Searching for competing patterns in morphological derivation:  
The case of adjective borrowing  
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Since the early days of Indo-European language studies, the occurrence has been noticed of rival forms of adjectives which have the same base or root and differ from one another only by their derivational affix. However, competing variants of borrowed adjectives in language typology have received scant attention. This research presents a preliminary cross-linguistic study on the search for competing patterns which are characteristic of loan adjective formations in the Baltic, Slavic, and Germanic languages. In order to find out if the adjective doublets in reality are synonymous, dictionary data have been compared with collocational adjective-noun corpus data of four languages.

**Keywords:** competition, collocation, correlative borrowing, derivative, hybrid derivative, loan adjective formation, competing pattern, simplex borrowing, suffix.

“You shall know a word by the company it keeps!”
(Firth 1957: 11)

1. Subject, aim, data

This research focuses on loan adjective formations and adjective borrowings in the Baltic, Slavic, and Germanic languages. Certain pairs of adjectives were chosen for two reasons: first, they have attracted by far the greatest attention among lexicographers, publishers, grammarians, language teachers and linguists; second, their conclusions on the chosen adjective pairs are rarely based on corpora data. It is also significant to note that 5942 collocations\(^1\) have been selected from the corpora of four languages. Numbers in Figure 1 denote how many collocations have been selected from the following sources:

\(^1\) Repeated collocations are not included in the number.
This paper aims at finding out the possible competing patterns which are characteristic of loan adjective derivation and adjective borrowing in general in Lithuanian, Latvian, Russian, and English. Presenting a preliminary open exploration, the paper relies both on the main dictionaries of the investigated languages (they are enumerated in the list of references) as well as on the materials taken from the following corpora

- Lithuanian (DLKT)
- Latvian (LVK2013; Saeima-2.0)
- Russian (NKRJa)
- English (BYU-BNC)

The article is structured as follows. Section 2 summarises previous studies on the competing variants of borrowed adjectives and briefly introduces terminology employed in the paper. Section 3 is concerned with the analysis of competing patterns of borrowed adjectives in Lithuanian, Latvian, Russian, and English; it is divided into subsections that focus mostly on the collocational behaviour of the rival words in the corpora. Section 4 puts forward the interpretation of the results before the final conclusions of the study are presented.

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2 It is worth noting that all the corpora are annotated, with the exception of DLKT and Saeima-2.0. These corpora comprise different number of words. DLKT (2011) encompasses about 140 million words, therefore, it is by far the largest corpus of the Lithuanian language. A substantial part of this corpus comprises the General Press, namely texts both from regional and national newspapers, the Popular Press as well as the Special Press, i.e. specialised newspapers and magazines. The remainder of it is composed of fiction, memoirs, scientific and popular literature, and various official texts. The corpus Saeima-2.0 encompasses more than 22 million words. As regards the LVK2013 (2007-2013), it is the smallest one among the above-mentioned corpora with roughly 4.5 million words. It has been compiled from printed and electronic materials created after 1990. The most significant part of the corpus is comprised of the mass media, while the rest of it incorporates fiction, scientific and other texts, normative acts, etc. NKRJa (2006-2008) is made up of over 300 million words. It contains not only authentic prose, illustrating standard Russian, but also translated works, poetry and texts, representing the non-standard forms of contemporary Russian, namely spoken (recordings of oral speech, spontaneous and public) and dialectal. Finally, the BYU-BNC (1980s–1993) is a 100-million-word corpus composed of written and spoken language. The written part embraces extracts from regional and national newspapers, specialist periodicals and journals, academic books and popular fiction, published and unpublished letters, as well as memoranda, school and university essays. The spoken part encompasses orthographic transcriptions of unscripted informal conversations and spoken language collected in various contexts (e.g. business or government meetings).
2. Introduction

2.1. Previous investigations into competing variants of borrowed adjectives

The competing variants of borrowed adjectives in Lithuanian and Latvian have been mentioned in passing. The instances of synonymy between adjectival suffixes in contemporary Lithuanian have been analysed by Vaskelienė and Kučinskienė (2012) on the basis of data taken from DŽe3 as well as being briefly discussed by Knūkšta (1976). In Latvian, the competing variants of adjectival suffixes are briefly reviewed in the latest academy grammar (Nītiņa, Grigorjevs 2013: 264–267). In Russian and English, more has been done in this field in comparison to Lithuanian and Latvian. In Russian, the competition between paronyms, i.e. words that are alike in form, but different in meaning and usage, has been analysed. As a result, more than four Russian dictionaries of paronyms have been compiled (cf. Kolesnikov 1971, Vishnjakova 1984, Bel’chikov, Panjucheva 1994, Kolesnikov 1995). The authors of these dictionaries focused on the phenomenon of paronymy. Even though they attempted to illustrate the difference between confusingly similar words in Russian, questions concerning the criteria of distinguishing such pairs of words still arise. In English, Hawkes (1976), Marsden (1985), Ross (1998), Gries (2001, 2003), and Kaunisto (1999, 2001, 2007) examined the rivalry between adjectives ending in -i-c/-ical. The latter author (2008) also investigated adjective pairs in -ive/-ory.

It seems that, besides the rivalry of adjectives with different suffixes, very little attention has been paid to the existence of other competing patterns of borrowed adjectives.

2.2. Terminology

Before proceeding, a brief introduction to the terminology used in the paper is provided here. Simplex borrowings are perceived as morphologically unanalysable words that consist of one free stem morpheme which is not further divisible into meaningful component pieces, e.g.:

(1) Lith trivial-ūs, -i, Latv triviāl-s, -a ‘trivial’ (indirectly from Lat trivialis)
    Lith privat-ūs, -i, Latv privāt-s, -a ‘private’ (indirectly from Lat privatus)
    Eng tranquil (from Latin tranquillus), simple (from French simple ← Lat simplus³)

The loan-formations, mostly neoclassical ones, that are found in English, German, French, Spanish, Italian and other languages are called correlative borrowings (cf. Urbutis 2009: 293; cf. Marchand’s [1969: 218f.] correlative derivation). They form the largest part of the so-called internationalisms of the Lithuanian language (cf. Keinys 2005, Drotvinas 2002, Gaivenis 2002). Correlative borrowings are related to borrowings containing the same root. The language user feels the relation between them, similarly as one feels the relation between the derived and the base word. More specifically, correlative borrowings are both formally and semantically motivated, e.g.:

(2) Lith form-al-ūs, -i ‘formal’ (cf. fòrm-a ‘form’) ← indirectly from Lat formalis

³ Etymologies of words are checked, as a rule, in an online etymology dictionary http://www.etymonline.com/ (Last accessed Apr. 2016).
Latv form-āl-s, -a ‘formal’ (cf. form-a ‘form’) ← indirectly from Lat formalis
Eng form-al (cf. form) ← Old French formal and Lat formalis

Hybrid derivatives are words formed from a stem belonging to the donor language by applying to it a suffix or prefix belonging to the recipient language (3) and vice versa (4) (cf. Fowler 2009: 241); the second pattern is, as a rule, particularly rare. Even though the borrowed stems or affixes are integrated into the recipient language, the language user still feels that the word consists of partly borrowed and partly native material, e.g.:

(3) borrowed stem + indigenous suffix (a) or prefix (b)
   a) Lith ŭkis-icn-ųįį, -ą ‘yellow’ (the suffix is of Latic origin) ← ŭkis- ‘yellow’
   Latv sker-isk-s, -a ‘yellow’ (the suffix is of Slavic origin) ← sker- ‘yellow’
   Eng grace-ful ← grace (from Old French grace ← Lat gratia)
   Rus цикл-ичн-ый, -ая, -ое ‘cyclic’ ← цикл ‘cycle’ (from Late Lat cyclus ← Greek kyklos)

   b) Lith ne-legal-ųs, -i ‘illegal’ ← legal-ųs, -i ‘legal’ (indirectly from Lat legalis)
   Latv ne-legal-ļ-s, -a ‘illegal’ ← legal-ļ-s, -a ‘legal’ (indirectly from Lat legalis)
   Eng un-natural ← natural (from Old French naturel ← Lat naturalis)
   Rus не-легальный, -ая, -ое ‘illegal’ ← легальный, -ая, -ое ‘legal’ (from Lat legalis)

(4) indigenous stem + borrowed suffix (a) or prefix (b)
   a) Lith dial. smēl-iav-as, -a ‘sandy’ (the suffix is of Slavic origin) ← smēl-is ‘sand’
   Latv dial. balt-enkij-s, -a5 ‘as white as snow’ (the suffix is of Russian origin) balt-s, -a ‘white’
   Eng talk-ative (the suffix is of Latin origin) ← talk, lov(e)-able (the suffix is of French origin) ← love
   Rus colloq. чит-абель-ый, -ая, -ое6 ‘readable’ (the suffix -абель- is of French origin ← Lat -abīlis) ← читать ‘to read’

   b) Lith anti-karin-is, -ę ‘antiwar’ ← karin-is, -ę ‘military’
   Eng anti-war ← war
   Rus анти-военн-ый, -ая, -ое ‘anti-war’ ← военн-ый, -ая, -ое ‘war [adj.]’ (the prefix anti- is of Greek origin)

As far as suffixes are concerned, they can be simplex and complex. Simplex suffixes are usually monosyllabic (e.g. Lith -in-(is, -ė), Eng -ic), whereas complex suffixes (e.g. Lith -yv-in-(is, -ė), Rus -ище-ск-(ий, -ая, -ое). Eng -ic-al are made of combinations of simplex ones.

Finally, the term collocation was coined by Firth to refer to the common co-occurrence of two or more words (cf. Crystal 2008, 86–87).

4 Lithuanian, Latvian, and Russian suffixes are given together with the endings of the nominative case of adjectives.
5 Personal information of Dr. Anna Stażecka from University of Latvia.
6 Personal information of Dr. Anna Daugavet from Sankt Petersburg State University.
3. Competing patterns of borrowed adjectives in Lithuanian, Latvian, Russian, and English

In the analysed languages, three rival patterns of borrowed adjectives could be distinguished on the basis of competition between:

1. derivatives with different suffixes
2. simplex or correlative and suffixed adjectives
3. derivatives with simplex and complex suffixes

3.1. Competition between derivatives with different suffixes: the first pattern

This pattern is typical of Lithuanian, Latvian, Russian, and English. Consider the three productive Lithuanian suffixes which belong to derivational categories of relational (-inis, -e) and qualitative (-ingas, -a and -iškas, -a) adjectives and are used in Lithuanian hybrid derivatives (cf. Keinys 1999: 75f., Stundžia 2016: 309f.). In this case one adjective root can take three different suffixes which implicate different derivational meanings of the derived words. However, cases of synonymy among suffixes belonging both to the same and different derivational categories still occur. In Lithuanian, Latvian, Russian, and English dictionaries, competition between the two suffixed adjectival derivatives can be observed, cf. e.g.:

(5) Lith -išk-as, -al-ing-as, -a (a); -in-is, -ēl-išk-as, -a (b)
   (a) r̄hm-išk-as / r̄hm-ing-as (kvėpavimas, širdies plakimas) ‘rhythmic(al) breathing, heartbeat’
   (b) r̄hm-in-ē / r̄hm-išk-a (linija, figūra) ‘rhythmic(al) line, form’ (LKŽe2)

(6) Latv -isk-s, -al-/īg-s, -a
   (a) person-isk-ā / person-īg-ā (lieta, piezīme) ‘the personal effect, remark’
   (b) cilvēc-isk-s / cilvēc-īg-s ‘human; humane’ (LLVV)

(7) Rus -н-ый, -ая, -ое / -ов-ый, -ая, -ое (a); -н-ый, -ая, -ое / -е)ск-ий, -ая, -ое (b)
   (a) антрацит-н-ый, -ая, -ое / антрацит-ов-ый, -ая, -ое ‘anthracitic’
   (b) щуг-н-ый, -ая, -ое / щуг-е)ск-ий, -ая, -ое ‘cynical’ (TSRJa)

(8) Eng -ive/-ory
   declarative / declarat-ory (CED)

According to LKŽe2 and DŽe3, r̄hm-išk-as, -a and r̄hm-ing-as, -a are defined as 1) ‘having regularly repeating patterns’ and 2) ‘regular, harmonious recurrence of elements’. The semantics of the first pair of adjectives in (5a) is the same. However, r̄hm-ing-as, -a has a third additional meaning ‘continuous, uninterrupted’. In DŽe3, r̄hm-in-is, -ē (5b) has only one meaning ‘consecutive, periodic repetition (movement, sound, accord)’, whereas in LKŽe2 it contains two: 1) ‘having rhythm’ and 2) ‘sth. that is made according to some rhythm, sound’. The first meaning of the said adjective is almost the same as in the case of r̄hm-išk-as, -a and
The rival pair in (5b) also has identical meanings, thus, it is not easy to tell the difference between the two derivatives with different suffixes.

In LLVV, it is indicated that person-іg-s, -а and person-isk-s, -а could be synonymous in their three meanings: 1) ‘belonging to a person’; 2) ‘related to a person individually’; 3) ‘having relation with a concrete person’. Cilvēc-isk-s and cilvēc-іg-s can also be used synonymously with the meanings ‘human’ and ‘humane’. However, only the combinations of the adjectives person-іg-s, -а and person-isk-s, -а with nouns, showing the synonymy, are given in this dictionary (cf. 6a).

In the Russian online dictionary, the adjective pair in (7a) is considered to be synonymous. Yet, in the dictionary of paronyms, антрацит-н-ый, -ая, -ое and антрацит-ов-ый, -ая, -ое bear different meanings (Vishnjakova 1984: 27). The former means ‘characteristic of anthracite’, the latter ‘containing or using anthracite’. According to TSRJa, цинич-екс-ий, -ая, -ое and цинич-н-ый, -ая, -ое (7b) are synonymous in their meanings. In the dictionary of paronyms (Vishnjakova 1984: 177), the former adjective has two meanings. As regards the first meaning, it refers to cynicism, namely the philosophical teaching of cynical people, whereas the second meaning ‘showing cynicism’ is obsolete. The latter adjective is defined as ‘shameless, unethical, showing nihilistic attitude to human culture and generally accepted moral rules’.

In the CED, the first pair of words (8a) is synonymous only in the first meaning, namely ‘making or having the nature of a declaration’. Declarat-ory has one more meaning common in the language of law, cf. ‘(of a statute) stating the existing law on a particular subject; explanatory’, ‘(of a decree or judgment) stating the rights of the parties without specifying the action to be taken’.

In order to find out how the competing pairs of adjectives are synonymous, we have conducted a fairly rough quantitative analysis of their collocational behaviour in the corpora of four languages. We have chosen the most typical examples of simple or correlative adjectives, as well as the most productive suffixes of derivatives.

3.1.1. Corpus of Contemporary Lithuanian Language

In Lithuanian, an exceptionally productive suffix -іn-is, -е is used to make relational adjectives (cf. DLKG 2005: 210, LG2 1997: 82, Keinys 1999: 75) with the meaning ‘made from’ or ‘pertaining to’ the base noun; this is why words with this affix are increasingly common in Lithuanian terminology. Productive suffixes -іng-as, -а and -іsk-as, -а are used in the formation of qualitative adjectives. Adjectives formed with these two suffixes are generally derived from nouns. It is significant to point out that the former suffix denotes the possession of qualities usually in abundance, e.g.: gal-іng-as, -а ‘powerful’ ← gal-іa ‘power’, іsmint-іng-as, -а ‘wise’ ← іsmint-іs ‘wisdom’, whereas the latter suffix denotes similarity of a thing signified by the base noun. However, similarity can be external (a) or internal (b), e.g.: (a) grižd-іsk-as stаlаs ‘cumbersome table’ ← grižd-as ‘lumber’, šmekl-іsk-as vaіdzas ‘ghostlike view’ ← šmekl-a ‘ghost’, (b) draug-іsk-as žmogus ‘friendly man’ ← draug-іs-as, -е ‘friend’, vaіk-іsk-as elgesіs ‘childlike behaviour’ ← vaіk-as ‘child’ (cf. Keinys 1999: 75f.). However, nominal collocations8 with these suffixed derivatives show that adjectives with different suffixes can be used synonymously with deverbal action and

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8 For more on the conception of collocation and phraseology, see Marcinkevičienė (2010).

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resultative nouns (a) and also with simplex indigenous and borrowed inanimate nouns (b), cf. e.g.:

(9) \textit{ritm-in-is, -ę} (189 collocations$^9$ in total) / \textit{ritm-išk, -a} (133 collocations in total) ‘rhythmic(al)’ (30 coinciding collocations)

(10) \textit{ritm-in-is, -ę} / \textit{ritm-ing-as, -a} (118 collocations in total) ‘rhythmic(al)’ (24 coinciding collocations)

(11) \textit{ritm-ing-as, -a} / \textit{ritm-išk-as, -a} ‘rhythmic(al)’ (30 coinciding collocations)

(12) \textit{ritm-in-is, -ę} / \textit{ritm-ing-as, -a} / \textit{ritm-išk-as, -a} ‘rhythmic(al)’ (13 coinciding collocations)

The above-mentioned examples in (9-12) clearly illustrate that the two or even three rival adjectives can go together with the same action, resultative or simplex nouns. Adjectives also enter into different collocations both with action or resultative nouns (a) and with simplex and correlative nouns (b), cf. e.g.:

(13) \textit{ritm-in-is, -ę} (718$^{10}$) ‘rhythmic(al)’

(14) \textit{ritm-ing-as, -a} (246) ‘rhythmic(al)’

$^9$ Only adjective-noun collocations have been extracted from DLKT.
$^{10}$ The numbers indicated in brackets show the token frequency, i.e. the number of times a word form occurs in a corpus.
a) āima 'moan', bendradarbiāvīmas 'collaboration', dārbas 'work', īstrauka 'extract', gvyēnimas 'life', finansāvīmas 'sponsorship', griaustīnis 'thunder', kalbēsenā 'speech', knarkīmas 'snore', laikas 'time', ūsīmas 'play', etc.
b) dvasī 'spirit', eilēs 'verse', etc.

(15) ritm-išk-as, -a (215) ‘rhythmic(al)’
a) atgīnīmas 'rebirth', īssidēstymas 'arrangement', (klimato) kaitā 'climate change', verķsmas 'cry', šurmūlīs 'uproar', etc.
b) konvulsijos 'convulsions', māršas 'march', siužētas 'plot', spektāklis 'performance', rātas 'cycle', tachikārdīja 'tachycardia', etc.

Examples (9-11) illustrate that adjectives (ritm-in-is, -ē, ritm-ing-as, -a and ritm-išk-as, -a) belonging to distinct categories can co-occur with the same simplex indigenous and borrowed inanimate nouns, as well as with derivatives denoting action and result. Meanwhile, examples in (13-15) show the co-occurrence of adjectives with different nouns. In this case one can notice a slight difference in the collocational behaviour of the analysed adjectives, i.e. ritm-in-is, -ē shows preference to collocations with simplex nouns, while ritm-ing-as, -a to action or resultative nouns, and ritm-išk-as, -a seems to be the most flexible in terms of collocational behaviour.\(^{11}\)

3.1.2. Corpus of Modern Latvian
In Latvian, two productive derivational suffixes, i.e. -isk-s, -a and -īg-s, -a, corresponding to three above-mentioned Lithuanian suffixes, enter into genuine competition with each other. Hybrid adjectives derived by means of these suffixes can be used synonymously, mostly both with action or resultative nouns (a) and simplex or correlative borrowed nouns (b) and sometimes with quality nouns as well (c), cf. e.g.:

(16) person-isk-s, -a (444 collocations with 119 different nouns) / person-īg-s, -a (237 collocations with 120 different nouns) ‘personal’ (336 coinciding collocations include 37 different nouns)
c) drošība ‘safety’, īpašība ‘quality’, labums ‘good’, etc.

In LVK2013, the token frequency of person-isk-s, -a is higher (444) in comparison to person-īg-s (237). These two adjectives more often collocate with different nouns, particularly with simplex or correlative borrowed ones (a) and also with derivatives denoting action or result (b), cf. e.g.:

(17) person-isk-s, -a

\(^{11}\) Adjectives ending in -inis, -ē are considered to be particularly productive in Lithuanian (cf. DLKG 2005: 210, LG\(^{2}\) 1997: 82). It is not surprising, therefore, that in DLKT the hybrid derivative ritm-in-is, -ē has the largest number of tokens in comparison to ritm-išk-as, -a and ritm-ing-as, -a.
b) darbs ‘work’, piemērs ‘example’, piedališanās ‘participation’, stāstījums ‘story’, uzskats ‘opinion’, etc.

(19) In the corpus, the adjectives цинич-н-ый, -ая, -ое цинич-екск-ий, -ая, -ое ‘cynical’ have about 100 common collocations:


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12 Adverb-verb collocations as well as derived nouns are included in this number, which shows the token frequency of a word. However, they are not investigated in this paper. The search in the NKRJa was done in the following way. The stems цинич* and циничекск* were written in the search tool. Both derived nouns (e.g. циничность ‘cynicism’) and adverb-verb (e.g. цинично отвечает ‘answers in a cynical way’) collocations were extracted from the corpus.
3.1.4. British National Corpus
3.1.4.1. On the rivalry between -ive and -ory

Kaunisto (2008: 74) correctly notices that in present-day English words ending in -ive or -ory\(^{13}\) are not very widespread; yet, competition between the two word formational patterns might be observed.

The first pair of words analysed here is declarat-ive (35) and declarat-ory (16). As the numbers indicate, the token frequency of these two words in the corpus is relatively low. At first sight, the two words look synonymous due to similar adjective-noun collocations which can be determined, cf. e.g.:

\[
\text{(22) declarat-ive (14 collocations in total) / declarat-ory (12 collocations in total) doctrine, form, statements (3 coinciding collocations)}
\]

Garner (2003) also observes that these adjectives have synonymous meanings, namely ‘serving to declare’. However, declarat-ory has produced a number of fixed expressions in legal English (cf. declaratory act, declaratory action, declaratory decree, declaratory judgement, declaratory statute, declaratory theory\(^{14}\)), meanwhile declarat-ive is frequently used in grammar (declarative statement, sentence, sentence types, verb forms) (cf. Kaunisto 2008: 82). As Garner (2003) points out, the word declamat-ory is sometimes confused with declarat-ory. The former has the meaning ‘empty and bombastic’.

In the BYU-BNC, the token frequency of investigat-ive (286) is much higher in comparison to investigat-ory (42). Both adjectives bear the same meaning, namely they relate to investigating something, cf. e.g.:

\[
\text{(23) investigat-ive (109 collocations in total) / investigat-ory (29 collocations in total) abilities, agency, body, journalist, procedure, process, research, role, stage, style, task, visit, work, etc. (16 coinciding collocations)}
\]

However, these adjectives also collocate with different nouns:

\[
\text{(24) investigat-ive branch, newspaper, outsiders, knowledge, practice, session, stories, strategy, studies, techniques, units, workloads, etc.}
\]

\[
\text{(25) investigat-ory authorities, component, fees, frolics, function, orders, policy, response, stance, tools, etc.}
\]

Both words modify official entities such as agency / authorities / body / powers (cf. Kaunisto 2008: 84). Garner (2003: 465) proposes the idea that there is no point in having two synonymous words. “We might be well advised to throw out investigatory and stick with investigative, or to develop some DIFFERENTIATION”. However, in the BYU-BNC, adjectives ending in -ory have produced a number of fixed expressions, especially in relation to journalism (e.g. investigatory journalism, journalistic skills, trade journalists, journalist, newspaper, reporting, reporter, tabloid, television programme, writer) and medicine

\(^{13}\) Nouns ending in -ive and -ory are not investigated in this paper.


The last pair of words is stimulat-ive and stimulat-ory. In the CED, both adjectives are given as synonyms, whereas the OALD does not contain the mentioned forms. The latter dictionary, gives only stimulat-ing which is used in the meaning ‘inspiring’ and ‘making you feel more active and healthy’. According to the CED, stimulat-ive and stimulat-ory derive from the verb stimulate which has 3 meanings: 1) ‘to fill (a person) with ideas or enthusiasm’; 2) ‘to excite (a nerve, organ, etc.) with a stimulus’; 3) ‘to encourage (something) to start or progress further’. However, neither adjective is mentioned as synonymous with the word stimulat-ing. Cf. adjective collocates in the BYU-BNC:

(26) stimulat-ing (756) / stimulat-ive (4) / stimulat-ory (48)

In the corpus, the token frequency of stimulat-ive is very low. However, it has been noticed that in specialised dictionaries this word is the preferred form in the language of finance:

(28) stimulat-ive fiscal policy, grants, middle-income tax cut, deficit, action, monetary / financial policy, financial conditions

In fact, in the future, this term might prevail only in the domain of finance. Stimulat-ory in comparison to stimulat-ive has a larger number of instances in the BYU-BNC. It seems that the former is more favoured when referring to medicine or biology:

(29) stimulat-ory action, autocrine cycle, conditions, impulses, laxatives, organs, receptors, response, signals

As a result, the differentiation between stimulat-ive and stimulat-ory lies in their established uses and not in meaning.

Finally, but no less significantly, the adjective stimulat-ing might be characterized by the highest frequency of occurrence. This adjective is used in various contexts:

(30) stimulat-ing analysis, approach, atmosphere, debate, job, classes, music, overview, pattern, lecture, seminar, textbook, time, tour, tutorials, workshop, etc.

3.2. Competition between simplex or correlative and suffixed adjectives: the second pattern

15 The numbers in brackets show the token frequency of a word.
16 Verb-noun collocations (e.g. stimulating imagination / the economy / the youngsters) are included in this number, however, they are not analysed.
17 The last four words starting with deficit are taken from financial glossaries as well as the Oxford Dictionary of Law (Last accessed Jan. 2016).
The second pattern is observed only in two analysed languages, i.e. Lithuanian and Latvian. It is significant to point out that it seems to be very rare in Latvian and not found in Russian, while the situation in English can only be ascertained through further research\(^{18}\), cf. e.g.:

(31) Lith (a) lokal-ūs, -i / lokāl-in-is, -ē ‘local’
(b) preliminar-ūs, -i / preliminār-in-is, -ē ‘tentative’ (DŽ\(^{e3}\), LKŽ\(^{e2}\))

(32) Latv (a) morāls, -a / morāl-isk-s, -a ‘moral’
(b) militārs, -a / militār-isk-s, -a ‘military’ (LLVV)

As far as Lithuanian dictionaries are concerned, in DŽ\(^{e3}\), adjectives lokal-ūs, -i and lokāl-in-is, -ē (31a) are given as total synonyms, namely both words are described as ‘connected with a particular place, boundaries; local’. In LKŽ\(^{e2}\), the adjective lokal-ūs, -i is not included, however, lokāl-in-is, -ē is defined as ‘connected with a particular place’. In DŽ\(^{e3}\), preliminar-ūs, -i means ‘tentative’, and preliminār-in-is is defined using definite form of the same adjective, namely ‘preliminarusis’. In spite of that the meanings are identical. In LKŽ\(^{e2}\), both adjectives in (31b) are given as synonyms too.

As regards Latvian (32), LLVV describes morāls, -a as an adjective having three meanings: 1) ‘connected with morality’; 2) ‘corresponding to norms of morality’; 3) ‘connected with the spiritual life of a human being’. As the adjective morāl-isk-s, -a is concerned, it is viewed as being synonymous with the simplex one in meanings 1 and 2. The simplex militārs, -a and the suffixed derivative militār-isk-s, -a ‘military’ are given as total synonyms in LLVV. In both cases the dictionary shows a clear preference for the simplex form.

3.2.1. Corpus of Modern Lithuanian

In Lithuanian, simplex adjectives compete with hybrid suffixed adjectives ending in -inis, -i\(^{19}\). Nominal collocations include both simplex nouns (a) and derivatives denoting action, quality and place (b), cf. e.g.:

(33) lokal-ūs, -i (238 collocations in total) / lokāl-in-is, -ē (288 collocations in total) ‘local’
(77 coinciding collocations)

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\(^{18}\) As regards English, at first, initially our aim was to distinguish the second rival pattern here. Two adjectives were selected from the BYU-BNC, namely formal and formal-istic. We found only 6 coinciding collocations with both adjectives. However, in order to state that they are synonymous, wider contexts need to be investigated (cf. more examples dual / dual-istic, global / global-istic).

\(^{19}\) This suffix is so productive that it can be attached to all parts of speech, namely nouns (berž-in-is, -ē ‘birchen’ ← bērž-as ‘birch’), adjectives (bendr-in-is, -ē ‘common’ ← bendr-as, -ā ‘general, common’), numerals (pirm-in-is, -ē ‘primary’ ← pirm-as, -ā ‘first’), verbs (pirkt-in-is, -ē ‘shop-bought’ ← pirkt-as, -ā ‘bought’), adverbs (aplūk-in-is, -ē ‘surrounding’ ← aplūk ‘around’), and prepositional constructions (po-kar-in-is, -ē ‘postwar’ ← po ‘after’ + kār-as ‘war’). This suffix can also be added to compounds (ilga-mēt-in-is, -ē vs. ilga-mēt-is, -ē ‘long-lived ← ilg-as, -ā ‘long’ + mē-tai ‘year’). It seems that in DŽ there are no compounds having the suffix -inis, -ē with the exception of words like dvylik-in-is, -ē ‘twelve years old’, aštuniolik-in-is, -ē ‘eighteen years old’, devyniolik-in-is, -ē ‘nineteen years old’. In LKŽ, compounds with the suffix -inis, -ē are also very rare and might come from Old Lithuanian texts.

The meanings of both adjectives in DŽ and TŽŽ are considered to be synonymous. Both adjectives refer to ‘a local or certain place’. Despite the same meaning, the adjectives in DLKT frequently collocate both with simplex or correlative nouns (a) and derivatives mostly denoting action (b), cf. e.g.:

(34)  lokal-ûs, -i ‘local’ (568)

(35)  lokûl-in-is, -è ‘local’ (716)

Even though collocations are different, it seems that at least in some cases lokal-ûs, -i could also occur with the nouns lokûl-in-is, -è collocates with.

The second competing pattern is highly characteristic of Lithuanian as comparatively a large number of such rival pairs exists, cf. more examples, e.g.:

(36)  global-ûs, -i / globûlûnûs / globûliûkas mâstûmas ‘global thinking’. The token frequency of globalûs, -i is 1237, globûlinûs, -é – 1687 and globûliûkas, -a – only 18. Other competing adjective forms can also be used synonymously, however, the token frequency of some in the DLKT differs considerably from that of globalûs, -i and its derivatives. The word dualûs, -i occurs 82 times, duûlinûs, -è 36; fatûlûs, -i 18, fatûlinûs, -é 21, fatûlûkas, -a 467. These adjective pairs have no discernible differences in meaning.

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20 The numbers in brackets denote the token frequency of a word.
21 In DŽ, the two adjectives are synonymous.
22 Shorter and longer forms of compounds can also compete with each other, cf. e.g.: daugiamîlijûnûs, -é vs. daugiamiliûnûs, -é ‘multimillion’. It is possible that the former compound can later change the longer one daugiamiliûnûs, -é, which is now favoured by the Lithuanian dictionaries (DŽ, LKŽ). Such a change is possible due to similar hybrid adjectives such as vienà-ciliûnûs, -é ‘one-cylinder’ (DŽ, LKŽ), instead of vienà-ciliûndûnûs, -é, and smulkia-struktûrûs, -é ‘exhibiting complex/elaborate structure’ (LKŽ), instead of smulkia-struktûrûnûs, -é, which already exist in the aforesaid dictionaries. The Lithuanian language standardisers, as a rule, prefer shorter forms of borrowed adjectives (cf. Paulauskienë 2000: 118ff; for more see 3.3.1).
3.2.2. Corpus of Modern Latvian

As far as LVK2013 is concerned, simplex or correlative adjectives dominate or even are the only ones representing the said competing pattern, e.g.:

(37)  morāls, -a (140 collocations) / morāl-isk-s, -a (1 collocation) ‘moral’ apsvērums ‘consideration’ (only 1 coinciding collocation)

(38)  militārs, -a (331 collocation) / militār-isk-s, -a (no collocations at all) ‘military’

As regards morāl-isk-s, -a, LLVV gives collocations with action or resultative nouns morāl-isk-s viedoklis ‘moral view’, pagrīmums ‘moral decline’, and more collocations of the same type can be found in Saeima-2.0, e.g. morāliskā attīrīšanās ‘moral purification’, morāliskā atmošanās ‘moral awakening’, morālisko apstākli [acc. sg.] ‘moral circumstance’, morālisko apspriėšanu [acc. sg.] ‘moral discussion’, etc. In the case of militār-isk-s, -a only LLVV gives one collocation ar militārisku sveicienu ‘with military greeting’.

In rare cases LVK2013 has collocations exclusively with the suffixed adjective, e.g. ident-isk-s, -a ‘identic(al)’ (44 collocations), whereas a simplex adjective bearing the same root and, as a rule, the same meaning, can be found in LLVV (ident-s, -a: identas parādības [nom.pl.] ‘identic(al) phenomena’) and Saeima-2.0, e.g. identi jēdziens [nom.pl.] ‘identic(al) ideas’)24. The preliminary analysis of the provided facts shows the ongoing processes of competition between simplex borrowed and suffixed hybrid adjectives in Latvian. It seems that simplex forms are used more frequently than suffixed ones, which in many cases may be a manifestation of the latest tendency in the development of spoken Latvian.

3.3. Competition between derivatives with simplex and complex suffixes: the third pattern

The third pattern is common in Lithuanian, Russian, and English, however, no occurrences have been found in Latvian, cf. e.g.:

(39)  Lith -in-is, -ē/-atin-is, -ē (a); -in-is, -ē/-yvin-is, -ē (b)
     (a) tēm-in-is, -ē / tem-ātin-is, -ē ‘thematic(al)’
     (b) dedūkc-in-is, -ē (DŽ23) / dedukt-īvinis, -ē (LKŽ24) ‘deduction’

(40)  Rus -ск-ий, -ая, -ое/-ищеск-ий, -ая, -ое (a); -й-ый, -ая, -ое/-абель-ый, -ая, -ое (b)
     (a) героий-ск-ий, -ая, -ое / геро-ищеск-ий, -ая, -ое ‘heroic’
     (b) комфорт-н-ый, -ая, -ое / комфорт-абель-ый, -ая, -ое ‘comfortable’ (TSRJa)

(41)  Eng -ic/-icalc
     (a) pedagog-ic / pedagog-ical (OALD)
     (b) metaphor-ic / metaphor-ical (CALD)

In LKŽ23, the first pair of adjectives (39a) is described differently. Tēm-in-is, -ē has two meanings: 1) ‘connected with a theme or themes, dedicated to some theme’ and 2) ‘consisting

23 Collocations with simplex nouns are also possible, cf. morāliska problēma ‘moral problem’.
24 A preliminary list of possible Latvian examples of the second pattern has been kindly presented by Prof. Dr. Andra Kalnača from University of Latvia.
of themes’. The second meaning is more common in linguistics, e.g. when talking about dictionaries. *Tem-ątin-is, -ę* also carries two meanings: 1) ‘including the entirety of themes, related with the topic’ and 2) ‘a vowel that ends a stem’. The second meaning is more specific, i.e. as a term, it is used mainly in the linguistic field. The adjectives in (39b) are also given as synonyms by different dictionaries of Lithuanian (*TŽŽ*, *DŽ*).

The two adjectives in (40a) seem semantically similar. As regards the latter one, it has got three meanings: 1) ‘characteristic of a hero, brave’; 2) ‘requiring a lot of effort’; 3) ‘narrating deeds of heroes’. According to the dictionary, the first meaning of *ɝɟɪɨɣ-ɫɤ-ɢɣ, -ɚɹ, -ɨɟ* is identical. Thus, it follows that the two lexical items are total synonyms as they are mutually interchangeable with one meaning.

According to Russian dictionaries, *ɤɨɦɮɨɪɬ-ɧ-ɵɣ, -ɚɹ, -ɨɟ* / *ɤɨɦɮɨɪɬ-ɭɛɟɥɶɧ-ɵɣ, -ɚɹ, -ɨɟ* are not synonymous. The former is used with abstract nouns, whereas the latter one is used with concrete nouns. It has to be noted that in the NKRJa, the third competing pattern is the dominant one.

In the OALD, both *pedagog-*ic and *pedagog-*ical (41a) are included under the same entry. In the CALD, *metaphor-*ic and *metaphor-*ical (41b) are recorded within the same entry too.

In Lithuanian, the formants *-at-, -yu- are taken from donor languages as elements of correlative borrowings, cf. e.g.:

(42) Lith *tem-ątik-a* ‘thematics’, *dedukt-yv-ūs, -i* ‘deductive’
Cf. Rus *mem-amuk-a, deduktm-yv-ūy, -a, -ye*
Cf. Eng *them-atic* (← Greek *themat-ik-os*), *deduct-ive* (← Lat *deduct-iv-us*)

Similarly, in Russian, the formants *-uc- (-ik-*) and *-abel- are taken from donor languages, cf. e.g.:

(43) Cf. Fr *héro-ique* ← Lat *hero-ic-us*
Cf. Fr *confort-able* ← Late Lat *confort-abil-is*

### 3.3.1. Corpus of Modern Lithuanian

The examples below illustrate how in Lithuanian the adjective root can take a simplex and complex suffixes in collocations, both with simplex or correlative (a) and derived (b) nouns, cf. e.g.:

(44) *tém-in-is, -ę* (96 collocations in total) / *tem-ąt-in-is, -ę* (267 collocations in total) ‘themat(ic)’ (37 coinciding collocations)

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However, the two adjectives can also collocate both with simplex or correlative (a) and derived (b) nouns:

(45) tēm-in-is, -ē (1084) ‘themat(ic)’

(46) tem-āt-in-is, -ē (188) ‘themat(ic)’

Even though collocations are different, in many cases tem-āt-in-is, -ē could also occur with the nouns that tēm-in-is, -ē collocates with.

In Lithuanian, it is common and promoted by linguists that adjectives with foreign suffixes or stem-final syllables such as -al-, -ar-, -er-, -ij-, -ik-, -y-, -er- and others should not be used before the suffix -inis, -ē (cf. Paulauskiene 2000: 118f.). These elements are found in other languages such as Russian, English, and in some cases also Latvian, e.g.:

(47) region-in-is, -ē, cf. Eng region-al, Rus регион-альный, -ая, -ое, Latv region-āl-s, -a (cf. Late Latin region-al-is)
   teor-in-is, -ē, cf. Eng theor-etic, Rus теорет-ический, -ая, -ое, Latv teor-ētisk-s, -a (cf. Late Latin theor-ic-us)
   statist-in-is, -ē, cf. Eng statistic-al, Rus статист-ический, -ая, -ое, but – Latv statist-isk-s, -a (cf. Modern Latin statist-ic-um)
   ilūz-in-is, -ē, cf. Eng ilus-ory, Rus иллюз-орный, -ая, -ое, Latv iluzor-s, -al iluzor-isk-s, -a (cf. Late Latin illus-ory-us)

Many derivatives containing the above-mentioned foreign elements are considered to be incorrect in standard Lithuanian, e.g. region-āl-in-is, -ē, problēm-āt-in-is, -ē, problēm-āt-isk-as, -a, teor-ēt-in-is, -ē, statist-ik-in-is, -ē. However, in some suffixed derivatives the foreign elements -ij-, -ik- and others are vitally important, and they cannot be omitted due to the ambiguity of the adjective, cf. e.g.:

(48) kolonij-in-is, -ē ‘colonial’ ← kolonij-a ‘colony’ vs. kolon-in-is, -ē ‘columnar’ ← kolon-ā ‘column’

28 These numbers show token frequency of adjectives in DLKT.
linij-ìn-is, -ě 'linear' ← linij-a 'line' vs. lin-ìn-is, -ě ‘made of flax’ ← lin-as ‘flax’

The first pair (48) of adjectives relates to the meaning of ‘a country under control of another country’ and ‘architectural style’, meanwhile the second pair (49) of adjectives acquires the meaning of ‘linear’ and ‘made of flax’ (DŽ³⁵)²⁹. As far as the element -ik- is concerned, it cannot be omitted in the derived word fizik-in-is ‘related to physics’ because the adjective fiz-in-is ‘physical’ also exists. The former has the base word fizik-a ‘physics’, whereas the latter consists of a bound stem, indigenous suffix and an inflection. Furthermore, the meaning of both adjectives is also different: fizikinis pertains to ‘the science of physics’ and fizinis pertains to ‘the body or nature’ (DŽ³⁵).

3.3.2. Russian National Corpus

The third competing pattern of adjectives is a productive phenomenon of Russian word-formation. It has been noticed in the corpus that the body or nature formation. It has been noticed in the corpus that the body or nature formation. It has been noticed in the corpus that the body or nature formation. It has been noticed in the corpus that the body or nature formation. It has been noticed in the corpus that the body or nature formation. It has been noticed in the corpus that the body or nature formation. It has been noticed in the corpus that the body or nature formation. It has been noticed in the corpus that the body or nature formation. It has been noticed in the corpus that the body or nature formation. It has been noticed in the corpus that the body or nature formation. It has been noticed in the corpus that the body or nature formation. It has been noticed in the corpus that the body or nature formation. It has been noticed in the corpus that the body or nature formation. It has been noticed in the corpus that the body or nature formation. It has been noticed in the corpus that the body or nature formation. It has been noticed in the corpus that the body or nature formation. It has been noticed in the corpus that the body or nature formatio

The large number of common adjective-noun collocations in NKRJa revealed that the two adjectives are synonymous not only in their first, but also in their second and third meaning³⁰, i.e. герой-ск-ий, -ая, -ое and геро-ичек-ий, -ая, -ое collocate with concrete, animate nouns (quite often indicating groups of people) such as армия ‘army’, боец ‘fighter’, дивизия ‘division’, жена ‘wife’, защитник ‘defender’, мама ‘mother’, отец ‘father’, отряд ‘troop’, племя ‘tribe’, фаланга ‘phalanx’, человек ‘person’. However, collocations with abstract, inanimate nouns dominate entirely, cf. the examples below:


The three meanings of геро-ичек-ий, -ая, -ое are listed above.

³¹ Adverb-verb collocations are included in this number that shows the token frequency of a word. However, they are not investigated in this paper. The search in the NKRJa was done in the following way: the stems героїйко* и геро-ичек* were written in the search tool. Both adjective-noun and adverb-verb (e.g. героїйко погиб ‘died in a heroic way’) collocations were extracted from the corpus.

³⁰ The three meanings of геро-ичек-ий, -ая, -ое are listed above.
³¹ Adverb-verb collocations are included in this number that shows the token frequency of a word. However, they are not investigated in this paper. The search in the NKRJa was done in the following way: the stems героїйко* and геро-ичек* were written in the search tool. Both adjective-noun and adverb-verb (e.g. героїйко погиб ‘died in a heroic way’) collocations were extracted from the corpus.

Next pair of rival adjectives is комфорт-ный, -ая, -ое and комфорт-абельный, -ая, -ое, cf. e.g.:


It should be noted, however, that the said adjectives frequently collocate with different nouns, cf. e.g.:  


According to a dictionary of paronyms, комфорт-ный, -ая, -ое is used with abstract nouns, whereas комфорт-абельный, -ая, -ое is used with concrete ones. However, the NKRJa illustrates that these adjectives can be used both with abstract and concrete nouns. Despite комфорт-абельный, -ая, -ое collocating with several abstract nouns, in most cases it is used with concrete ones, whereas комфорт-ный, -ая, -ое tends to collocate with nouns with a concrete meaning. Such an explanation is somewhat unhelpful since it does not allow for a principled differentiation between the two adjectival forms.

3.3.3. British National Corpus
As far as adjectives ending in -ic and -ical are concerned (e.g. comic / comical, economic / economical, politic / political, pedagogic / pedagogical), traditionally it is believed that adjectives with the suffix -ical derive from adjectives with the suffix -ic. Marchand (1969: 242) also puts forward a similar idea that “formations in -ical are secondary derivatives, i.e. they are derived from adjectives in -ic by means of -al”. He attempts to explain the difference between -ic and -ical forms by stating that the meaning of -ic adjectives is more directly connected to the idea expressed by the root than the meaning of -ical adjectives. A similar explanation was offered by Hawkes (1976: 95): “the adjective in -ic, derived from the root substantive, has a semantically more direct connection with that root idea; the adjective

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32 Adverb-verb collocations (e.g. комфортно жилось ‘it was comfortable to live’; было комфортабельно ‘it was comfortable’) are included in this number that shows token frequency of a word. However, they are not analysed in this paper.


34 Boldface is used in the original by the author.
in -ical, a derivative of itself from an adjective form, has a looser connection with the root idea and often takes on a correspondingly looser meaning”. Ross (1998: 42) is of the same opinion that adjectives ending in -ic are more specific, meanwhile adjectives ending in -ical are more general.

3.3.3.1. On the rivalry between -ic and -ical

The adjectives pedagog-ic and pedagog-ical are often treated as synonyms. According to the OALD, both adjectives mean ‘concerning teaching methods’. Pedagog-ical does not have a separate entry in the dictionary and is mentioned under the entry pedagog-ic. 21 coinciding collocations prove that the rivalry between the adjectives still has not resulted in a clear preference for either of the forms, cf. e.g.:

(56) pedagog-ic (79 collocations in total) / pedagog-ical (58 collocations in total) activity, aim, applications, approaches, concern, foundations, function(s), implications, method, principles, responsibilities, skills, style, theory, tradition, value, etc.

It needs to be noted, however, that in the BYU-BNC the words pedagog-ic and pedagog-ical occur with roughly equal frequencies, with no apparent pattern governing the choice between the two. The former occurs 133 times, while the latter 124 times. The very fact that the adjectives are used in the field of education probably also explains why variation between the two forms still exists. However, there are more cases when competing adjectives collocate with different nouns, cf. e.g.:

(57) pedagog-ic accountability, advantage, autonomy, cause, chances, concept, dependency, fashion, material, research, technique, thinking, tone, trade, validity, version, etc.

(58) pedagog-ical aspirations, assumption, benefit, intentions, linguistics, needs, orientation, perspectives, potential, preference, relationship, tasks, term, tool, work, etc.

Even though collocations are different it seems that pedagog-ic could also occur with the nouns pedagog-ical collocates with. For instance, pedagogic preference, technique, thinking collocate well too.

One more pair of competing adjectives is bibliograph-ic and bibliography-ical. In the BYU-BNC, the rivalry between these two adjectives has resulted in a clear preference for the form in -ic, cf. bibliograph-ic (20335) vs. bibliography-ical (130). Even though the latter has a lower frequency of occurrence, it should be borne in mind that both adjectives still have not undergone differentiation, cf. e.g.:

(59) bibliograph-ic (64 collocations in total) / bibliographic-ical (62 collocations in total) aids, checking, collection, control, description, details, essay, knowledge, reference, resource(s), search, sources, surveys, tools, etc. (20 coinciding collocations)

However, both adjectives are rather frequently used with different nouns:

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35 The numbers indicated in brackets show the token frequency of a word.
bibliograph-ic applications, display, education, entity, material, method, notes, packages, schemes, services, subjects, system, etc.

bibliographic-ical addendum, aspects, books, tools, competence, complications, consultants, detective, division, machines, search, support, terminology, etc.

Looking at the collocates of both adjectives, it seems that they are synonymous with the meanings ‘connected with a list of books about a particular subject or by a particular author, or to the list of books that have been used by somebody writing an article, etc.’ and ‘connected with the study of the history of books and their production’ (OALD). Pairs of competing words differ from one another only by their derivational affix.

Metaphor-ic and metaphor-ical in comparison to bibliograph-ic / bibliography-ical have also entered into genuine lexical competition with each other. According to the CALD, the adjective metaphor-ical is used in two meanings: ‘metaphorical language containing metaphors’ and ‘not having real existence but representing some truth about a situation or other subject’. Neither this dictionary, nor the OALD highlights the major differences between these adjectives. As regards the forms metaphor-ic and metaphor-ical in the BYU-BNC, it seems that both words can be used in a broadly similar fashion. The different frequency of occurrence of the two adjectives (token frequency of metaphor-ic 72 and metaphor-ical 191) in the BYU-BNC does not suggest any drastic signs of differentiation between the two forms, cf. e.g.:

metaphor-ic (45 collocations in total) / metaphor-ical (113 collocations in total)
expression(s), function, juxtaposition, language, mapping, models, nature, relationship, sense, strategy, terms, etc. (13 coinciding collocations)

However, competing adjectives can often go together with different nouns, cf. e.g.:

metaphor-ic aspects, combination, components, construction, domains, focus, form, innovation, interaction, proliferation, relation, relevance, reversability, technique, tool, verb, etc.

metaphor-ical act, allusion, borderlines, character, experience, phrase, possibilities, potential, power, transition, tree, value, variety, walls, ways, weight, word, etc.

It is worth mentioning that both adjectives are used in a number of fixed expressions especially common in cognitive linguistics: metaphor-ic(al) language / mapping; metaphor-ic aspects; metaphorical utterance, etc. It seems that Lakoff and Johnson, as well as many of their followers, expressed preference for the form metaphorical. Their seminal book Metaphors We Live By (2003) includes 295 instances of metaphorical and only 12 instances of metaphor-ic.

4. Discussion of the results
There are several things to note about the results of the study. Investigating the occurrence of competing variants of adjectives in the dictionaries as well as in the corpora, we have noticed three types of rival patterns of borrowed and hybrid adjectives in Lithuanian, Latvian, Russian, and English.

All three rival patterns of borrowed and hybrid adjectives are typical of Lithuanian. As the collocations mostly with simplex inanimate and action or resultative nouns show, Lith ritm-in-is, -ē / ritm-ing-as, -a / ritm-išk-as, -a (cf. ex. 9-12) can be used synonymously in spite of the fact that the suffix -inis, -ē belongs to a relational category of adjectives and -ingas, -a, -iškas, -a belong to a qualitative category of adjectives. Such a case illustrates that sometimes the boundaries between the suffixes belonging to distinct categories of adjectives are not clear-cut. As the competing adjective variants belonging to the second and third rival pattern are concerned, there is a clear tendency to choose shorter forms of adjectives or adjectives with simplex suffixes, especially in standard Lithuanian. It is likely that both language economy and language policy could be the reasons why shorter forms of the adjectives are preferred.

The first and second rival pattern of adjectives are typical of Latvian, while the third pattern involving the competition of adjectives with simplex and complex suffixes is excluded here. As in Lithuanian, collocations include mostly simplex and action or resultative nouns. The second rival pattern involving the competition between simplex or correlative and suffixed adjectives is rare in Latvian. That is why the said language seems to be least sensitive to the rivalry of borrowed and hybrid adjectives. It could be an argument for the assumption that the integration of borrowed adjectives is more straightforward in Latvian than in the other investigated languages.

The first and third rival patterns of borrowed and hybrid adjectives are intrinsic to English and Russian. The second rival pattern could be singled out in the latter language if the stem were of native origin. As the present study focuses on borrowed and hybrid adjectives, the second pattern involving competition between simplex or correlative and suffixed adjectives is excluded. When an adjective is borrowed in Russian, both a suffix and an inflection are added directly, meanwhile in Lithuanian and Latvian, it is possible to add only an inflection or both a derivational suffix and an inflection.

It seems that Russian dictionaries of paronyms succeeded quite well in highlighting the differences between the two competing variants of adjectives with simplex and complex suffixes. Even though the dictionaries of paronyms usually emphasize the distinct meaning of words, NKRJa shows that the competing variants of adjectives are synonymous to some degree and can differ from one another only by their derivational suffix (cf. цинич-еск-й, -ая, -ое and цинич-ный, -ая, -ое; герой-ск-й, -ая, -ое and героич-ес-кий, -ая, -ое; комфорт-ный, -ая, -ое and комфорт-абель-ный, -ая, -ое).

As far as English is concerned, it has to be noted, however, that the analysed adjectives in -ive and -ory seem to be stylistically marked in comparison to the adjectives in -ic and -ical which seem to be stylistically neutral and have a wide range of use (cf. pedagog-ic / pedagog-ical, bibliograph-ic / bibliograph-ical, metaphor-ic / metaphor-ical). According to corpus data, adjectives containing the suffixes -ive and -ory are stylistically foregrounded and are used in different registers, such as linguistics (declarat-ive), law (declarat-ory), journalism (investigat-ive) finance (stimulat-ive), medicine or biology (stimulat-ory).

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36 As regards English, see Footnote 18.
Even though 5942 adjective-noun collocations have been analysed, it is still not easy to offer a principled differentiation between some competing variants of adjectives, especially when they are not used in a particular register.

5. Conclusions

1. Three rival patterns of borrowed and hybrid adjectives are typical of Baltic, Slavic, and Germanic languages, i.e.:
   1. competition between derivatives with different suffixes;
   2. competition between simplex or correlative and suffixed adjectives;
   3. competition between derivatives with simplex and complex suffixes.
2. The first rival pattern is the most productive and characteristic of Lithuanian, Latvian, Russian and English, whereas the second one is typical of Lithuanian and Latvian. The third pattern is intrinsic to Lithuanian, Russian, and English. Regarding the productivity of the second and third patterns, it varies with different languages.
3. There is some discrepancy between information given in dictionaries and the one gathered from corpora. The former (particularly dictionaries of Russian), as a rule, indicate paronymic relations between different adjectives having the same borrowed root, whereas the latter show partial synonymy. The exception to this case seems to be the Dictionary of Standard Latvian (LLVV) which is sensitive to synonymous usage of borrowed and hybrid adjectives. In some cases, the synonymous relations between borrowed or hybrid adjectives given in LLVV are not supported by the data from the Balanced Corpus of Modern Latvian (LVK2013), but can be found in the corpus Saeima-2.0 which seems to illustrate the latest tendencies in the usage of contemporary Latvian.
4. The discrepancy of information given in various sources could be an argument for the ongoing rivalry between different types of borrowed and hybrid adjectives in the Baltic, Slavic, and Germanic languages. This shows the development of the processes concerning the integration of borrowed vocabulary into the morphological and semantic systems of researched languages. The integration of borrowed adjectives seems to be more straightforward in Latvian than in other investigated languages. In the case of some languages, particularly Lithuanian, language policy can also be involved in these processes.
5. Further investigations into the rivalry of borrowed and hybrid adjectives should strive to concentrate on detailed corpus-based semantic and statistical analysis of adjective-noun collocations.

Acknowledgements

This article is based on a presentation at the Third Conference on Universals and Typology in Word Formation, Košice 26-28 June 2015. We thank Dr. Stefan Th. Gries for his help and several useful comments on an earlier draft of this paper. We are also grateful to Hannah Shipman for proofreading the English text. We would like to thank anonymous reviewers for their constructive comments and suggestions. Needless to say, we alone are to blame for any remaining errors.
References


**Data sources**


**Abbreviations**
Colloq – colloquial
Dial – dialect(al)
Eng – English
Fr – French
Lat – Latin
Latv – Latvian
Lith – Lithuanian
Rus – Russian

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