Morphological analysis of the lexicon used in the Russian social network “Vkontakte”*

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This paper investigates the inflectional and derivational processes typical for the language used in the Russian social network “Vkontakte.” The paper provides qualitative analysis of the collected data from the above-mentioned web-site within the lexeme-based approach to morphology. The research was aimed to find the morphological processes, popular among “Vkontakte” users and to see if there are any new derivational processes, not typical for Russian. In the collected data, I single out onomatopoeia, borrowing and borrowed acronyms, semantic change, and morphological derivation that includes affixation, de-affixation, truncation, compounding, and clipped-compounding. These processes are typical for the Russian language in general and were previously described by Lopatin (1973), Cubberley (2002), Ryazanova-Clarke and Wade (1999), and Zemskaja (1992). The data include examples of non-typical for Russian derivation processes, like reduplication, blending, and metathesis. The inflectional processes follow the rules of the Russian language except for occasional use of the non-standard conjugation of verbs. Both inflectional and derivational processes are used to make the language more expressive and to emphasize certain ideas that the users share in the network.

1. Introduction

The Russian language as any other modern language has experienced a lot of changes within the last decade because of the emergence and spreading of the Internet. In Russia, the fall of the iron curtain, the opening of the borders, and the changing of the government in the early 90s allowed for the freedom of speech and thus the appearance of new words.

The appearance of the social network Facebook changed the lives of many USA citizens. The Russian programmer Pavel Durov created the web-site “Vkontakte,” which is very similar in the features and even design of its American counterpart. This site is now among the most visited web-sites in Russia; the number of its users is over 100 million and it is still growing every day. Most of them are young people of high school or college age;

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they come from different social backgrounds and from all over Russia. Even though this variant follows syntactic and morphological rules of the language, there are a lot of words of colloquial or vulgar connotation.

The research questions of this paper are:

1. What are the most productive morphological processes among the “Vkontakte” users?
2. With the growth of popularity of other foreign languages, should we expect to find new word-formation processes that are not typical for Russian?

This paper consists of six sections: Introduction, Methodology and data collection, Standard word-formation, New derivational processes, Inflectional morphology, and Conclusion.

2. Methodology and data collection

To collect data, I studied 97 open personal and 3 group pages of the “Vkontakte” web-site in the fall 2010. I read through the picture comments, wall posts, and group discussions. I was looking for words that are not included in the dictionaries or have a different context meaning that is not registered. I checked all the words that seemed to me to be neologisms, slang, or occasional words in the Ushakov’s and Efremova’s dictionaries. Ushakov’s dictionary is the most concise dictionary of the Soviet period; Efremova’s dictionary was published in 2000 but yet it does not include a lot of colloquial words. If the word was not registered in either dictionary, I looked at it as suitable for our research. ABBYY Lingo Russian-English Online Dictionary is more updated and includes the newly appeared words with register connotation. I need to point out that these words may be used outside this social network by the Russian speakers. I do not claim that “Vkontakte” users have their own slang which I am analyzing.

After I collected my data, I divided it into groups of different parts of speech. I have 135 words under analysis: 96 nouns, 2 pronouns, 11 adjectives, 15 verbs, and 11 adverbs. These words came from different

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1 Most of the studied pages belonged to the residents of the Southern Russia.
2 According to Lopatin (1972), “a large number of new words do not belong to the common usage, and they remain the words, once created in the certain context” (1972:162). These words are used for expressive purposes and most of the time they fill in the gaps in the lexicon. Usually people do not even notice when they create these words because they are formed according to the rules of the standard Russian.
derivational and inflectional processes, and I grouped them according to one of these processes.

3. Standard Word-formation

The study was done within a lexeme-based approach to derivational and inflectional morphology. Aronoff (1994) claimed that lexemes are vocabulary items that belong to the lexical categories like noun, verb, etc. Hippesley (1998) explains the distinction between inflectional and derivational morphology as “Inflectional morphology is the realization of morphosyntactic categories in that it is used in the spelling-out of the lexeme’s collection of grammatical words into word forms; derivation, on the other hand, is the realization of derivational categories and is used to spell out “lexeme formation” (1998:1094). However, space does not permit a full analysis of each item of the collected data.

The words in the collected data are formed according to the morphological and morphophonemic rules of the Russian language. I single out the following word-formation processes: onomatopoeia, borrowing and borrowed acronyms, semantic change, and morphological derivation that includes affixation, truncation, compounding, and clipped-compounding. All these processes were previously described by Lopatin (1973), Cubberley (2002), Zemskaia (1992), Ryazanova-Clarke and Wade (1999). The main word-formation process is affixation (65), and especially, expressive affixation (39 out of 65), followed by truncation (22), compounding processes (11), borrowings (19), onomatopoeia (4), and semantic shift (4). Affixation is the most productive word-formation process in the Russian language (Cubberley (2002), Zemskaia (1992)), and it is not surprising that the collected data reflect the same.

3.1. Onomatopoeia

(1) Nikakix buldyx-ov
   'No plop’ – PL., GEN.CASE
   ‘No plops’

The onomatopoeic word buldyx (plop, the sound of water splash) was used here as a noun and was declined according to Class I declension.³

³ Based on the noun classification by Cubberley (2002).
Here, the occasional verb was formed by both onomatopoeia and affixation processes. The suffix –ka-, which is typically used to form verbs from the onomatopoeic sounds (Cubberley 2002), is attached to the sound of disgust fu (‘ugh’), then this verb attaches the prefix ot- that has intensive meaning (Cubberley 2002). Thus, the meaning of the occasional verb otfukat’ is ‘to produce intensively the sound of disgust.’

3.2. Borrowing

With the growth of technology and the influence of the English language, Russian has borrowed a lot of new words. These words are used in the same form they were borrowed (example 3) or they attach a Russian suffix to produce new words (example 4).

(3) spešl – special (ADJ.)

The English adjective word was used by the user as an adverb that substitutes the Russian adverb special’no in the phrase zavedu emoalbom spešl dlja Helen – “I’ll start an emo album special for Helen.”

(4) lav-k-i – ‘love’ (NOUN, PL.)

Because the Russian word for ‘love’ is feminine, the user attached suffix –k- that is typically used to form female forms of the base (Cubberley, 2002) and plural marker -i to the borrowed base lav- to form a word that means ‘love’ in plural form. The same word exists in Russian but it means ‘benches.’

Also, “Vkontakte” users use borrowed acronyms like MMS (‘Multimedia Messaging Service’) as it is, or transliterate them into Russian letters like IMXO (‘In My Humble Opinion’), which is pronounced as one word unlike English where every letter is spelled out. The word simka was borrowed as SIM (‘Subscriber Identity Module’) and attached feminine suffix –k- because the original term is SIM-karta (‘SIM-card’) is of feminine gender.

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4 It was used as a comment to the picture to express user’s emotions.
5 I thank the anonymous reviewer for pointing it out.
3.3. Semantic change

The verb *zalivatʼ* in standard Russian means ‘to flood’; in colloquial Russian, it can mean ‘to lie’ or ‘to upload’ when it refers to the web-site. The verb *podsestʼ* means ‘to take a seat next to somebody’ in standard Russian. In colloquial Russian, it means ‘to become addicted to something.’

3.4. Affixation

This process is the most productive in the collected data as well as in standard Russian. Most of occasional words, expressive items, and slang words of different parts of speech (nouns, adjectives, adverbs, and verbs) were formed with the use of various prefixes and suffixes. According to Lopatin (1972), prefixes usually change the meaning of the word but do not change its inflectional properties. Prefixes attach to the verbs more frequently than to the nouns and adjectives, and my data provide support for this statement (prefixes were attached to 6 verbs and only to one noun). Lopatin argues that suffixes most often change the grammatical category of the word, and like prefixes, they also can change the shades of meaning, like expressive suffixes, but most of them derive completely new words. Suffixes can attach to different parts of speech but most frequently they attach to nouns and adjectives (Lopatin 1972). I also came across several examples of mixed word formation when both prefix and suffix were used to derive a new word (e.g. *de-anonimi-zacija* – literally ‘deanonymisation’).

3.4.1. Nouns

The suffixes –*axa*, –*jaxa*, and –*uxa* are marked as stylistically low and informal. They are used in the words *vkusn-jaxa* (‘something very tasty’) and *pričes-uxa* (‘hair-style’). When they attach these suffixes, the users make the original stems more informal: *vkusn-aja* (‘tasty,’ adj.) and *pričes-at’* (‘to comb,’ v.).

One of the meanings of the suffix –*k*- is to serve as a feminine gender marker. For example, the word *džigit* does not have a female counterpart because it refers to a man who lives typically in the Caucasus and who is a skilful horseman and warrior. The user wanted to call *džigit* a girl, so she used this suffix to form a female name – *džigit-k-a.*
The prefix *de-* together with the noun suffix –*izacija* was very productive in post-Soviet Union period when a lot of institutions were dismantled (Ryazanova-Clarke & Wade 1999). With the help of the analogy, the user creates a word

(5) *De-anonym-izacija*

Prefix of removal – anonym – NOUN SUFFIX

‘The process of becoming not anonymous’

### 3.4.1. Expressive affixes

The language used in the “Vkontakte” social network is notable by the high amount of expressive suffixes – a tendency typical for modern colloquial Russian. I follow Hippisley (1996) in distinguishing diminutive, augmentative, affectionate, and pejorative meanings of suffixes. These suffixes were analyzed by Hippisley within Network Morphology which followed the lexeme-based approach to morphology, and thus is relative to the collected data and analysis. According to Hippisley (1996), Russian words are formed with the help of the following expressive suffixes:

<table>
<thead>
<tr>
<th>Function</th>
<th>Class I</th>
<th>Class IV</th>
<th>Classes II + III</th>
</tr>
</thead>
<tbody>
<tr>
<td>Diminutive</td>
<td>-<em>ik</em></td>
<td>-<em>#č</em></td>
<td>-<em>#k</em></td>
</tr>
<tr>
<td>Augmentative</td>
<td>-<em>išč</em></td>
<td>-<em>išč</em></td>
<td>-<em>išč</em></td>
</tr>
<tr>
<td>Affectionate</td>
<td>-<em>čik</em></td>
<td>-<em>oč#č</em></td>
<td>-<em>oč#k</em></td>
</tr>
</tbody>
</table>

*Table 1. Correspondence of declensional class and expressive stem (p.204)*

#### 3.4.1.1. Diminutive suffixes

(6) *podnos-ik* (Class I)

Tray-* DIM.SUFFIX

‘Little tray’

(7) *Griv- k- i* (Class II)

Mane-*DIM.SUFFIX-PL*

Little manes’

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6 As no examples of pejorative suffixes were found in the collected data, they were not included in the table. I thank the anonymous reviewer for pointing out that one of my examples was not, in fact, formed with the help of the pejorative suffix.
3.4.1.2. Augmentative suffixes

(8) Krasot-

iš-

a

(Class II)
Beauty – AUG.SUFFIX – FEMALE MARKER
‘Beauty’

(9) Um-

iš-

a

(Class II)
Intellect – AUG.SUFFIX – FEMALE MARKER
‘Intellect’

3.4.1.3. Affectionate suffixes

(10) Prazdni-

ček

(Class I)
Holiday- AFF.SUFFIX
‘Holiday’

(11) Milaš-

ečk-

a

(Class II)
Cute girl – AFF.SUFFIX – FEMALE MARKER
‘Cutie’

3.4.2. Adjectives

The adjectives are also formed with the help of expressive suffixes from other adjectives. For example, the word ledjan-juč-aja derives from the adjective ledjan-aja (‘ice-cold’ – female marker) with the help of the augmentative suffix –juč-. The allomorph of the same suffix –uš- is used to form the adjective krasiv-uš-ie from the word krasiv-ye (‘beautiful’-plural marker).

3.4.3. Adverbs

All adverbs in my data are derived from adjectives with the help of the suffix –o or –i. The adverbs can be derived from the adjectives that do not exist in Standard Russian, but they are potential words. For example, the adverb živopisn-en’k-o, which derived from the potential adjective živopisn-en’k-ij, has an affectionate suffix –en’k- attached to the base živopisn-yj (‘picturesque’). The same pattern can be observed in the next two examples:

(12) Operativn-en’k-o < operativn-yj + -en’k- (‘prompt’)

23
(13) *Stil’n-en ’k-o < stil’n-yyj + -en’k-* (‘stylish’)

The following adverbs, *oxren-enn-o* and *ofig-enn-o*, derived from the adjectives which already exist in the colloquial Russian *oxren-enn-yj* and *ofig-enn-yj*. Both mean ‘awesome, outstanding’ but *oxren-enn-yj* belongs to the vulgar register while *ofig-enn-yj* belongs to the low colloquial. The suffix *-enn* here has an augmentative meaning. Users who use these words are full of emotions and want to add as much expressivity as possible to their speech.

3.4.4. Verbs

The verbs in the collected data are derived from other verbs, nouns, and onomatopoeic sounds with the help of prefixes, suffixes, and postfixes (relative –sja). Usually the verbs form the perfective counterpart of the existent imperfective verb.

Both verbs *u-blju-sti* and *u-rža-t’-sja* are derived from perfective forms of the existent imperfective verbs *blju-sti* and *rža-t’* with the help of the prefix *u*- which has different meanings in two verbs, both meanings were described by Cubberley (Cubberley 2002). The verb *bljusti* (‘to guard’) already has its perfective equivalent in Standard Russian – *sobljusti*. The user derives this new verb with the prefix *u*- that has a resultative meaning in this context:

(14) Žalko mne specslužby. Poprobuj *u-blju-sti*
    Pity to me special agencies. Try to guard
    ‘I feel sorry for the special agencies. Try to guard [everybody]’

The verb *ob-amerika-n-i-l-a-s’* which is an inflected form of *ob-amerika-n-i-t’-sja* derived from the noun *Amerika* (‘America’), the prefix *ob*- has a cumulative meaning (Cubberley 2002), and the postfix (or reflexive suffix) –sja. The combined meaning of this occasional word is ‘to acquire the traits typical of American people.’

(15) *ob-amerika- n- i t’- sja*
    CUMULATIVE PREFIX – America – RELATIVE SUF. - RELATIVE SUF. - INFINITIVAL SUF. – POSTFIX
    ‘to acquire the traits typical of American people’

The interesting fact about the occasional word *feja-č-i-t’* is that it derived from the noun *feja* (‘fairy’) with the help of the suffix –č, which is typical for verb derivation from adjectives according to Cubberley (2002). The
verb *ryb-a-č-i-t’* (‘to go fishing’) that belongs to standard Russian also derived from a noun *ryb-a* (‘fish’) with the help of the same suffix. We argue that the suffix –č- means to produce the action of the base. Thus, the verb means ‘to produce actions typical for a fairy’:

(16) *feja-č-i-t’*
- fairy – ACTION SUFFIX – RELATIVE SUFFIX – INFINITIVAL SUFFIX
- ‘to produce actions typical for a fairy’

A verb can derive from an onomatopoeic sound. For example, a slang verb *xrumkat’* (‘to crunch’) has a sound *xrum* as a base, which attaches the suffix –ka-, which means “to produce the sound of the base” (Cubberley 2002):

(17) *xrum-ka-t’*
- Crunching sound – “sound-producing” SUFFIX – INFINITIVAL SUFFIX
- ‘to produce the crunching sound’

3.5. De-affixation

According to Cubberley (2002), “Russian sources tend to use the notion of de-affixation to account for the absence of a suffix in derived forms (mostly nouns, some adjectives, no verbs)” (2002:267). The words in my data are all nouns and they derived from either verbs or adjectives. In the words that derived from adjectives, the final hard consonant becomes soft:

(18) *Žest’* < *žestokij* (‘cruel’, ADJ.)

In Standard Russian, the noun *žestokost’* that derived from the same adjective with the help of the suffix –ost’ means ‘cruelty’ while *žest’* means ‘tin (plate).’ The last word in Russian slang is close in meaning to the interjection of surprise after having seen or noticed something cruel.

(19) *Krut’* < *krutoj* (‘cool’, ADJ.)

Similar to the previous example, the final consonant is softened and the meaning of this word is close to the interjection of delight after having seen something beautiful or exciting. Both these examples are used in comments to pictures, and they are never a part of any full sentence.

When a noun is formed from a verb, the last two suffixes are dropped, and the stress falls on the last syllable of the newly derived word:
(20) Razvod < razvodit’ (slang, ‘to deceive somebody’)

(21) Komment < kommentit’ - truncated form of the verb kommentirovat’ (‘to comment’)

3.6. Truncation

Truncated forms are typical for the colloquial speech in general (Ryazanova-Claire & Wade 1999). They become even more popular in the written language of “Vkontakte” users because it saves them time to type their ideas. Most of them consist of one syllable:

(22) Komp < kompjuter (‘computer,’ N.)
(23) Tja < tebya (‘you,’ PRON., SG, ACC.CASE)
(24) Lju < ljubblju (‘love,’ V., 1ST, SG.)
(25) Oč < očen’ (‘very,’ ADV.)
(26) Ksta < kstati (‘by the way,’ ADV.)

some words have two syllables:

(27) Admin < administrator (‘administrator,’ N.)
(28) Fota/fotka < fotorafija (‘photo,’ N.)
(29) Ava < avatar (‘avatar,’ ‘profile picture,’ N.)
(30) Vyxi < vyxodnye (‘weekend,’ N.)
(31) Sfotat’ < sfotografirovat’ (‘to take a picture,’ V.)

and I have several examples of truncated words that have three syllables:

(32) univer < universitet (‘university,’ N.)
(33) peredož < peredozirovka (‘overdose,’ N.)
(34) pozitiv < pozitivnost’ (‘positivity,’ N.)

There is only one word in our data that was truncated from both sides:

(35) Pasib < spasibo (‘thank you’)

Thus, any part of speech can be truncated. Most of the words in the collected data are related to Internet technologies (‘inet,’ ‘ava,’ ‘progat’, etc.) or serve for expressive purposes (‘krasava,’ ‘nra,’ ‘lju,’ etc.).
3.7. Compounding

Lopatin (1972) argues that compounded words play a very important role in Russian word-formation. It is a very productive derivational process among the neologisms because of the tendency to express a notion of the whole phrase by a single word. While compound words are similar to a phrase, they are different in that they form an independent word that consists of two bases and only the second one is declined (1972). According to Cubberley (2002), “only nouns and adjectives can be compounded” (2002:269). This statement is reflected in my data; I came across two types of compounding: direct joining and linked joining.

In direct joining, two bases are joined together by writing with or without a hyphen. For example, the occasional word maečka-vyručaečka is formed as an analogy to paločka-vyručaločka (‘magic wand’). The first word maečka derives from majka (‘t-shirt’) with the help of the affectionate suffix –ečk-. The second word vyručaečka derives from the verb vyručat’ (‘to help,’ ‘to rescue’). As in paločka-vyručaločka both words rhyme, so the user derives vyručaečka as a rhyme to the word maečka.

There are a number of words that use linked joining to derive new compounds. The choice of the linking infix (–o- or –e-) depends on the final consonant of the first base. The infix –o- becomes –e- after soft or palatal consonants (Cubberley 2002).

\[
\text{(36) } \text{Sonn- } o- \text{ opuxš-a } \text{ aja krasota} \\
\text{Sleepy – INFIX – swollen – NOM., FEM., SG. beauty} \\
\text{‘beauty [beautiful face] that is swollen from sleeping’}
\]

The adjective svežeženjašja consists of the adjective svež-ij (‘fresh, new’) and the verb žen-iti’sja (‘to marry’) and the suffix of the present participle –jaš-. Thus, the meaning of this new compound is ‘newly-getting-married.’

3.8. Clipped-compounding

The Russian colloquial speech contains a lot of clipped-compounds that end in the suffix -ka. According to Lopatin (1972), “they [clipped-compounds] present short, unofficial names for the notions that are expressed in the official speech by the adjective-noun phrase” (1972:44). These clipped compounds are also called “univerbs,” and they use a shortened form of an adjective to serve as a base for the noun (Lopatin 1972). For example, the word electron-ka derives from the phrase
elektronnaja počta (‘email’) and the word lič-ka derives from ličnye soobšenija (‘personal messages’ or ‘inbox’).

4. New derivational processes

I discovered that my data also include the examples of reduplication (3), blending (1), and metathesis (1) – the processes that were not previously described as typical for the Russian language. These findings may serve as a proof that other languages have an influence on the Russian word-formation.

4.1. Reduplication

To intensify the meaning, the users reduplicate the base in their statements. The examples of the reduplication that I have are verbs and adverbs. They do not change the category of the word but just emphasize the idea:

(37) Klassno-klassno, adv. (‘great-great’)

(38) Očen’-očen’, adv. (‘very-very’)

4.2. Blending

The word mužno is an example of blending: it is a combination of možno (‘it is allowed’) and nužno (‘it is necessary’). Thus, this word means two things at the same time: something is both allowed and necessary.

4.3. Metathesis

The only example of metathesis I have in the collected data is the noun pedivikija. It originates from the word vikipedija (‘Wikipedia’), the name of the famous online encyclopedia where everybody can write and edit the articles. Pedivikija was created as a mockery word for this project; in this word, the third and the fourth syllables are moved to the beginning so that word sounds similar to the other one that starts with the same root, like pederast (‘a gay person,’ offensive). People who do not consider Wikipedia to be a valuable source of information tend to use the word pedivikija instead which might show their negative attitude towards this web-site.
5. Inflectional morphology

The language used by the “Vkontakte” users follows the rules of Standard Russian. The nouns, pronouns, and adjectives are typically changed according to their class and number declension patterns. However, I came across several examples of verb conjugation that is different from the standard one. These instances involve the postfix –sja/-s′ and non-observance of the moprphoponological alternations.

The postfix (or reflective suffix) has two variants in the Russian language. Its choice depends on the final sound of the stem: if it is a vowel, the postfix –s′ is attached; if it is a consonant, the postfix –sja is attached. These forms are typical for colloquial and children’s speech. To make their language more expressive, the “Vkontakte” users choose the non-standard affixes:

(39) Poterjala-sja (instead of poterjala-s′) ja.
    ‘I’m lost’

Sometimes, the users omit this affix completely:

(40) skoro potus-ju (instead of potusu-ju-s′)
    ‘Soon I will hang out’

The palatal alternation is typical for Russian verbs due to the Proto-Slavonic palatalization processes that affected velars, labials, and dentals (Cubberley, 2002). In the verbs gord-it′-sja (‘to be proud of’) and hot-et′ (‘to want’), we expect d~ž and t~č alternations respectively. Instead of standard conjugation, the users prefer to use the same stem. These variants can be found in low-colloquial speech and in children’s talk when they are acquiring Russian:

(41) Gord-ju-s′ instead of gorž-u-s′ (‘I’m proud’)

(42) Xot-ju instead of xoč-ju (‘I want’)

All other parts of speech, including borrowings and their derivatives as well as occasional words are declined or conjugated according to the rules of Standard Russian; they also agree with their heads in the phrases:

(43) Net deneg na inet-e
    No money on internet – NOUN, CLASS I, SING., PREP.CASE
    ‘There is no money on the Internet account’
If I want, I can do fairy stuff.

5. Conclusion

The current analysis of the “Vkontakte” social network showed that the language used by its users consists of all parts of speech like Standard Russian. The collected data is compatible in the analysis of the lexeme-based approach to morphology. The derivational analysis showed the presence of the following derivational processes: onomatopoeia, borrowing and borrowed acronyms, semantic change, and morphological derivation that includes affixation, de-affixation, truncation, compounding, and clipped-compounding. These processes are typical for the Standard Russian language, and the numbers suggest that affixation (and especially, expressive affixation) is the most productive derivational process among the “Vkontakte” users. However, I also argue that the data have the unique examples of reduplication, blending, and metathesis – the processes that were not previously described as typical for the Russian language.

The inflectional analysis proved that all types of speech are changed according to the morphological and morphophonemic rules of Standard Russian morphology, except for several instances where non-standard form is used to create comic effect or to sound like children’s speech. All the examples in the collected data were used by users mainly for expressive purposes and for the creation of the special atmosphere in the online reality.

As the number of new words which appeared the Russian language has grown considerably in the last decade, I believe that the popularity of “Vkontakte” web-site is one more source for them to originate and be used by Russian speakers.

REFERENCES


