

Searching and finding the meaning of new verbs Prefix variation of the Russian verb *гуглить* ‘to google’

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This article investigates the semantics of four different so-called natural perfectives of the Russian verb *гуглить* ‘to google’, namely *погуглить*, *загуглить*, *нагуглить* and *прогуглить*. By analysing the co-occurrences—adverbs and direct objects—of each verb in the database of Russian media texts Integrum, I conclude that the verbs are not synonymous, and that the meanings of each prefix influence the semantics of the prefixed verbs.

1. Introduction: aspectual pairs in Russian

Anyone who has studied some Russian should know that Russian verbs are divided into two aspects—imperfective and perfective—and that most verbs have a partner verb with the same lexical meaning in the other aspect, with both together forming an aspectual pair. Well-known examples of aspectual pairs are *делать–сделать* ‘to do, to make’, *писать–написать* ‘to write’ and *решать–решить* ‘to solve’. Broadly speaking, imperfective verbs (the first in the example pairs) are used to express a process or an ongoing action, a repeated or habitual action, or to assert the existence of an activity, whereas perfective verbs (the second verb in the mentioned pairs, henceforward referred to as the *natural perfective*¹ of the imperfective base verb) are used to express the result or the completion of an action or the fact that the action was carried out once.

However, as Janda and Lyashevskaya (2011) have noted, not all verbs come in pairs of two. About a quarter of all non-prefixed imperfective verbs have more than one perfective partner verb (Janda and Lyashevskaya 2011, 150). One example is *грузить* ‘to load’, which has three natural perfectives: *загрузить*, *нагрузить* and *погрузить*. They call this phenomenon “prefix variation” and conclude that different prefixed verbs in such “pairs” have, to a greater or lesser degree, different meaning, and that the meaning of the prefix influences the meaning of the verb. The aim of this article is to test this hypothesis on the micro level, on one verb that entered the Russian language recently: *гуглить* ‘to google’. According to dictionaries,

¹This term is taken from Janda (2007).



гуглить ‘to google’ has four natural perfectives: *загуглить*, *нагуглить*, *погуглить* and *прогуглить*. In this article, I explore the semantics of these verbs by collecting and analysing the direct objects and adverbs which each of these prefixed verbs take in Russian media texts from 2016 and 2017, gathered from the *Integrum* database.²

Aspectual pairs are formed in a number of ways, for example by suffixation (e.g. *показывать–показать* ‘to show’), prefixation (e.g. *писать–написать* ‘to write’) and suppletion (e.g. *брать–взять* ‘to take’), but this article discusses no other methods of forming aspectual pairs than prefixation. A widespread assumption about verbal prefixation in Russian has been that some prefixes, namely those used to form a natural perfective of a non-prefixed imperfective verb, are semantically ‘empty’, lacking any meaning besides the feature [+perfective aspect] (cf. Tixonov 1964). However, if [+ perfective aspect] is the only feature of these prefixes, one has to ask why all aspectual pairs are not formed the same way, and why there would be a need for more than one prefix to express the feature [+ perfective aspect]. Janda’s and Lyashevskaya’s answer is twofold. First, they claim that prefixes are never semantically empty, but that the prefix of a natural perfective expresses a meaning similar to that of the base verb (as was already suggested by van Schooneveld (1958); Janda et al. (2013) call it the *overlap hypothesis*). Second, they say that prefix variation allows for the expression or emphasis of different semantic elements of the base verb (Janda and Lyashevskaya 2011, 165–6).

Why choose *гуглить* ‘to google’? The main reason is that this is a new verb, and new verbs are interesting in the following sense: English, the language from which *гуглить* ‘to google’ originally comes, does not express imperfective or perfective aspect morphologically, and therefore Russian speakers have no cues from English for the formation of a natural perfective of *гуглить*, or any other new verb entering the language. Studying the formation of aspectual pairs of new verbs, which tend to form aspectual pairs via prefixation (Čertkova and Či-Čang 1998, 17; Olsson 2018, 233–4), is thus a good way to study the meaning(s) of prefixes, if we accept the overlap hypothesis. The company whose name *гуглить* comes from—Google³—was founded in 1998, so the verb *гуглить* is, at the time of writing, at most 21 years old. (In reality, it seems to be younger than that: the oldest texts containing the verb *гуглить* in *Integrum* are from 2003.)

Among scholars discussing borrowed verbs in Russian and the formation of aspectual pairs (see for example Mučnik 1966, Avilova 1968, Čertkova and Či-Čang 1998, Horiguchi 2018, Olsson 2018, forthcoming), little or no attention has been given to prefix variation. An exception is Gjervold (2013 and 2014), who studied the most common prefixes of new, colloquial verbs in Russian and noted that *за-* is a much more common prefix than any other in this group of verbs.

2. The verb *гуглить* in earlier research and in dictionaries

The starting point of this article is the verb *гуглить*, whose dictionary definition is (according to Krongauz (2016, 33) and Wiktionary⁴) is ‘to search for information, using the search engine

²Homepage: <http://integrumworld.com/>

³Homepage: <https://www.google.com/>

⁴<https://ru.wiktionary.org/wiki/гуглить> (August 5, 2019)

Google'. Other possible meanings, besides 'to search for information [using Google]', are 'to find information', 'to search (but not find)' and 'to make many Google searches'. *Гуглить* is an imperfective verb, and it forms aspectual pairs, which means it has natural perfectives, but what does a "natural perfective of *гуглить*" mean? One way to define a natural perfective is found in Janda (2007, 609): "the logical completion of the corresponding Imperfective Activity". Another possible definition is found in Maslov (1984, 84), who, without using the term "natural perspective" itself, specifically stresses that the verbal activity described by the imperfective base verb occurred once. A natural perfective of *гуглить* might therefore have two possible interpretations: one to mean the logical completion of *гуглить*, stressing the meaning 'to find something' (i.e. the result of the search), and the other 'to carry out one Google search'.

New verbs are, for obvious reasons, not listed in any dictionaries, except (in the best case) the very newest. In this study I have consulted the dictionary of modern Russian *Словарь языка интернета.ru* 'Dictionary of the language on internet.ru' (Krongauz 2016) and the online dictionary Wiktionary⁵ (both the Russian and the English versions), which is updated regularly. The printed *Словарь языка интернета.ru* does not explicitly mention the terms 'aspectual pair', 'corresponding perfective verbs' or 'natural perfectives', but it notes that *гуглить* can form the following prefixed perfective verbs: *погуглить*, *загуглить* and (less commonly) *прогуглить*, which mean 'to search on the internet'; as well as *нагуглить* and (much more rarely) *выгуглить*, which both mean 'to find on the internet'. It does not seem unreasonable to assume that the dictionary regards these verbs as natural perfectives, since it does not mention any special meanings other than 'to search' or 'to find'. The English version of Wiktionary lists two natural perfectives of *гуглить*, namely *погуглить* and *загуглить*,⁶ whereas the Russian version lists five: *загуглить*, *погуглить*, *выгуглить*, *нагуглить* and *прогуглить*.⁷

According to an MA thesis from 2014 from the Arctic University of Norway⁸ which studied prefix variation in a number of colloquial loan verbs, *гуглить* "takes a whopping eleven prefixes" (Gjervold 2014, 35) to form natural perfectives, namely *в-*, *вз-*, *вы-*, *за-*, *на-*, *о-*, *от-*, *про-*, *раз-*, *с-* and *у-* (Gjervold 2014, A-3). This number is based on the intuition of a panel of native speakers⁹ who answered the question "Should this prefix be expected to alter the semantic meaning of the verb?" for *гуглить* and 19 other colloquial verbs (Gjervold 2014, 17). Regardless of whether most other Russian speakers share the view that these eleven prefixes alter the meaning of the base verb (*гуглить*), some of these verbs are, according to both Gjervold's thesis (Gjervold 2014, A-3) and *Integrum*, not commonly used, namely *в-*, *вз-*, *вы-*, *о-*, *от-*, *раз-*, *с-* and *угуглить*. Since *Integrum* only has a reasonable number of occurrences for *загуглить*, *нагуглить*, *погуглить* and *прогуглить*, I restrict my analysis to these four verbs.

⁵ <http://ru.wiktionary.org/> and <http://en.wiktionary.org/>

⁶ <https://en.wiktionary.org/wiki/ГУГЛИТЬ> (August 5, 2019)

⁷ <https://ru.wiktionary.org/wiki/ГУГЛИТЬ> (August 5, 2019)

⁸ Earlier known as the University of Tromsø.

⁹ Interestingly, Gjervold's panel did not regard the very common verb *погуглить* as a natural perfective of *гуглить*, but rather as a "complex act perfective." "Complex act perfectives" are "verbs that describe temporally limited actions" (Janda 2007, 609), i.e. something that happens for a relatively short time.

3. Method

The meanings of each verb were studied by analysing their co-occurrences, words that are used with which each particular verb. The premise is that if two verbs have different co-occurrences, the verbs have, in one way or another, different meanings, and that by analysing the co-occurrences we can find the meaning of each verb. In this article, the co-occurrences I discuss and analyze are adverbs and direct objects in the argument structure of each verb.

3.1 Earlier research on prefix variation

The term “prefix variation” originates in Janda & Lyashevskaya (2011), and although their article is the most thorough description of the phenomenon to date, the phenomenon itself has not completely escaped the attention of other scholars. The current article is methodologically close to the articles by Viimaranta (2014 and 2017), who has studied the different meanings of the prefixed perfective verbs *испортить* ‘to spoil’ and *подпортить* ‘to spoil’ and their entire argument structure, comprising the concrete subjects, direct and indirect objects, adverbs and instruments used with *испортить* and *подпортить*. Other methods used to study prefix variation have been introspection on individual examples, for example *покрасить* and *выкрасить* ‘to paint’ in Dobrušina (1997, 136–37) and Svecinskaja (1997, 155), who explain that *покрасить* is used in the sense ‘to paint (for a while)’ whereas *выкрасить* carries the notion of ‘covering something completely in paint’. More recently, Janda and Lyashevskaya (2011, 153–4; also Janda et al. 2013, 139–62) have studied which combinations of prefixes are involved in prefix variation and concluded that some combinations are much more common than others. They claim the reason for this is that prefixes that are involved in prefix variation have similar or complementary meanings (Janda and Lyashevskaya 2011, 155), which leads to some theoretically possible prefix variations not existing at all, because the prefixes involved have opposite or at least very different meanings. The prefixes *от-* (prototypical meaning: ‘depart’) and *при-* (prototypical meaning: ‘arrive’) are an example of a theoretically possible combination that is not attested in prefix variation, because they have opposite meanings. Prefix variation with a combination of four prefixes is found for 21 (older) simplex verbs (Janda et al. 2013, 142), but the particular combination found in this article for *зуглнуть*, namely *за-/на-/по-/про-*, is not found for any other verb.¹⁰

3.2 The *Integrum* database and raw data

As the introduction notes, this article is based on data from the *Integrum* database¹¹ containing occurrences of the verbs *зазуглнуть*, *назуглнуть*, *позуглнуть* and *прозуглнуть* in all grammatical forms. The period from which the texts were taken was restricted to two years: 2016 and 2017 (1 January 2016 to 31 December 2017) to show current usage of each of these

¹⁰ According to the *Exploring Emptiness* <http://emptyprefixes.uit.no/> database, which was compiled by Janda’s et al. research group and the data of which their articles are based on.

¹¹ Homepage: <http://integrumworld.com/>

verbs. The subcorpora used in *Integrum* were mass media texts published in the Russian Federation.¹²

Although some dictionaries note *выгуглить* as a natural perfective of *гуглить*, *выгуглить* is not part of this analysis as there were so few occurrences (only two) of this verb in *Integrum* in the selected period. Without the time restriction, there are 49 occurrences of *выгуглить* in the *Integrum* database,¹³ which is nonetheless considerably fewer than any of the other analyzed verbs.

The four verbs in this study have over 100 occurrences in *Integrum* in the chosen period (2016 and 2017). The least common among them is *прогуглить*, which has 130 occurrences in total during the chosen period. Second last is *нагуглить* with 335 occurrences. Slightly more common is *загуглить* with 519 occurrences, and the by far most common verb is *погуглить* with 1823 occurrences. Due to the much larger number of *погуглить* in *Integrum* compared with all other verbs, I only selected half of them (a total of 912) for analysis to make the numbers more comparable. These numbers contain some duplicates, which is a result of some texts having been published in two or more different publications, so to make analysis and the frequency lists of the co-occurrences more adequate I removed the duplicates and obtained the following numbers: *прогуглить* 117, *нагуглить* 298, *загуглить* 438 and *погуглить* 711. These numbers (free from duplicates) are the ones used below.

4. Analysis and comments on each verb

In the following sections, I present lists of the most used co-occurrences of each verb and comment on the significance of the different co-occurrences, starting with *погуглить*.

4.1 Погуглить

Погуглить was the most common verb in this study. In the table below are the co-occurrences—adverbs and direct objects—of 711 unique (non-duplicate) occurrences of *погуглить*.

Note that all nouns in all tables below (1)–(4) are in the nominative case and the singular, regardless of how they occurred in the texts themselves. Nouns used in the plural, e.g. *отзывы* ‘opinions’, are thus found under *отзыв* ‘opinion’. In all tables, only co-occurrences found more than once are included.

Погуглить is often used with *немного* ‘a little’, which we see in example (1), and its diminutive form *немножко* ‘a little’ (2). *Немного* and *немножко* ‘a little’ are very common with *погуглить*, but not attested with any of the other verbs. This tells us that the delimitative—also called “attenuative” (Filip 2000, 5)—meaning of the prefix *no-* is present in at least some uses of *погуглить*.

¹² I chose to base my research on *Integrum* rather than, for example, the Russian National Corpus, since *Integrum* includes a large number of examples reflecting current usage. *Integrum* is therefore a good basis for the kind of research presented in this article.

¹³ January 14, 2019

Adverbs	Direct objects
<i>немного</i> 'a little' 30	<i>имя</i> 'name' 10
<i>легко</i> 'easily' 6	<i>слово</i> 'word' 9
<i>предварительно</i> 'preliminarily' 6	<i>лекарство</i> 'medicine' 5
<i>просто</i> 'simply' 3	<i>вопрос</i> 'question' 4
<i>хорошенько</i> 'well' 3	<i>информация</i> 'information' 4
<i>быстро</i> 'fast' 2	<i>отзыв</i> 'opinion' 3
<i>быстренько</i> 'fast' 2	<i>тема</i> 'theme' 3
<i>чуть-чуть</i> 'a little' 2	<i>биография</i> 'biography' 2
<i>изрядно</i> 'considerably' 2	<i>интернет</i> 'Internet' 2
<i>серьёзно</i> 'seriously' 2	<i>история</i> 'history' 2
	<i>контакт</i> 'contact' 2
	<i>кредит</i> 'credit' 2
	<i>молитва</i> 'prayer' 2
	<i>проблема</i> 'problem' 2
	<i>рейтинг</i> 'rating' 2
	<i>фамилия</i> 'surname' 2
	<i>фото</i> 'photo' 2
	<i>фраза</i> 'phrase' 2

Table 1: *погуглить*

- (1) Подписчики стали бурно обсуждать забавную историю и даже выяснили, **немного погуглив**, что по обратному адресу, указанному в послании, находится Ганноверская тюрьма. [aif.ru, 30.11.2017].
 'The subscribers began to discuss the funny history furiously and they even discovered, after having googled a bit, that the return address shown on the letter was of the Hannover prison.'
- (2) Я тут **немножко погуглил** про заменители молочного жира и нашёл несколько любопытных статей, где люди прямо чуть не с пеной у рта доказывают, что так это полезно, прям аж и молока никакого не надо! [gorodskoportal.ru, 15.03.2017]
 'At this point, I googled a bit about substitutions for butterfat and found some interesting articles in which people, virtually foaming at the mouth, prove that it's so healthy, that there's just no need for milk at all.'

Regarding direct objects, *погуглить* is often used with objects like *вопрос* 'question' (3), *слово* 'word' (4) and *имя* 'name' (5), which suggests that *погуглить* is used in the sense 'to search [for something]'. The logic behind this reasoning—that *слово* 'word' is a good indicator for the meaning 'to search'—is that googling *слово* 'word', *имя* 'name' etc. presupposes that one searches for information with the help of that word or that name, not that one is trying to find the specific word or name being googled. All verbs except *нагуглить* have *слово* 'word' as quite a common direct object (cf. tables 1, 2 and 4).

- (3) А что будет если смешать розовый с синим или нормально так разбавить его водой? (Кстати, так этот **вопрос** после поездки и не **погуглил**) [Drom.ru, 11.07.2016]
 ‘But what happens if you mix pink with blue, or is it fine to dilute it with water? (By the way, I didn’t google this question after the trip.)’
- (4) Пост с просьбой **погуглить слово** «октябрь» вышел в топ публикаций Reddit. [Lenta.ru, 29.05.2017]
 ‘A post asking to google the word “October” ended up among the top publications on Reddit.’
- (5) Когда же Медынская **погуглила имя** спутника, то не удивилась. [*Новая газета*, 11.09.2017]
 ‘So when Medynskaya googled the name of her fellow traveler, she wasn’t surprised.’

Погуглить is, however, not exclusively used in the sense ‘to search’, as can be seen in the following example.

- (6) Девушка явно успела перед собеседованием **погуглить биографию** одного из экзаменаторов. [Комсомольская правда, 03.08.2016]
 ‘The girl had obviously managed to google the biography of one of the examiners before the interview.’

The construction *успела погуглить биографию* ‘managed to google a biography’ in example (6) is more natural to interpret as ‘to find information about someone’ or ‘to search and find information about someone’ than ‘to search for someone’s biography’.

4.2 *Загуглить*

The second most common verb is *загуглить*. Table 2 shows the adverbs and direct objects of its 438 unique occurrences.

Adverbs	Direct objects
<i>просто</i> 'simply' 35	<i>имя</i> 'name' 14
<i>достаточно</i> 'enough' 8	<i>название</i> 'name' 14
<i>быстро</i> 'fast' 6	<i>информация</i> 'information' 13
<i>за минуту</i> 'in a minute' 2	<i>ответ</i> 'answer' 5
	<i>вопрос</i> 'question' 4
	<i>слово</i> 'word' 4
	<i>запрос</i> 'query' 3
	<i>номер</i> 'number' 3
	<i>термин</i> 'term' 3
	<i>дата</i> 'date' 2
	<i>история</i> 'history' 2
	<i>описание</i> 'description' 2
	<i>отзыв</i> 'opinion' 2
	<i>рецепт</i> 'recipe' 2
	<i>симптом</i> 'symptom' 2
	<i>список</i> 'list' 2
	<i>статистика</i> 'statistics' 2
	<i>текст</i> 'text' 2
	<i>фраза</i> 'phrase' 2

Table 2: *загуглить*

Загуглить seems to be the semantically broadest verb among those studied: it attracts objects that are common both in the meanings 'to search' and 'to find', unlike *нагуглить* and *погуглить*, which tend towards taking direct objects that indicate the meaning 'to search' (*погуглить*, as noted in section 4.1) or 'to find' (*нагуглить*, further discussed in section 4.3). Its most common direct objects are *имя* 'name' and *название* 'name', which are naturally used in contexts meaning 'to search'. (It is hard to imagine a situation in which one uses the phrase 'to google a name' to say 'to search for that name'.) Since *загуглить* takes both *вопрос* 'question' and *ответ* 'answer' as direct objects, we can conclude that *загуглить* is used both in the meaning 'to search' and 'to find'. For an illustration of the meaning 'to search', see example (7) and for 'to find' see (8).

- (7) Стоит только **загуглить вопрос** о малой родине, и Интернет выдает множество вариантов групп и обществ, где можно встретить своих. [Удмуртская правда (Ижевск), 27.10.2017]
'One just needs to google the question of one's native place, and the Internet will give you a multitude of various groups and societies where one can meet one's own kind.'
- (8) Учителю удобно: «Ты не можешь **загуглить** правильный **ответ**, ты его должен помнить.» [Российская газета - Центральный округ (rg.ru), 11.07.2017]
'It's convenient for the teacher: "You cannot google the right answer, you have to remember it.'"

- (9) Одни предположили, что в следующий раз минареты пририсуют к Эйфелевой башне, другие резонно предлагают редакторам телеканала **загуглить слово** «минарет», чтобы выяснить его значение. [МК (mk.ru), 18.05.2017]
 ‘Some supposed that next time minarets would be drawn on the Eiffel tower, while others reasonably suggested the editors of the TV channel google the word “minaret” to find its meaning.’

The secondary clause after *загуглить слово «минарет»* ‘to google the word “minaret”’ in example (9)—*чтобы выяснить его значение* ‘to find its meaning’—explicitly shows that the meaning of *загуглить* in this sentence is indeed ‘to search’. The prefix *за-* is furthermore the most common aspectual prefix among all borrowed verbs in modern Russian (Gjervold 2013, Olsson 2018), so it is possible to claim, along the lines of Gjervold (2013, 46) and Olsson (2018, 239), that that *за-* is the closest we get to a “default” marker of the perfective aspect in modern and colloquial Russian. In the particular case of *зуглнуть*, this supposed “defaultness” means that *загуглить* covers a larger number of meanings than the other verbs. (This analysis is developed further in section 5.2, *Why these prefixes?*)

4.3 *Нагуглить*

The third most common verb is *нагуглить*, and Table 3 shows the most common adverbs and direct objects of its 298 unique occurrences.

Adverbs	Direct objects
<i>просто</i> ‘simply’ 13	<i>ответ</i> ‘answer’ 10
<i>быстро</i> ‘fast’ 8	<i>информация</i> ‘information’ 6
<i>легко</i> ‘easily’ 7	<i>картина</i> ‘picture’ 6
<i>нельзя</i> ‘impossible’ 4	<i>решение</i> ‘solution’ 6
<i>без труда</i> ‘without effort’ 4	<i>вариант</i> ‘variant’ 4
<i>несложно</i> ‘easily’ 2	<i>способ</i> ‘manner’ 3
	<i>статья</i> ‘article’ 3
	<i>адрес</i> ‘address’ 2
	<i>диагноз</i> ‘diagnosis’ 2
	<i>документ</i> ‘document’ 2
	<i>запрос</i> ‘query’ 2
	<i>название</i> ‘name’ 2
	<i>ограничение</i> ‘limitation’ 2
	<i>предписание</i> ‘regulation’ 2
	<i>сведение</i> ‘notice’ 2
	<i>стоимость</i> ‘cost’ 2

Table 3: *нагуглить*

Unlike the other verbs, *нагуглить* is most often used with words like *ответ* ‘answer’ (10), and *решение* ‘solution’ (11), which suggests that *нагуглить* is used in the sense ‘to find’. *Нагуглить* is thus close in meaning to another verb with the prefix *на-*, *найти* ‘to find’.

- (10) Желая более точно разобраться в вопросе, я за пару минут **нагуглил** точный **ответ**, приведенный в данной статье [Habrahabr.ru, 07.11.2016]
 ‘Wishing to become more informed about the topic in a couple of minutes I googled the exact answer which is put forth in this article.’
- (11) Но в нашей команде достаточно опытных разработчиков, настоящих профессионалов своего дела, поэтому через какое-то время мы все же **нагуглили решение**. [Habrahabr.ru, 20.01.2016]
 ‘But in our team there are enough experienced developers, true professionals in what they do, and therefore we googled and found the solution after a while.’

The verb *нагуглить* can be found in constructions with *удалось* ‘succeeded’ or *не удалось* ‘did not succeed’, in the sense ‘did (not) succeed at finding’, as can be seen in examples (12) and (13). No other verb is used with this particular construction in the *Integrum* database.

- (12) Извиняюсь, вопрос наверняка глупый, я просто в этом не разбираюсь, и **нагуглить** ничего полезного о совковских проигрывателях **не удалось**. [Stereo.ru, 05.11.2017]
 ‘I’m sorry, this is probably a stupid question, but I simply don’t know anything about this, and I didn’t manage to google anything useful about Soviet record players.’
- (13) И все остальные минусы, которые мне **удалось нагуглить** – натужные попытки найти мелкие изъяны в общем-то хорошем автомобиле. [Drom.ru, 31.01.2017]
 ‘And all the other minuses which I managed to google were forced attempts to find tiny flaws in an otherwise good car.’

Even though *нагуглить* generally is used in the meaning ‘to find’, we can indeed find contexts in which ‘to search’ is a more natural interpretation, e.g. *нагуглить названия* ‘to google names’ in example (14), which presumably means ‘to type in names on Google’ (‘to search (for information with the help of the names)’).

- (14) Непонятные **названия** можно тут же **нагуглить**. [Новая Сибирь (Новосибирск), 15.07.2016]
 ‘Unintelligible names are possible to google right there and then.’

Another submeaning of the prefix *на-*, the “accumulative,” which adds the meaning of “a large quantity, measure or degree in a variety of ways” (Filip 2000, 5), is also attested with *нагуглить*, but is far from the most common meaning. This submeaning can be seen in example (15), with the direct object *огромное количество* ‘an enormous amount’.

- (15) Кому интересно (если вдруг куда-то отъезжали и история прошла мимо вас) – в интернете за два дня **нагуглите огромное количество** взаимных обвинений на эту тему. [mk.ru 15.02.2016]
 ‘For those who are interested (if you happened to be away somewhere and missed this story) – online you can google an enormous amount of mutual accusations on this topic in two days.’

4.4 Прогуглить

Прогуглить has 117 unique occurrences, and table 4 shows its most common direct objects.

Adverbs	Direct objects
(No adverbs occurred more than once with <i>прогуглить</i>)	<i>информация</i> ‘information’ 3 <i>история</i> ‘history’ 2 <i>слово</i> ‘word’ 2 <i>тема</i> ‘theme’ 2

Table 4: *прогуглить*

Прогуглить has considerably fewer occurrences in the *Integrum* database than the other verbs, but its slightly different semantics is nonetheless clearly visible in many examples. What makes *прогуглить* different from the other verbs is that it is attested with the determiners *весь* ‘the whole’ (16) and *все* ‘all’ (17) and (18), which none of the other verbs is. This harmonizes well with the prototypical meaning of the prefix *про-*, which is “movement through something” (Janda et al. 2013, 106). In this sense *прогуглить* is used to express the act of googling *everything*, or *as much as possible*, about something or someone (from the first to the last piece of information).

- (16) Я прямо за минуту до этого вопроса, когда понял, с кем интервью, **прогуглил** в интернете **всю историю** победителей порно-Оскаров. [Комсомольская правда (msk.kp.ru), 28.01.2017]
 ‘Literally a minute before that question, when I realized whom the interview was with, I googled all the history of the winners of the porn Oscars on the internet.’
- (17) Зря я что ли **все тизеры** и **спойлеры прогуглила!** [Телеканал РЕН ТВ (ren.tv), 29.09.2017]
 ‘Did I google all these teasers and spoilers in vain?!’
- (18) Конечно, и о вас уже собрали информацию, и вы наверняка **прогуглили все открытые источники** и выяснили многое о компании, нашли профили руководителей в соцсетях, оценили публичную политику на сайте и в группах. [@ASTERA, 16.06.2016]
 ‘Of course they have already gathered information about you, and you have probably googled all open sources and found out much about the company, found the bosses’ social media profiles, rated the public policy on the site and in groups.’

The adverb *внимательно* ‘attentively, carefully’ is also attested (once) with *прогуглить* (19) but not with the other verbs, which is yet another hint that *прогуглить* is used in the sense ‘to google everything about someone or something’.

- (19) Кроме того, как добавил Сбоев, у Бауинвестгрупп большой опыт по реализации проектов в других сферах – каких именно, он скромно умолчал, но представление о них можно получить, если **внимательно прогуглить** владельца общества. [*Капитал* (Пермь), 18.05.2016]
 ‘Furthermore, as Sboev added, Bauinvestgroup has much experience in implementing projects in other spheres – he was modestly silent about precisely which, but one can get a sense of them if one carefully googles the owner of the company.’

Finally, even without determiners such as *все* ‘all’ (16)–(18), or adverbs as *внимательно* ‘attentively’ (19), *прогуглить* can be used in the sense ‘to google everything (about something)’.

- (20) [М]ногие мужчины больше не осмелятся броситься в погоню в реальной жизни. Они сохраняют за собой возможность виртуального домогательства, которое позволяет женщине отфильтровать желающих, **прогуглить** заинтересовавшего ее **мужчину** и тем самым почувствовать себя защищенной, полагает журналистка. [*Superstyle.ru*, 07.12.2017]
 ‘Many men do not any longer dare to start pursuing women in real life. They retain the possibility of virtual harassment, which lets the woman filter suitors, google any man that interests her and still feel safe, the journalist thinks.’

The example in (20) states that a woman can google (*прогуглить*) a man who has caught her interest, i.e., ‘search for all relevant information (about him)’. From the context, we understand that the speaker does not merely have ‘google a little bit’ in mind, but rather ‘google thoroughly’: she wants to know as much as possible.

5. Discussion

5.1 Remarks on the direct objects

To sum up tables 1–4 above, we see that the different natural perfectives of *гуглить* ‘to google’, broadly speaking, might refer to two different situations: either to type something into the search field and press the “search” button or to find something as a result of searching. The former meaning can be named ‘to search’ (implicitly: ‘using Google’) and to the latter ‘to find’ (implicitly: ‘using Google’). Especially illuminative in this regard are the direct objects *вопрос* ‘question’ and *ответ* ‘answer’, as they refer to two different ways one can interpret the verb *гуглить* ‘to google’. In English, one can ‘google a question’ as well as ‘google an answer’, but in Russian, different verbs are used for these meanings: *вопрос* is something you *search* for the answer to, whereas *ответ* is something you (hope to) *find*.

Ответ is the most common direct object of the verb *нагузлить* (examples are presented in section 4.3), but *нагузлить* is not used with *вопрос*, which suggests that *нагузлить* indeed means ‘to find’. Another common direct object of *нагузлить* is *решение* ‘solution’, which is another indicator that *нагузлить* means ‘to find’. *Нагузлить* is thus similar in meaning to another verb with the prefix *на-*, namely *найти* ‘to find’. Among the other verbs, the meaning ‘to search’ is more common. For *погузлить*, the direct object *вопрос* was relatively commonly used. *Загузлить* had *вопрос* and *ответ* as objects in almost similar quantities, which indicates that *загузлить* can be used in both meanings: both ‘to search’ and ‘to find’. *Прозузлить* is not as common as the other verbs, and the data are smaller, but according to *Словарь языка интернета.ru* (Krongauz 2016, 33) *прогузлить* is used in the sense ‘to search’. According to the data from *Integrum*, one should also add that *прогузлить* often expresses the meaning ‘to search thoroughly’.

5.2 Why these prefixes?

The last sections showed which adverbs and direct objects are used with each verb and discussed the meanings of the verbs. The next question is what the prefixes themselves mean. According to the overlap hypothesis, the choice of aspectual prefix depends on the meaning of the verb, and since we have four different prefixes forming natural perfectives of *гузлить*, it is worth looking more closely at these prefixes and giving a short description of their meanings. Janda and Lyashevskaya (2013) have investigated the semantic types of verbs associated with certain prefixed perfective verbs in the Russian National Corpus. The five prefixes in their study are *за-*, *на-*, *по-*, *про-* and *с-*; the first four are relevant to this study.

The most common verb in this study is *погузлить*. The delimitative meaning of the prefix *по-* is mentioned by many (e.g. Filip 2000), and this meaning is clear when *погузлить* is used together with the adverb *немного* ‘a little’. *По-* is furthermore a common perfectivizing prefix (i.e., one used for forming natural perfectives) in verbs “that denote activities that necessarily have some duration, either brief as in the case of *поблагодарит* ‘say thank you’ or potentially longer, as in *поспорит* ‘have an argument’” (Janda & Lyashevskaya 2013, 233). The activity *гузлить* (if we talk about *one* instance of googling) generally has a rather short duration. The prefix *по-* thus might indicate either a short duration (“delimitative Aktionsart”) or simply the fact that the act of googling was carried out once. Janda & Lyashevskaya (2013, 233) point out that: “many [*по-*]verbs are open to an alternative delimitative reading in addition to the ‘purely aspectual’ reading of the Natural Perfectives”.

The second most common prefix, *за-*, has a broad set of meanings. It has been argued that *за-* is the ‘default’ perfectivizer in modern, colloquial Russian (Olsson 2018, 239; Gjervold 2013; Dickey & Janda 2015, 75). In Janda & Lyashevskaya (2013, 236) *за-* is associated with the following semantic tags: “Both IMPACT and CHANGEST¹⁴ are attracted to *за-*”, and it is precisely this ‘change of state’ meaning that is posited as the reason for its productivity in modern Russian. The question is whether *загузлить* expresses in some way a ‘change of state’, or if *за-* is such an ‘empty’ prefix that it can attract all sorts of verbs. If the latter is the case, *за-* adds little semantic load to the base verb *гузлить*, and, for this reason, we see a broader range of direct objects together with *загузлить*.

¹⁴ CHANGEST = “change of state or feature” (Janda & Lyashevskaya 2013, 223).

Regarding *на-*, Janda & Lyashevskaya (2013, 240) note: “The semantic profile of *на-* is somewhat more diffuse than that of the other prefixes, since it lacks the focus of having only one strongly attracted semantic class and is instead similarly attracted to both IMPACT and BEHAV¹⁵. There is a consistent focus throughout all the *на-* prefixed verbs on accumulation, either physically on a surface or more abstractly in terms of increased density or intensity.” Example (15) with *нагузлить* above noted and demonstrated “accumulation”, but regarding the verb’s other meanings, it might be easier and more fruitful to think that *на-* in *нагузлить* is formed by analogy with the verb *найти* ‘to find’.

The prototypical meaning of *про-* is ‘movement through something’. “*Pro-* is associated with movement ‘through’” (Janda & Lyashevskaya 2013, 231) and the semantic classes most often associated with *про-* are “SOUNDANDSPEECH and IMPACT” (ibid.). “Sound and speech” seem irrelevant to *гузлить*, but the ‘through’ meaning harmonizes well with the results: *прогузлить* might be the verb that differs most from the meaning of the base verb *гузлить*, since *прогузлить* often has the nuance ‘to google everything’ or ‘to google thoroughly’.

5.3 Secondary imperfectives and case variation

Before concluding, I would like to make two brief remarks: one regarding secondary imperfectives, and the other regarding variation in the case used after these verbs.

Secondary imperfectives are verbs formed from prefixed perfective verbs, normally using the suffix *-ыва-* or *-ива-*. Secondary imperfectives tend to have a slightly different meaning to unprefixed imperfectives. One can (as of 6 August 2019) find the following secondary perfectives: 18 *прогузливать*, 2 *погузливать*, 16 *нагузливать* and 18 *загузливать* in *Integrum* (subcorpora: Russian media texts). These numbers should be compared with the 40,000-plus (including duplicates) occurrences of *гузлить*. A deeper interpretation of these secondary imperfectives is, however, beyond the scope of this article, which is concerned with the semantics of the perfective verbs.

An interesting grammatical feature of the verbs in this article is that, sometimes, their direct objects are seen as a fixed phrase whose exact wording was used in the process of googling and which the speaker or writer wants to keep unaltered. In these cases, the direct objects are written in the nominative case instead of the accusative and often within quotation marks (“” or «»). Such phrases are not included in the tables in sections 4.1–4.4, which only lists direct objects in the accusative case.

(21) В итоге у представителей обоих поколений случился культурный шок.

Школьники **погузлили «Мандельштам»** и обнаружили, что это невероятно круто, а их родители вслушались в бормотание Оксимилона и изумились – да этот хулиган умеет складывать слова не хуже Осипа Эмильевича (если не передрал, конечно). [Комсомольская правда, 09.02.2016]

‘As a result, both generations experienced a culture shock. The pupils googled “Mandelstam” and discovered, that he was unbelievably cool, and their parents

¹⁵ BEHAV = “human behavior” (Janda & Lyashevskaya 2013, 223)

listened to Oxxxymiron's¹⁶ mumbling and were amazed that that hooligan could combine words not worse than Osip Emilievich (if he hasn't stolen them, of course).'

- (22) P.S Просто **загуглила**: «Сирия гуманитарная помощь». [Голос Севастополя (voicesevas.ru), 13.11.2017]

'P.S [I] simply googled: "Syria humanitarian aid."'

This phenomenon—nominative instead of accusative—is seen in examples (21) and (22), where the verbs *погуглить* and *загуглить* are followed by *Мандельштам* 'Mandelstam' and *гуманитарная помощь* 'humanitarian aid' in the nominative case instead of accusative *Мандельштама* and *гуманитарную помощь*.

6. Concluding remarks

This article has shown that the perfective verbs *погуглить*, *загуглить*, *нагуглить* and *прогуглить* have different co-occurrences in Russian media texts. Although drawing on only a small subset of Russian texts, it indicates that the verbs have different meanings, and that they focus on different aspects of the action 'to google', either 'to search for information [using Google or another search engine]' or 'to find information [using Google or another search engine]'. *Нагуглить* is used in the same meaning as *найти* 'to find'. *Загуглить* is semantically broader than the other verbs, as it is being commonly used both in the sense 'to search' and 'to find'. *Погуглить* can be used in the sense 'to google a little' and is seldom used in the sense 'to find'. The last verb, *прогуглить* can mean 'to google everything about something', a metaphorical journey from the first to last item of information that one googles, in analogy with the prototypical meaning of the prefix *про-*, 'movement through something'.

The fact that there are different nuances in meaning in each verb does not necessarily mean that the verbs differ in *all* possible uses; it is quite clear that these verbs can in many cases be used with the same direct objects (such as, for example, *имя* 'name', *информация* 'information' and *слово* 'word', all of which are commonly used with more than one verb), and the verbs are sometimes (perhaps even most of the time) interchangeable. Nor does it necessarily mean that all native Russian speakers would use the same verb in the same situations. However, the different objects and adverbs show that there are indeed differences in the shades of meaning. The fact that *нагуглить* is relatively often found with *ответ* 'answer' whereas *погуглить* is not tells us that it is more natural to use *нагуглить* when one wants to express the notion 'to find something on Google'. The fact that *немного* 'a little' is often used with *погуглить* does not mean that *погуглить* *always* means 'to google a little', but that it *can* mean 'to google a little', and that other verbs would not be as good in this situation as *погуглить*. The definitions in *Словарь языка интернета.ru* (Krongauz 2016, 32–3), according to which *по-*, *за-* and *прогуглить* mean 'to search for information on the internet', and *нагуглить* (and *выгуглить*) means 'to find information on the internet' seem mostly accurate, except that the dictionary does not mention that *загуглить* also can be used in the sense 'to find'.

¹⁶ Oxxxymiron is indeed the correct spelling of the artist.

The results in this article are relevant to understanding of the semantic differences between the different natural perfectives of *гуглить* ‘to google’, and this study can naturally not give any information about the semantics of other verbs with prefix variation. However, the results are in accordance with the overlap hypothesis: prefixes keep their meaning even in so-called ‘purely aspectual’ meanings, and verbs with different prefixes have different meanings. Corpus linguistics has its limitations, e.g., that the results might be skewed (the *Integrum* database contains mostly news sources, discussions on online forums, and no spoken language). It is also possible that not all native speakers agree on the interpretations I have given.

Russian prefix variation is a field with great potential for further research. Co-occurrence analysis is a method that can be used both by scholars investigating the semantics of closely related words and by students learning the semantics of any unfamiliar word.

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