<i>bločit'</i>	<i>zabločit'</i>	block
<i>buxštapirovat'</i>	<i>probuxštapirovat'</i>	spell
<i>bèkapit'</i>	<i>zabèkapit'</i>	back up
<i>grabit'</i>	<i>sgrabit'</i>	capture, save (from "grab")
<i>guglit'</i>	<i>zaguglit', poguglit', vyguglit', naguglit', proguglit'</i>	google

<i>deklarirovat'</i>	(biasp.)	declare
<i>denormalizovyvat'</i>	<i>denormalizovat'</i>	denormalize
<i>dizassemblirovat'</i>	(biasp.)	disassemble
<i>inicializirovat'</i>	(biasp.)	initialize
<i>interpretirovat'</i>	(biasp.)	interpret
<i>kastovat'</i>	<i>skastovat'</i>	(gaming) cast a spell [on another player]
<i>klikat'</i>	<i>kliknut'</i>	click
<i>konvertirovat'</i>	(biasp.)	convert
<i>kopipastit'</i>	<i>zakopipastit', kopipastnut'</i>	copy-paste
<i>kraudfandit'</i>	<i>nakraudfandit'</i>	crowdfund
<i>krjakat'</i>	<i>krjaknut'</i>	crack [a computer program]
<i>loginit'sja</i>	<i>zaloginit'sja</i>	log in
<i>minimizirovat'</i>	(biasp.)	minimize
<i>piarit'</i>	<i>propiarit'</i>	advertise, promote
<i>pikselit'</i>	<i>zapikselit'</i>	pixelate
<i>portirovat'</i>	(biasp.)	(programming) port
<i>postit'</i>	<i>zapostit'</i>	post
<i>priotirizirovat'</i>	(biasp.)	prioritize
<i>promoutirovat'</i>	(biasp.)	promote
<i>redaktirovat'</i>	<i>otredaktirovat'</i>	edit
<i>regat'sja</i>	<i>zaregat'sja</i>	register, register oneself
<i>retvitit'</i>	<i>retvitnut'</i>	retweet
<i>skanirovat'</i>	<i>otskanirovat', soskanirovat', scan proskanirovat'</i>	scan
<i>skrinit'</i>	<i>soskrinit', zaskrinit'</i>	screenshot
<i>spamit'</i>	<i>zaspamit'</i>	spam, send [a lot of] spam mail
<i>spojlerit'</i>	<i>prospojlerit'</i>	spoil, reveal [the ending of a story]
<i>trassirovat'</i>	(biasp.)	trace (programming)
<i>trollit'</i>	<i>zatrollit', potrollit'</i>	troll, harass
<i>tvitit'</i>	<i>tvitnut'</i>	tweet
<i>forsit'</i>	<i>poforsit', zaforsit'</i>	force
<i>frendit'</i>	<i>zafrendit'</i>	befriend, add as friend [on social media]
<i>xajpit'</i>	<i>xajpanut'</i>	hype
<i>xakat'</i>	<i>xaknut'</i>	hack
<i>čekinit'sja</i>	<i>začekinit'sja</i>	check in

Gjervold's (2014) list of prefixed verbs

The perfective partner verbs in this section are, first, regarded as “natural perfective” according to Gjervold's informants and, second, the most common on the internet according to Gjervold's searches. The English translations are also by Gjervold.

<u>Imperfective</u>	<u>Perfective</u>	<u>English translation</u>
<i>apruvit'</i>	<i>zaapruvit'</i>	approve
<i>arbajtat'</i>	<i>otarbajtat'</i>	work
<i>attačit'</i>	<i>priattačit'</i>	attach
<i>baksit'</i>	<i>obbaksit'</i>	pay (in foreign currency)
<i>banit'</i>	<i>zabanit'</i>	ban
<i>gamat'sja</i>	<i>sgamat'sja</i>	play
<i>guglit'</i>	<i>naguglit'</i>	google
<i>džoinit'sja</i>	<i>zadžoinit'sja</i>	join
<i>donatit'</i>	<i>zadonatit'</i>	put real money into a game
<i>zipovat'</i>	<i>zazipovat'</i>	pack (usually computer files)
<i>kvotit'</i>	<i>zakvotit'</i>	quote
<i>kentovat'</i>	<i>skentovat'</i>	befriend
<i>kommentit'</i>	<i>otkommentit'</i>	comment
<i>konnektit'sja</i>	<i>zakonnektit'sja</i>	connect
<i>knokat'</i>	<i>zaknokat'</i>	know/knock
<i>lajkat'</i>	<i>zalajkat'</i>	“like” on facebook
<i>loginit'sja</i>	<i>zaloginit'sja</i>	log in
<i>logoffit'sja</i>	<i>otlogoffit'sja</i>	log off
<i>postit'</i>	<i>zapostit'</i>	publish on an online forum
<i>spamit'</i>	<i>zaspamit'</i>	spam
<i>tvitit'</i>	<i>zatvitit'</i>	publish on Twitter
<i>trollit'</i>	<i>potrollit'</i>	troll, provoke
<i>fejsit'</i>	<i>zafejsit'</i>	hit in the face/spend time on facebook
<i>fludit'</i>	<i>zafludit'</i>	write a lot/comment excessively
<i>follovit'</i>	<i>zafollovit'</i>	“follow” somebody on twitter

<i>forvardit'</i>	<i>otforvardit'</i>	forward a message
<i>čekinit'sja</i>	<i>začekinit'sja</i>	register one's location
<i>šprexat'</i>	<i>prošprexat'</i>	say/speak

Other sources

<u>Imperfective</u>	<u>Perfective</u>	<u>English translation</u>
<i>aplait'sja</i>	<i>zaaplait'sja</i>	apply
<i>ab'juzit'</i>	<i>zaab'juzit'</i>	abuse
<i>bukat'</i>	<i>zabukat'</i>	book
<i>vajpat'</i>	<i>vajpnut'</i>	erase, wipe, remove [computer files]
<i>delitit' (or deletit')</i>	<i>delitnut' (or deletnut')</i>	delete
<i>draftit'</i>	<i>zadraftit', nadraftit'</i>	draft
<i>ignorit'</i>	<i>proignorit'</i>	ignore
<i>kanselit'</i>	<i>zakanselit', kansel'nut'</i>	cancel; blacklist
<i>konfirmit'</i>	<i>zakonfirmit'</i>	confirm
<i>m'jutit'</i>	<i>zam'jutit'</i>	mute
<i>negošiirovat'</i>	<i>snegošiirovat'</i>	negotiate
<i>pikapit'</i>	<i>zapikapit'</i>	pick up, seduce (for romantic purposes)
<i>postponit'</i>	<i>zapostponit'</i>	postpone
<i>sabmitit'</i>	<i>zasabmitit'</i>	submit
<i>sajnit'</i>	<i>zasajnit'</i>	sign
<i>svajpit'</i>	<i>svajpnut'</i>	swipe
<i>fajntjunit'</i>	<i>podfajntjunit'</i>	fine-tune
<i>fakapit'</i>	<i>profakapit', zafakapit'</i>	make a mistake, fuck up
<i>fidbèčit'</i>	<i>otfidbèčit'</i>	give feedback
<i>folovapit'</i>	<i>zafolovapit'</i>	follow up
<i>xarassit'</i>	<i>zaxarassit'</i>	harass
<i>čekat'</i>	<i>pročekat', čeknut'</i>	check

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