

*Aleksandra A. Janić*

University of Niš,  
2, Ćirila i Metodija, Niš, 18 105, Serbia  
aleksandra.janic@filfak.ni.ac.rs

*Marta V. Veličković*

University of Niš,  
2, Ćirila i Metodija, Niš, 18 105, Serbia  
marta.velickovic@filfak.ni.ac.rs

## The association networks of select recent nominal anglicisms and their Serbian language equivalents\*

**For citation:** Janić A. A., Veličković M. V. The association networks of select recent nominal anglicisms and their Serbian language equivalents. *Vestnik of Saint Petersburg University. Language and Literature*. 2023, 20 (4): 888–905. <https://doi.org/10.21638/spbu09.2023.413>

This study aims to compare the association networks of 40 pairs of recent nominal anglicisms and their Serbian equivalents among 100 philology students by using a word association test. The results of the qualitative and quantitative analyses of the associative responses indicated that different, yet related, parts of the respondents' mental lexicon are activated as a reaction to the stimuli. We concluded that there were strong tendencies for the complete acceptance of the selected recent anglicisms into the existing Serbian lexicon, as illustrated by the encyclopedic knowledge evident in the responses; that Serbian equivalents were the most frequent responses to the recent anglicisms; that responses which reflect clear linguacultural elements indicated a greater influence of the local culture; and that the recent anglicisms were less prone to superordinate and subordinate responses. In sum, our respondents, all L1 Serbian speakers, did not equally accept all 40 of the recent anglicisms compared to their Serbian equivalents, which in this study represent the norm. The acceptance of the selected recent anglicisms into the Serbian lexical system cannot be reduced solely to the criterion of necessity; instead, we propose that their scalar presentation be implemented in future research.

*Keywords:* word associations, associative networks, semantic relations, nominal anglicisms, the Serbian language, L1 Serbian speakers.

### Introduction

The use of associations originates from the psychometric work from the 19<sup>th</sup> century. They have long been used in psychology to test for mental issues among the elderly, those with dementia, aphasia, psychosis [Mollin 2009]. Later, associations were used in cognitive psychology and corpus linguistics, and today in applied linguistics and foreign

---

\* This research was funded by the Science Fund of the Republic of Serbia, *Structuring Concept Generation with the Help of Metaphor, Analogy and Schematicity* — SCHEMAS (Grant no. 7715934), and supported by the Ministry of Science, Technological Development and Innovations of the Republic of Serbia (Contract no. 451-03-47/2023-01/200165).

language learning [Fitzpatrick 2006; 2007]. They play a prominent role in determining the structure of the mental lexicon, thus clarifying how words are stored and retrieved. Fitzpatrick et al. [Fitzpatrick 2013] cite the advantages of using associative methods in such analyses, as they are a simple and quick way of compiling data.

Studies of associations belong to two groups: the first includes studies focusing on how much associative responses fit into existing norms of the recipient language (for a view of purist accounts of this issue in various European languages see, inter alia, Kaltz, Meiser and Haider Munske [Kaltz, Meiser, Haider Munske 2020: i–iii]), while the second focuses on the relationship between the stimulus and the responses [Fitzpatrick et al. 2013]. Associations can be discreet (one response per stimulus), continuous (several responses), free (without limitations in terms of part of speech), controlled (with limitations in terms of part of speech, etc.), as well as syntagmatic and paradigmatic, cf. [Dragičević 2010; Meara 2009]. Responses to nominal stimuli are often paradigmatic responses, to adverbial stimuli are syntagmatic responses [Mollin 2009], and to adjectives are usually true antonyms, if they exist [Dragičević 1996; 2007; 2010]. Despite the claim that associations, as a subjective and facultative component of meaning, contrary to sense and denotation, need not be uniform [Prčić 2016], associative responses do follow certain patterns and are typically classified as: antonyms, synonyms, hypernyms and hyponyms, words from the same semantic field, and of the same word type.

In linguistic research to date, associations have found application in the design of associative dictionaries and grammars (i. e., Karaulov's [Karaulov 1993] associative grammar of Russian). By analyzing association networks, it is possible to reach the prototype of a certain category, and thus determine the way in which an (abstract) occurrence is conceptualized [Dragičević 2007]. Some associative studies of Serbian lexis, for example, focused on: somatisms in Serbian and Russian [Razdobudko 1995], linguistic-grammatical characteristics of the pronoun *ja* [Ristić 2007], the connotative grouping of associations depending on the semantic characteristics of the stimuli [Pantelić 2009], and lexicalized nominal diminutives with the suffix *-ica* [Janić 2017]. In addition, Dragičević [Dragičević 2010] studied associations from a linguacultural point of view.

Associations can also be used to study the adoption of anglicisms. Today it is virtually impossible to negate the importance which English, as the lingua franca, has on other languages, nor can anglicisms be excluded from the analyses of dynamic linguistic processes. The English language is considered to be the most widespread second language in Europe, among other things due to the expansion and influence of the European Union [Hinrichs 2008: 55; Kaltz, Meiser, Haider Munske 2020: i–iii]. This prevalence has led to a virtual 'global bilingualism' [Kaltz, Meiser, Haider Munske 2020: i]. At the same time, there is increased interest in the linguistic image of all of Europe, including both EU and non-EU member states, which has become the focus of study of Eurolinguistics, cf. [Hinrichs 2008]. Linguistic material from Slavic languages is also required to complete this linguistic image, as they are insufficiently represented in analyses of this kind, as opposed to most EU languages which have received considerably more attention.

Anglicisms in Serbian are frequently found in the fields of politics, economy, education, science, sport, culture. *A Dictionary of European Anglicisms* [Görlach 2001] states that increased interest in anglicisms dates back to the end of WWII [Görlach 2001: xvi], but that it rapidly increased after the tumultuous political upheaval dating back to the early 1990s [Görlach 2001: xv]. A non-selective and superficial adoption of English lexis with

existing Serbian equivalents was noted in the media [Janić, Stamenković 2022], but also during reform processes within society [Panić-Kavgić 2006]. Prototypical anglicisms in the Serbian language are viewed by Prčić [Prčić 2019] as obvious, reshaped, (fully) necessary and completely adopted by the lexical system of Serbian, such as *kompjuter*, *tinejdžer*, etc. While the use of terminological anglicisms in Serbian is mostly justified [Đorđević 2017], this does not extend unconditionally to non-terminological ones, cf. [Drljača-Margić 2011; Prčić 2019]. The emergence and frequency of recent non-terminological, unnecessary anglicisms and their Serbian equivalents are illustrated in Serbian language dictionaries, including the latest edition of the *Srpski rečnik novijih anglicizama* [Prčić et al. 2021]. Examples include *gril* (instead of *roštilj*), *drinker* (instead of *pijanica*), *kasting* (instead of *audicija*), and *kouč* (instead of *trener*). However, when it comes to ‘unnecessary’ anglicisms, it is important to mention that in some cases anglicisms can undergo a change in meaning, or ‘deviate’ from their original connotation, acquiring “non-English meanings” [Görlach 2001: xvii, xx]. As a result, it is important to analyze, in as much detail as possible, how anglicisms fit into the mental lexicon of the recipient language.

The associative method has not been used to compare recent anglicisms and their Serbian equivalents, to date. Thus, this study compares their associative networks to determine how select recent anglicisms fit into existing networks of knowledge underlying the Serbian mental lexicon, by identifying the dominant lexico-semantic relations of the associative responses to the recent anglicisms and determining how they differ from the responses to their equivalents.

Our study had two starting points. One was Aitchinson’s [Aitchinson 2003] network theory, whereby individual lexemes are connected into networks and meaning is achieved by activating a greater number of words in response to a stimulus. The theory proposes that the addition of lexemes changes the form and scope of the mental lexicon. The other was McCarthy’s [McCarthy 1990] principle of the existence of different mental lexicons for different languages. When it comes to vocabulary acquisition, he states that the human mind functions less as a dictionary and more like a network of mutually connected lexical units, whereby these connections can be analyzed using associations.

The structure of the paper is as follows: the second section provides a theoretical account of the key concepts; the third provides information on the methodology, respondents, and data collection; the fourth presents the most frequent response types, analyzed and compared from a cognitive and semantic point of view, while the conclusions are presented in the final section.

## Theoretical background

As Serbian belongs to the western sub-group of South-Slavic languages, we focused on presenting the main associative studies in this closely related group of languages. Seguin [Seguin 2015] studied how words are stored in the mental lexicon in the case of Croatian. Her study was based on the premise that words are not stored individually, but in mutually connected networks. So, new words, which are introduced into the mental lexicon, are learned through association with existing elements. Citing examples such as *money* and *curiosity*, Seguin [Seguin 2015: 83] pointed out that nationality (the cultural-linguistic impact) of the respondents should be included in the analysis of the results, to connect the experience achieved by interacting with the world and the associations in

word association tasks (WATs). Đurčević and Kostić [Đurčević, Kostić 2021] studied the reasoning behind the division into necessary and unnecessary anglicisms in Montenegrin. Their usage-based approach focused on loanwords in everyday language, as well as on their denotative and connotative status. One of their conclusions was that due to different connotative meanings, there are no unnecessary loanwords whose sole role would be to fill the gaps in the lexicon.

To expand this type of research into the Serbian linguistic environment, we relied on the following concepts. The term *word association networks* was introduced by Meara (see [Meara 2009]), and it depicts how the meaning of a group of words is explained by using another from a different language. It identifies the lexico-semantic connections between the stimuli and the responses within a network, i.e., mental lexicon. For WATs, which lack context, speakers rely on non-linguistic knowledge for insight. Evans [Evans 2009: 205] refers to this knowledge as access sites, citing that they are theoretical constructs, which make up the association areas connecting lexical concepts and cognitive models. Thus, an associative field consists of a group of associations for a lexical unit.

The term *semantic frame* originates from the work of Fillmore [Fillmore 1976]. He defined it as non-linguistic knowledge about a concept, occurrence, or entity that helps us better understand it. In the case of a single stimulus, it is possible to activate more than one frame, which may lead to considerably different responses. Non-linguistic knowledge is also known as encyclopedic knowledge. Littlemore [Littlemore 2009: 71] claimed it could be considered a group of mutually connected data, whereby various parts of this 'data inventory' are activated by various stimuli. We point out that encyclopedic knowledge refers both to denotation, and the associated connotations the respondents are exposed to in their environment. The aforementioned confirms the role encyclopedic knowledge plays in testing the extent to which the meaning of loanwords is known, and the possibility of varied responses.

Association networks, the mental lexicon, and encyclopedic knowledge were also studied by cognitive linguists who relied, in part, on semantic frames and idealized cognitive models (ICMs). ICMs are schematic, relatively stable ways of organizing our knowledge of the world. Due to their prototypical and radial structure, and their abstract nature, they can be applied to numerous concepts. Littlemore [Littlemore 2009] cites that ICMs depend on stereotypical representations of the world, and are closely related to cultural models, which can then be linked to the linguacultural analysis of associative responses. A proper interpretation of an ICM requires the activation of various data, as in the example of *outing*: going to a tavern or the movies, vs drinking or just eating popcorn, vs spending time with one person or several people [Littlemore 2009: 80], which is culturally conditioned.

Evans [Evans 2009] stated that semantic frames give shape to cognitive models. He concluded that all the experiences we have of the world, recognized in the lexical units we use, are largely conditioned by our geographical and lexical environment. Loanwords in general are inextricably linked to the L1 contexts they are typically used in. In the Lexical Concepts and Cognitive Models (LCCM) theory, Evans [Evans 2009] explains the link between lexical concepts (words) and our knowledge of the world (cognitive models), whereby this knowledge is accessed via lexical units. Masalova [Masalova 2017] shares a similar stance, pointing out that our language and awareness of the world around us make a unified whole, which reflects both the world and its diverse makeup. Changes in one leave the other susceptible to change as well.

Frames and ICMs are not the only cognitive linguistic concepts which can be linked to associative responses. A similar pattern can be seen in schemas (food and restaurants) and categories (food and pasta), as illustrated in [Sharifian 2001]. In both cases these are culturally conditioned associations. The significance of linguacultural data for linguistic analysis stems from the determined link between language and the cultural environment of a speaker.

Accordingly, the following hypotheses were tested:

1. Differences between responses (synonyms, hypernyms/hyponyms, and illustrations of encyclopedic knowledge) divulge the specificities of the organization of the mental lexicon as it pertains to recent anglicisms and their Serbian equivalents.
2. The responses to recent anglicisms will mostly be their Serbian equivalents.
3. From a linguacultural point of view, responses to recent anglicisms indicate the impact of the foreign culture, while responses to the equivalents indicate that of the local culture.
4. L1 Serbian speakers will not equally accept all recent anglicisms, revealing the current acceptance level of loanwords in Serbian.

## Materials and Methods

Since a similar study of L1 Serbian respondents has not been done to date, an exploratory survey research design with open-ended questions was selected. It provided quick access to a wide population of respondents and body of data. Convenience sampling was chosen for the same reason, especially since no statistical analyses were included.

The study encompassed 100 respondents, students of the Department of Serbian Language and Literature (47) and the Department of English (53) of the Faculty of Philosophy, Niš from all three levels of study in the 2021/22 academic year. The 13 males and 87 females are native speakers of Serbian, with an average age of 22.99 years. On average, they had spent at least 12 years studying English as a second language (eight years during elementary school education, and another four during high school). Twenty-four respondents estimated their knowledge of English to be at the C1 level, 28 at the B2, and 4 at the A1/A2 level.

A questionnaire designed specifically for this study was completed anonymously by the respondents in March and April 2022, online, in Google Forms format. The respondents were instructed to provide one (the first) association to the given recent anglicisms and their Serbian equivalents (80 items in total), which implied free and discrete associations. No limitations on the form of the associative response were imposed (e. g. a word, phrase, or clause). The questionnaire was mailed to the institutional email addresses of all the students of the aforementioned departments. The respondents gave informed consent for their responses to be analyzed in the study.

All the stimuli were extracted from the *Srpski rečnik novijih anglicizama* [Prčić et al. 2021]. Initially, 147 items were selected from the dictionary. Ultimately, only the items both authors agreed upon were included. The inclusion criterion was that they were unambiguous nouns with single-lexeme counterparts in Serbian. Hyphenated words (*ajskafa*), anglicisms with a Serbian suffix (*džogiranje*), ambiguous/polysemous anglicisms (*adrenalin*), homonymous anglicisms (*ikona*), acronyms (*HIV*), and combinations of an anglicism and a Serbian word (*fleš-kartica*) were excluded.

The final list of 40 pairs of stimuli (a recent nominal anglicism and its Serbian equivalents), were presented in alphabetical order to the respondents one at a time: *apstrakt — sažetak, bajer — kupac, bartender — šanker, bedž — značka, bekpek — ranac, benefit — korist, blend — mešavina, bos — gazda, brauzer — pretraživač, buking — rezervacija, buzer — pijanica, destinacija — odredište, drajer — sušilica, dresing — preliv, džekpot — premija, esej — sastav, fajl — datoteka, fajt — tuča, fešn — moda, frosting — glazura, gik — zanesenjак, gift — poklon, holder — držač, keš — gotovina, komjuniti — zajednica, luzer — gubitnik, nerd — štreber, ofis — kancelarija, parti — žurka, popkorn — kokice, printer — štampač, rafting — splavarenje, riseler — preprodavac, saund — zvuk, spouksmen — portparol, stejdž — pozornica, stiker — nalepnica, stor — prodavnica, šoper — mušterija, vorkšop — radionica.*

The obtained associative responses were analyzed quantitatively (percentages) and qualitatively for each dominant type of response (illustrations of encyclopedic knowledge, synonyms, hypernyms/hyponyms). Both authors took part in analyzing and categorizing the response types, while adhering to lexicographic definitions and contextual use.

## Results and Discussion

Table 1 shows the frequency of the types of noted responses (percentages) for all of the stimuli.

Table 1. Frequency of response types

Response type	Frequency (%)
Encyclopedic knowledge	32.21
Synonyms	31.19
Hypernyms/hyponyms	14.77
Unrelated	12.57
Missing	5.67
Syntagms	2.42
Antonyms	1.01
Words in English	0.86
Derivations	0.12

In accordance with the selected cognitive linguistic theoretical framework, illustrations of encyclopedic knowledge, synonyms, and hypernyms/hyponyms, which comprise approximately four-fifths of all the responses, were analyzed in detail. The remaining responses were not of considerable importance for the analysis of the mental lexicon of the respondents or the cognitive processing of the stimuli, but the data which they provided were used to determine the level of acceptance of the recent anglicisms.

### Analysis of the responses: encyclopedic knowledge

This section includes responses which could not be classified as hypernyms, hyponyms, or synonyms (for example: *keš — račun, pozornica — nastup*; compared to *keš —*

novac, pozornica — predstava), but are a part of the non-linguistic knowledge of the respondents. They make up 32.21 % of the 8000 compiled responses. Some 66.7 % were responses to equivalents, and 33.3 % responses to recent anglicisms. They range from 3 to 83 per stimulus.

Distributed based on the number of these responses, the stimuli are: *kokice* (83), *rezervacija* (83), *štampanac* (72), *poklon* (70), *radionica* (70), *šanker* (70), *prelivanje* (67), *rafting* (67), *glazura* (66), *sušilica* (65), *ranac* (61), *pijanica* (60), *sažetak* (60), *štreber* (58), *mešavina* (57), *značka* (53), *moda* (52), *preprodavac* (51), *prodavnica* (49), *buking* (47), *tuča* (47), *kupac* (45), *portparol* (44), *mušterija* (43), *džekpot* (41), *gazda* (40), *bedž* (39), *popkorn* (39), *pozornica* (38), *splavarenje* (38), *frosting* (38), *dresing* (37), *bartender* (36), *nalepnica* (35), *žurka* (35), *premija* (33), *držač* (32), *stiker* (32), *destinacija* (28), *esej* (27), *kancelarija* (27), *saund* (27), *printer* (24), *sastav* (24), *gubitnik* (23), *fajl* (22), *nerd* (21), *stejdž* (21), *šoper* (21), *fešn* (17), *holder* (17), *apstrakt* (16), *bajer* (16), *fajt* (16), *gift* (16), *blend* (15), *keš* (15), *ofis* (15), *spouksmen* (15), *bekpek* (14), *buzer* (14), *zvuk* (14), *parti* (14), *datoteka* (12), *drajer* (12), *riseler* (12), *gik* (11), *luzer* (11), *vorkšop* (10), *odredište* (9), *pretraživač* (9), *benefit* (8), *gotovina* (8), *komjuniti* (8), *brauzer* (7), *zanesenjak* (7), *zajednica* (7), *bos* (6), *stor* (6), *korist* (3).

Due to the considerable frequency of these responses, they were analyzed in pairs (a recent nominal anglicism and its Serbian equivalent). The number of responses for each pair is presented below:

*apstrakt* (16) — *sažetak* (60), *bajer* (16) — *kupac* (45), *bartender* (36) — *šanker* (70), *bedž* (39) — *značka* (53), *bekpek* (14) — *ranac* (61), *benefit* (8) — *korist* (3), *blend* (15) — *mešavina* (57), *bos* (6) — *gazda* (40), *brauzer* (7) — *pretraživač* (9), *buking* (47) — *rezervacija* (83), *buzer* (14) — *pijanica* (60), *destinacija* (28) — *odredište* (9), *drajer* (12) — *sušilica* (65), *dresing* (37) — *prelivanje* (67), *džekpot* (41) — *premija* (33), *esej* (27) — *sastav* (24), *fajl* (22) — *datoteka* (12), *fajt* (16) — *tuča* (47), *fešn* (17) — *moda* (52), *frosting* (38) — *glazura* (66), *gift* (16) — *poklon* (70), *gik* (11) — *zanesenjak* (7), *holder* (17) — *držač* (32), *keš* (15) — *gotovina* (8), *komjuniti* (8) — *zajednica* (7), *luzer* (11) — *gubitnik* (23), *nerd* (21) — *štreber* (58), *ofis* (15) — *kancelarija* (27), *parti* (14) — *žurka* (35), *popkorn* (39) — *kokice* (83), *printer* (24) — *štampanac* (72), *rafting* (67) — *splavarenje* (38), *riseler* (12) — *preprodavac* (51), *saund* (27) — *zvuk* (14), *spouksmen* (15) — *portparol* (44), *stejdž* (21) — *pozornica* (38), *stiker* (32) — *nalepnica* (35), *stor* (6) — *prodavnica* (49), *šoper* (21) — *mušterija* (43), *vorkšop* (10) — *radionica* (70). Of the 40 pairs of stimuli, the number of responses is greater when the stimulus is a Serbian equivalent, 30 pairs, and vice versa for the remaining 10.

The activated frames and/or ICMs for recent anglicisms and their equivalents are often in a superordinate or subordinate relationship. For each pair of stimuli, given in alphabetical order, the following were activated: for *apstrakt* — *sažetak* the semantic frame 'academic writing', the ICM *writing*, and the semantic frame 'essay'; for *benefit* — *korist* the ICMs *financial gain* and *profit*; for *bos* — *gazda* the semantic frame 'boss' and the ICM *running a company*; for *buking* — *rezervacija* the semantic frame 'holiday travel', and the ICM *place for entertainment*; for *destinacija* — *odredište* the semantic frame 'holiday destination'; for *esej* — *sastav* the ICM *university education* and *junior high education*; for *keš* — *gotovina* the ICM *financial transactions* and *shopping*; for *ofis* — *kancelarija* the semantic frame 'office' and 'place of business'; for *popkorn* — *kokice* the semantic frames 'popcorn', 'movie theatre' and 'making popcorn'; for *riseler* — *preprodavac* the ICM *purchase and*

*sale* and the purchase and sell of used goods; for *stiker* — *nalepnica* the ICM location for a sticker and label; for *fajt* — *tuča* the semantic frames ‘fight’ and ‘bar fight’; for *fešn* — *moda* the ICM *fashion*, the semantic frame ‘fashion’, and the ICM *fashion design*; and for *šoper* — *mušterija* the semantic frame ‘shopping’ and the ICM *store*.

Identical semantic frames and/or ICMs were activated for the following pairs: for *bajer* — *kupac*, the ICM *types of stores* and the semantic frame ‘pharmaceuticals’, and the ICM *types of stores*; for *bartender* — *šanker* the semantic frame ‘bar’; for *bekpek* — *ranac* the semantic frame ‘backpack’; for *brauzer* — *pretraživač* the semantic frame ‘computer’; for *gift* — *poklon* the semantic frame ‘gift’; for *luzer* — *gubitnik* the ICM *competition*; for *nerd* — *štreber* the semantic frame ‘nerd’; for *parti* — *žurka* the semantic frame ‘party’; for *printer* — *štampanč* the semantic frame ‘printer’; for *rafting* — *splavarenje* the semantic frames ‘rafting’ and ‘water-based activities’; for *saund* — *zvuk* the semantic frame ‘music’ and the ICM *different sounds*; for *stejdž* — *pozornica* the semantic frame ‘stage’, and the ICM *dramatic arts*; for *fajl* — *datoteka* the semantic frame ‘computer’; for *frosting* — *glazura* the semantic frame ‘cake’; for *holder* — *držač* the ICM *things to hold*; and for *džekpot* — *premija* the semantic frame ‘lottery’.

Different frames and/or ICMs emerged for the following pairs: for *bedž* — *značka* the semantic frames ‘scout’ and ‘accessories’, along with the ICM *insignia*; for *blend* — *mešavina* the ICMs *circular motion* and *food*; for *buzer* — *pijanica* the ICMs *booze* and *ostracized* and the semantic frame ‘tavern’; for *vorkšop* — *radionica* the semantic frames ‘employment’, ‘workshop’ and ‘education’; for *gik* — *zanesenjak* the semantic frame ‘nerd’ and the ICM *preoccupation with something*; for *dresing* — *preliv* the semantic frames ‘salad’, ‘desert’ and ‘hair’; for *komjuniti* — *zajednica* the ICM *verbal communication* and semantic frame ‘neighborhood’; for *spouksmen* — *portparol* the semantic frame ‘news’ and the ICM *institutions*; and for *stor* — *prodavnica* the ICM *online apps* and semantic frame ‘supermarket’.

Since responses illustrating encyclopedic knowledge were analyzed to determine how our respondents perceive the world around them, based on the greater number of similar activated frames and ICMs it is safe to say that the recent anglicisms included in this study did activate the same, or at least similar, segments of the respondents’ mental lexicon. This in turn reflects the respondents’ level of proficiency and the level of acceptance of these lexemes.

## Analysis of the responses: synonyms

Even though complete synonymy in all contexts and functional styles cannot be found, words with the same meaning (at least in the same context) are the second most frequent type of response to the nominal stimuli of recent anglicisms and their equivalents. They made up 31.19 % of the responses, ranged from 1 to 79, i. e., and were noted for each of the 80 nominal stimuli. Recent anglicisms were more susceptible to synonyms (66.73 %) compared to their equivalents (33.27 %).

The stimuli are presented in descending order based on the number of responses which are synonymous with them: *gift* (79), *ofis* (76), *printer* (71), *stejdž* (71), *parti* (69), *bekpek* (68), *fešn* (68), *fajt* (65), *saund* (65), *benefit* (63), *nerd* (60), *popkorn* (59), *luzer* (57), *stiker* (57), *komjuniti* (56), *holder* (55), *nalepnica* (53), *odredište* (52), *gik* (49), *mušterija* (47), *stor* (47), *gazda* (46), *datoteka* (46), *šoper* (46), *korist* (45), *riseler* (42), *vorkšop* (42),

*gubitnik* (41), *brauzer* (39), *gotovina* (37), *buking* (34), *bartender* (32), *pozornica* (32), *destinacija* (31), *pijanica* (31), *bedž* (30), *bos* (30), *poklon* (26), *sažetak* (26), *esej* (25), *kupac* (25), *fajl* (25), *blend* (24), *štreber* (24), *značka* (24), *džekpot* (22), *zanesenjak* (21), *sastav* (21), *glazura* (20), *dresing* (20), *šanker* (20), *štampanč* (20), *frosting* (19), *drajer* (18), *bajer* (16), *žurka* (16), *preprodavac* (15), *tuča* (15), *kancelarija* (14), *mešavina* (14), *apstrakt* (13), *portparol* (10), *rezervacija* (10), *keš* (9), *ranac* (9), *splavarenje* (9), *premija* (8), *radionica* (8), *sušilica* (8), *preliv* (7), *prodavnica* (7), *pretraživač* (6), *rafting* (5), *moda* (5), *buzer* (4), *držač* (4), *kokice* (4), *spouksmen* (4), *zajednica* (3), *zvuk* (1).

Although they understood the meanings of the recent anglicisms, the respondents did not additionally specify them. They gave an advantage to the equivalents, which resulted in Serbian equivalents being the most frequent responses. This in effect confirms hypothesis 2. On the other hand, the recent anglicisms were not among the most frequent responses to the Serbian equivalents. For example, for the pairs such as *keš* — *gotovina*, *rafting* — *splavarenje*, *fajl* — *datoteka*, and *printer* — *štampanč* the corresponding anglicism was only one of the possible responses, and vice versa. In as many as 22 instances of the 40 pairs of stimuli, however, this was not the case (for example, the most frequent response to the stimulus *bartender* was the equivalent *šanker*, while for the stimulus *šanker* the expected response of *bartender* was not given, instead it was *piće*). For the remaining pairs, the responses took the form of several synonyms.

Multiple-word synonyms, e.g. synonyms in the form of syntagms, and sentences rarely occurred as a response to the recent anglicisms compared to their equivalents.

### Analysis of the responses: superordinate and subordinate lexemes

Semantically superordinate and subordinate responses made up 14.77% of the total number of responses, ranging from 0 to 72 per stimulus. The stimuli are presented in descending order based on the number of provided responses: *zvuk* (72), *zajednica* (71), *keš* (64), *pretraživač* (52), *gotovina* (50), *premija* (48), *fajl* (47), *kancelarija* (43), *esej* (40), *sastav* (40), *žurka* (37), *datoteka* (36), *prodavnica* (35), *spouksmen* (35), *destinacija* (31), *džekpot* (31), *odredište* (31), *brauzer* (30), *držač* (30), *tuča* (25), *pozornica* (24), *ranac* (22), *moda* (21), *komjuniti* (20), *preliv* (19), *portparol* (16), *bartender* (14), *mešavina* (14), *bedž* (13), *preprodavac* (12), *blend* (11), *fajl* (10), *benefit* (9), *korist* (8), *šanker* (8), *štreber* (8), *frosting* (7), *kokice* (7), *parti* (7), *sušilica* (6), *značka* (6), *dresing* (5), *sažetak* (5), *stiker* (5), *stor* (5), *štampanč* (5), *zanesenjak* (5), *gazda* (4), *glazura* (4), *mušterija* (4), *nalepnica* (4), *fešn* (3), *rafting* (3), *drajer* (2), *ofis* (2), *radionica* (2), *stejdž* (2), *šoper* (2), *gik* (1), *gubitnik* (1), *kupac* (1), *luzer* (1), *pijanica* (1), *poklon* (1), *rezervacija* (1), *riseler* (1), *splavarenje* (1), *holder* (1).

Equivalents as stimuli were more susceptible to responses, which were superordinate or subordinate to the lexeme in question (65.99%), unlike the recent anglicisms (34.01%). However, *keš* and its equivalent *gotovina* had a comparatively similar number of these responses, as did *benefit* and *korist*, *esej* and *sastav*, *mešavina* and *blend*, *šoper* and *kupac*, *gubitnik* and *luzer*. In the remaining cases the equivalents had a greater number of superordinate or subordinate responses: for example, *tuča* compared to *fajl*, *pretraživač* to *brauzer*, *preprodavac* to *riseler*, *prodavnica* to *stor*.

In 67.5% of all the pairs, superordinate/subordinate lexemes as responses were noted both for recent anglicisms and their equivalents. Among them, the superordinate and subordinate responses were identical for the pair *bartender* — *konobar*, overlapped in part

for the pairs *benefit* — *usluga*, *blend* — *mešavina*, *brauzer* — *pretraživač*, *destinacija* — *odredište*, *drajer* — *sušilica*, *dresing* — *preliv*, *esej* — *sastav*, *fajl* — *datoteka*, *fajt* — *tuča*, *fešn* — *moda*, *frosting* — *glazura*, *džekpot* — *premija*, *holder* — *držač*, *keš* — *gotovina*, *komjuniti* — *zajednica*, *ofis* — *kancelarija*, *parti* — *žurka*, *riseler* — *preprodavac*, *spouksmen* — *portparol*, *stor* — *prodavnica*, while no overlaps were noted in the responses to the following pairs: *bedž* — *značka*, *gik* — *zanesenjak*, *luzer* — *gubitnik*, *rafting* — *splavarenje*, *stejdž* — *pozornica*, *šoper* — *mušterija*.

In 53.7% of the aforementioned pairs, the number of different responses of the superordinate or subordinate type was greater for the equivalents. The number is identical in 14.29% of the pairs, and greater for anglicisms as stimuli in 32.14% of the pairs.

As previously indicated, Serbian equivalents were more prone to superordinate (65:50) and subordinate (81:60) responses than recent anglicisms, while the number of responses of the same level (11:10) was virtually identical for both types of stimuli, respectively. When comparing tendencies towards superordinate, subordinate, and responses of the same level among anglicisms and their equivalents, different tendencies in the most frequent responses were noted for the following pairs: *esej* — *sastav*, *ofis* — *kancelarija*, *parti* — *žurka* (superordinate responses were dominant for the first members of the given pairs and subordinate for the second, in all the pairs); then vice versa for *gik* — *zanesenjak*, *stiker* — *nalepnica*, *šoper* — *mušterija*; while for the pair *blend* — *mešavina* subordinate responses were dominant for the anglicism and responses of the same level for the equivalent. In the remaining pairs identical tendencies were noted for the anglicisms and their equivalents:

1) towards superordinate lexemes: *destinacija* — *odredište*, *riseler* — *preprodavac*, *spouksmen* — *portparol*, *fajl* — *datoteka*, *fajt* — *tuča*, *fešn* — *moda*, *džekpot* — *premija*;

2) towards subordinate lexemes: *benefit* — *korist*, *brauzer* — *pretraživač*, *komjuniti* — *zajednica*, *stor* — *prodavnica*, *frosting* — *glazura*, *holder* — *držač*.

Equally high numbers of responses were noted for the pairs *bartender* — *šanker* (comeronyms), *drajer* — *sušilica*, *bedž* — *značka*, *luzer* — *gubitnik*, *rafting* — *splavarenje* (superordinate responses).

Based on responses of the superordinate/subordinate type, the anglicisms and their equivalents were not perceived as complete synonyms, which left the possibility for the specification of meaning. For example, *šoper* was not just any buyer, but a shopaholic, *blend* was associated by the respondents with liquid (*smuti*), while that was not necessarily the case with *mešavina* (*smesa*), *komjuniti* was associated with society, and *zajednica* with family, *parti* with (children's) birthdays and a good time, while *žurka* with music and a good time, *fajl* with a document, and *datoteka* with a folder, *fajt* with an argument and violence, *tuča* only with fighting or a struggle, *rafting* with sport, and *splavarenje* with sailing, *stejdž* with a podium, and *pozornica* with the theatre.

In sum, our analysis of these three most dominant types of responses provided us with considerable insight into the structure of the mental lexicon of our respondents. In turn, hypothesis 1 has been confirmed, in part.

## The association between synonyms and hypernyms/hyponyms

Synonyms, and therefore hypernyms and hyponyms, represent semantically associated lexical items in relation to the stimulus and are an important part of a network of associations. Based on the selected theoretical model, we consider them specific access

points to the mental lexicon of the respondents. Combining the frequency of the aforementioned types of responses, we reached the conclusion that they on average occur more often for recent anglicisms (56 %) than their Serbian equivalents (44 %).

In most cases, the sums of both analyzed types of responses to recent anglicisms and their equivalents have the same tendency in terms of a rise/fall in numbers. However, in the following examples, the tendency in the number of responses to the recent anglicisms and their equivalents is opposite (the first number in parentheses is the number of synonyms, and the second of hypernyms/hyponyms): *bekpek* (68:0) — *ranac* (9:22), *brauzer* (39:30) — *pretraživač* (6:52), *dresing* (20:5) — *preliv* (11:15), *fajt* (65:10) — *tuča* (15:25), *fešn* (68:3) — *moda* (5:21), *holder* (55:1) — *držač* (4:30), *komjuniti* (56:20) — *zajednica* (3:71), *ofis* (76:2) — *kancelarija* (14:43), *parti* (69:7) — *žurka* (16:37), *popkorn* (59:0) — *kokice* (4:7), *saund* (65:0) — *zvuk* (1:72), *stor* (47:5) — *prodavnica* (7:35). The only case where there are more hypernyms/hyponyms as responses to a recent anglicism than there are synonyms is *fajl* (25:47). The situation is opposite for its equivalent *datoteka* (47:35).

The aforementioned data imply that L1 Serbian speakers comprehend the meaning of each lexeme presented as a stimulus with the help of lexemes with a similar meaning, or lexemes, which are superordinate/subordinate. Fewer than 10 synonyms and hypernyms/hyponyms as responses were recorded in sum only for the stimuli *rafting* (8) and *buzer* (4), which means that the respondents predominantly did not comprehend their meaning by solely relying on their synonyms.

## The relationship between encyclopedic knowledge and hypernyms/hyponyms

Responses which illustrate encyclopedic knowledge and hypernyms/hyponyms also represent lexemes semantically related to the stimulus, and are key for analyzing the semantic frame activated by it. When we combine the frequency of examples of encyclopedic knowledge and hypernyms/hyponyms as responses to recent anglicisms and their equivalents, we can conclude that these types of responses on average are more frequent for Serbian equivalents (65.97:34.03 %).

Furthermore, examples of encyclopedic knowledge are more frequent than hypernyms/hyponyms as responses both to recent anglicisms and their equivalents. The exceptions are the following pairs of stimuli: *brauzer* — *pretraživač*, *destinacija* — *odredište*, *esej* — *sastav*, *keš* — *gotovina*, *komjuniti* — *zajednica*, as well as the following recent anglicisms: *spouksmen* and *fajl*.

Among most of the 40 pairs of stimuli, a parallel tendency for the increase in the number of responses which are illustrations of encyclopedic knowledge and hypernyms/hyponyms was noted. However, more of the former responses, and fewer of the latter (the second number in parentheses), were noted for the following stimuli: *spouksmen* (15:35) — *portparol* (44:16).

Fewer responses which are illustrations of encyclopedic knowledge, and more hypernyms/hyponyms were noted for the following stimuli, while the tendency is opposite for their equivalents: *džekpot* (41:31) — *premija* (33:48), *ofis* (15:2) — *kancelarija* (27:43), *parti* (14:7) — *žurka* (35:37), *saund* (27:0) — *zvuk* (14:72). Ten responses or fewer of this type were noted for *vorkšop* (10), *rezervacija* (9), and *bos* (5), which indicates a lower level of acceptance of the recent anglicisms *vorkšop* and *bos*.

In sum, different, but related, parts of the knowledge network, which lie at the basis of the mental lexicon of the respondents, are activated for recent anglicisms, that is, different parts of the corresponding ICMs. This indicates a strong tendency of the recent anglicisms for being completely accepted into the Serbian lexicon.

### A linguacultural analysis of the responses

It is well-known that cognitive linguistics and linguaculturology have some shared points: the former is linked to psycholinguistics, the latter to ethnolinguistics and ethnology, whereby associations represent a source of material for linguacultural, cognitive, and lexicological studies (see [Dragičević 2010]). Associations can be considered 'key words' which grant us access to how certain phenomena related to 'different linguacultural communities' are conceptualized [Masalova 2017: 103]. Kirvalidze [Kirvalidze 2017] concludes that these extralinguistic factors in fact intensify the meanings of anglicisms. L2 English speakers, when in contact with new lexemes, tend to merge the existing contextualized knowledge they have of their surroundings and the contextualized information being introduced through the new lexeme [Kecskes 2019].

Responses, which reflect clear linguacultural elements, were noted for 53 stimuli (66.25%). The following linguacultural features were noted in the responses to the recent anglicisms:

a) the influence of foreign culture: *bajer, bekpek, brazuer, buzer, destinacija, dresing, džekpot, fajl, fajt, fešn, frosting, komjuniti, ofis, printer, saund, šoper*;

b) the influence of local culture: *bos, buking, gift, esej, luzer, parti, rafting, riseler, stejdž, stiker, stor, šoper, vorkšop*;

c) an equal number of features of foreign and local culture: *spouksmen*.

The following linguacultural features were noted in the responses to the equivalents:

a) the influence of local culture: *gazda, kupac, mešavina, nalepnica, odredište, pozornica, poklon, premija, prodavnica, radionica, sastav, splavarenje, šanker, zajednica, žurka*;

b) the influence of foreign culture: *gubitnik, moda, portparol, pretraživač, ranac, štampač*;

c) an equal number of features of foreign and local culture: *kancelarija, preprodavac, rezervacija*.

Certain responses with this feature can even be classified into several groups. They include:

a) brands and companies (*Fejsbuk, Frikom, Google Chrome, Google Play, HP, Instagram\**, *Mikrosoft, ovlašćeni prodavac za Apple, Play Store, Safari, Vikipedija*);

b) stores (*Aman, Delta, Lidl, Maksi, Metro prodavnica, Top-šop, šopster.rs, Zlatni trag*);

c) cinematography (*Dosije Iks, Fight Club film, Jim Carrey, onaj film Poslednja ekskurzija, serija Ofis, serija Ubice moga oca i gazda mafijaš iz serije, Sunder Bob*);

d) music and performers (*Brejkersi, Đorđe Balašević, Exit, Grand Show, NCT, pesma Mileta Kitića, Stoja, 9-5, Dolly Parton*).

The general tendency is for the local culture to have a greater influence than the foreign one. Yet, for the recent anglicisms, the influence of foreign culture is more pronounced, while the opposite tendency is true for the equivalents. This confirms hypothesis

---

\* Meta is recognized as an extremist organization in Russian Federation.

3. It appears that the stimuli cited in this study completely fit into the existing knowledge networks that make up the mental lexicon of the respondents.

### The level of acceptance of recent anglicisms based on all types of responses

The tendency to accept recent anglicisms, other than in the form of responses which exemplify encyclopedic knowledge, synonyms, and hypernyms/hyponyms is also indicated by responses in the form of antonyms, (potential) collocations, and derivationally linked lexemes. The lack of acceptance of recent anglicisms is indicated by the occurrence of unrelated responses, missing responses, hapaxes, as well as the frequency of different responses. It is possible to determine the level of acceptance of a certain anglicism based on the aforementioned factors. We propose presenting the level of acceptance in scalar form, as follows.

Based on the number of recorded antonyms, the stimuli are presented in descending order: *keš* (7), *šoper* (3), *drajer* (2), *luzer* (2), *riseler* (2). The Serbian equivalents were more susceptible to antonyms, but the antonyms themselves were made up of words already well accepted in the Serbian lexical inventory.

Collocations were recorded for 24 of the recent anglicisms and almost as many lexemes from the group of equivalents: *brauzer* (14), *fešn* (5), *komjuniti* (5), *bos* (4), *destinacija* (4), *parti* (4), *fajt* (4), *fajl* (3), *gift* (2), *stiker* (2), *džekpot* (2), *stor* (2), *bedž* (1), *blend* (1), *buking* (1), *vorkšop* (1), *gik* (1), *keš* (1), *ofis* (1), *rafting* (1), *riseler* (1), *stejdž* (1), *holder* (1), *šoper* (1). The frequency of the collocations is twice as large for the equivalents than for the recent anglicisms.

Responses which are derivationally linked to the stimuli occur very rarely. They were noted for the following recent anglicisms: *blend* (5) and *bajer* (1), which indicates their potential for acceptance into the Serbian lexicon, in the sense of their inclusion in the derivational affixation processes in Serbian.

The highest number of missing responses was identified for stimuli such as *buzer*, *riseler*, *bajer*, *spouksmen*, *drajer*, *frosting*, *gik*, *rafting*, *šoper*, etc., which might indicate that these recent anglicisms have not been fully accepted into the Serbian lexical system. On the other hand, associations for Serbian equivalents and anglicisms that are accepted or frequently used, such as *žurka*, *zajednica*, *zvuk*, *kancelarija*, *keš*, *kokice*, *kupac*, *mušterija*, *odredište*, *ofis*, etc., were not missing.

Words which retained their original English language spelling given as responses are also indicators of weak levels of acceptance. Based on the number of such responses, the recent anglicisms include: *fešn* (5), *saund* (3), *holder* (3), *komjuniti* (2), *riseler* (2), *spouksmen* (2), *stejdž* (2), *frosting* (2), *apstrakt* (1), *buzer* (1), *buking* (1), *gik* (1), *gift* (1), *drajer* (1), *luzer* (1), *ofis* (1), *parti* (1), *popkorn* (1), *rafting* (1), *stiker* (1), *stor* (1), *fajl* (1), *džekpot* (1), *šoper* (1).

A greater frequency of hapaxes among the responses to recent anglicisms can be linked to the lack of adequate equivalents in Serbian, and can indicate the lower level to which the following recent anglicisms have been accepted: *buking* (25), *buzer* (25), *holder* (25), *spouksmen* (24), *bos* (23), *gik* (23), *destinacija* (22), *riseler* (22), *šoper* (22), *dressing* (21), *bekpek* (19), *frosting* (19), *bajer* (18), *rafting* (18), *brauzer* (17), *nerd* (17), *ofis* (17), *stejdž* (15), *benefit* (14), *džekpot* (14), *drajer* (13), *saund* (13), *fajl* (13), *gift* (12), *bartender* (11), *keš* (11), *printer* (10), *popkorn* (9). The fact that a response can be classified as belong-

ing to the group of hapaxes does not preclude it from being classified as another type of response as well. This is later, in merely a few instances, manifested in the results for the level of acceptability in the form a negative value.

Among the stimuli whose association field is the most heterogenous, we predominantly find words of Serbian origin and accepted anglicisms, more specifically *zanesenjak*, *radionica*, *blend*, *prodavnica*, *preprodavac*, *apstrakt*, *bedž*, *tuča*, etc., while among the stimuli whose associative field is the most homogenous, we find *popkorn*, *gotovina*, *printer*, *gift*, *pretraživač*, *saund*, *značka*, *datoteka*, *bartender*, most of which are anglicisms associated with the terms. The number of different responses is mostly influenced by meaning and frequency of use, while the origin of the word is not a decisive factor. It is possible that the aforementioned recent anglicisms are not unknown to the respondents. Even though there is a general opinion that some recent anglicisms, such as chromatic anglicisms *koral*, *kaki*, *led*, *nerc*, *terakota*, will not be accepted into the Serbian language [Dragićević 2021: 16], the recent anglicisms we studied using the associative method represent clearly defined concepts among the respondents.

Data regarding the level of acceptance of select recent anglicisms for our group of respondents, presented in scalar form, were obtained by summing up all the responses which are synonyms, antonyms, hypernyms/hyponyms, derivations, and those illustrating encyclopedic knowledge, from which we abstracted the number of unrelated and missing responses. The recent anglicisms are presented in descending order, based on their quantifiable level of acceptance: *popkorn* (96), *gift* (94), *fajl* (94), *džekpot* (92), *keš* (92), *stiker* (91), *printer* (90), *fajt* (90), *stejdž* (90), *ofis* (88), *parti* (88), *fešn* (86), *esej* (84), *saund* (84), *brauzer* (80), *komjuniti* (78), *bedž* (66), *buking* (66), *bartender* (64), *bekpek* (64), *nerd* (62), *benefit* (60), *destinacija* (57), *rafting* (52), *holder* (48), *šoper* (46), *luzer* (42), *frosting* (28), *dresing* (24), *gik* (24), *stor* (\*20), *riseler* (16), *blend* (12), *spouksmen* (8), *vorkšop* (6), *bos* (\*-20), *bajer* (\*-34), *drajer* (-34), *apstrakt* (\*-42), *buzer* (-64). The scalar representation indicates that not all of the recent anglicisms were equally adopted by the respondents, thereby proving hypothesis 4.

The asterisk indicates stimuli for which some of the responses were unrelated, as the respondents had hurried and not read/interpreted the stimulus carefully enough (*stor* and *stop*), or associated it with an English homomorph (*abstract*, *dressing*). For example, they interpreted the stimuli *apstrakt* and *bos* as adjectives (*apstraktna misao*, *golonog*, *leto*, etc.); *bajer* was confused with the name of the pharmaceutical company *Bayer* or the football club *Bayern*; *blend* was associated with the process of applying makeup; *drajer* with the noun *fen*; *dresing* was associated with the process of putting on clothes; *stor* with the traffic sign *stop*; *frosting* with the freezing process.

In descending order we cite the Serbian equivalents, as norms for comparison with the anglicisms: *gotovina* (98), *mušterija* (96), *šanker* (96), *poklon* (94), *preliv* (94), *štampač* (94), *zvuk* (94), *odredište* (92), *pozornica* (92), *rezervacija* (92), *datoteka* (90), *kokice* (90), *ranac* (90), *kupac* (88), *značka* (88), *zajednica* (86), *mešavina* (86), *nalepnica* (86), *premija* (86), *pretraživač* (86), *prodavnica* (86), *pijanica* (84), *gazda* (82), *sažetak* (82), *štreber* (82), *moda* (81), *glazura* (80), *tuča* (80), *žurka* (80), *radionica* (78), *sastav* (77), *preprodavac* (76), *sušilica* (74), *kancelarija* (72), *gubitnik* (58), *portparol* (46), *držač* (36), *korist* (26), *splavarenje* (-4), *zanesenjak* (-34).

If we were to compare the mean value of the acceptance rate calculated for select recent anglicisms (49.7) and their equivalents (76.5), whereby the higher-ranked words have

scores above the means, while the lower-ranked have scores below it, we can note different levels of acceptability. The recent anglicisms and their equivalents which have the same, i. e. a higher than average, level of acceptability within their respective groups are: *popkorn* — *kokice*, *gift* — *poklon*, *fajl* — *datoteka*, *keš* — *gotovina*, *džekpot* — *premija*, *stiker* — *nalepnica*, *printer* — *štampanje*, *stejdž* — *pozornica*, *fajt* — *tuča*, *parti* — *žurka*, *fešn* — *moda*, *esej* — *sastav*, *saund* — *zvuk*, *brauzer* — *pretraživač*, *komjuniti* — *zajednica*, *bedž* — *značka*, *buking* — *rezervacija*, *bartender* — *šanker*, *bekpek* — *ranac*, *nerd* — *štreber*, *destinacija* — *odredište*. The recent anglicisms which have a higher level of acceptability in relation to their Serbian equivalents are: *ofis* — *kancelarija*, *benefit* — *korist*, *rafting* — *splavarenje*.

The Serbian equivalents display a higher level of acceptability than their corresponding recent anglicism in the following examples: *šoper* — *mušterija*, *frosting* — *glazura*, *dresing* — *preliv*, *stor* — *prodavnica*, *blend* — *mešavina*, *vorkšop* — *radionica*, *bos* — *gazda*, *bajer* — *kupac*, *apstrakt* — *sažetak*, *buzer* — *pijanica*, and the same level of acceptability in the following examples: *holder* — *držač*, *luzer* — *gubitnik*, *gik* — *zanesenjак*, *riseler* — *preprodavac*, *spouksmen* — *portparol*, *drajer* — *sušilica*.

## Conclusion

In this study we compared the associative networks of recent nominal anglicisms with the associative networks of their Serbian equivalents. Through the dominant responses which were illustrations of encyclopedic knowledge, synonyms, or hypernyms/hyponyms we analyzed how a group of L1 Serbian speakers understand and process the studied lexical stimuli. As proposed in hypothesis 1, the analysis did provide us with partial insight into the structure of the mental lexicons of our respondents.

The responses obtained to the nominal stimuli were mostly paradigmatic, as previously determined [Dragičević 1996; 2007; 2010; Mollin 2009]. Of them, responses illustrating encyclopedic knowledge indicate that the number of activated semantic frames and/or ICMs is greater for the Serbian equivalents than the recent anglicisms. The relationship between responses which are superordinate/subordinate (whose frequency for the equivalents as stimuli is approximately 30 % greater than that of the recent anglicisms) and responses which illustrate encyclopedic knowledge indicates the existence of developed networks, whereby responses to the recent anglicisms show that they activate different, yet related parts of the knowledge network which lies at the core of the respondents' mental lexicon. We conclude that there are strong tendencies for their complete inclusion in the existing lexicon of the Serbian language. Considering the noted impact of the foreign culture, the studied recent nominal anglicisms will through different connotations over time provide their own contribution to the mental lexicon of Serbian. The aforementioned is congruent with the interpretation that recent anglicisms are not by default unnecessary in the Serbian linguistic environment, cf. [Prčić 2019; Dragičević 2021; Đurčević, Kostić 2021]. The acceptance of recent anglicisms into the lexical system of a language cannot be reduced to the criterion of necessity, and they should instead be presented in scalar form.

Based on responses in the form of superordinate and subordinate concepts, we can note that the meaning of anglicisms and their equivalents is still not perceived as completely synonymous, and that there is the possibility of the specification of meaning. The hypothesis that responses to recent anglicisms as stimuli are most frequently their Serbian equivalents (no. 2) was confirmed, which is true for 62.5 % of the analyzed anglicisms.

Still, the respondents were not equally tolerant of all 40 recent anglicisms, which confirms hypothesis 4. Upon comparing the above-average values of acceptance of the recent anglicisms (49.7) and their equivalents (76.5), the following anglicisms stand apart from their equivalents with a higher level of acceptability (*ofis, benefit, rafting*), and with an equal level of acceptability (*popkorn, gift, fajl, keš, džekpot, stiker, printer, stejdž, fajt, parti, fešn, esej, saund, brauzer, komjuniti, bedž, buking, bartender, bekkep, nerd, destinacija*).

Responses which reflect clear linguacultural elements were noted for 66.25% of the stimuli. The hypothesis that the influence of foreign culture is greatest among the recent anglicisms (no. 3) was proven, while the opposite tendency is true for the equivalents. Still, the local culture appears to have a greater influence overall.

Some of the limitations of this study have to do with the survey research design and the convenience sampling method. Specifically, the survey research design can sometimes lead to a lack of accuracy on the part of the respondents, as well as non-responses. However, considering the set aim, all responses (including omitted ones) were included in our qualitative analysis in order to provide a detailed account of the respondents' mental lexicons. Furthermore, since this is one of the pioneering studies of its kind in the L1 Serbian environment, a convenience sample was not considered inappropriate, or biased.

Future research on this topic should include statistical analyses of the various types of associative responses, to determine the possible impact of L2 proficiency levels as moderator variables. Qualitative studies should include other open class items, such as verbs and adjectives. Finally, in future studies, authors should also take into consideration the results of studies of anglicisms in a variety of European languages for a more complete linguistic image of not only South-East Europe, but all of the EU.

## Sources

Prčić et al. 2021 — Prčić T., Dražić J., Milić M., Ajdžanović M., Kovačević S.F., Kavgić O.P., Stepanov S. *Srpski rečnik novijih anglicizama*. Novi Sad: Filozofski fakultet u Novom Sadu, 2021. Available at: <https://digitalna.ff.uns.ac.rs/sadrzaj/2021/978-86-6065-636-2> (accessed: 20.09.2022). (In Serbian)

## References

- Aitchinson 2003 — Aitchinson J. *Words in the mind*. Oxford: Blackwell Publishing, 2003.
- Dragičević 1996 — Dragičević R. O pravim imeničkim i pridevskim antonimima. *Južnoslovenski filolog*. 1996, 52: 25–39.
- Dragičević 2007 — Dragičević R. *Leksikologija srpskog jezika*. Beograd: Zavod za udžbenike, 2007.
- Dragičević 2010 — Dragičević R. *Verbalne asocijacije kroz srpski jezik i kulturu*. Beograd: Društvo za srpski jezik i književnost Srbije, 2010.
- Dragičević 2021 — Dragičević R. Lapor plava i tupe siva — (ne)održivost neologizama za nijanse boja u srpskom jeziku. *Novorečje*. 2021, 3 (4): 9–18.
- Drljača-Margić 2011 — Drljača-Margić B. Leksički paralelizam: je li opravdano govoriti o nepotrebnim posuđenicama (engleskog podrijetla). *Fluminensia*. 2011, 23 (1): 53–66.
- Đorđević 2017 — Đorđević J. *Neknjiževni tekst u savremenom prevodilaštvu*. Niš: Filozofski fakultet, 2017.
- Đurčević, Kostić 2021 — Đurčević J., Kostić N. Pragmatic functions of anglicisms in the Montenegrin language. *Círculo de lingüística aplicada a la comunicación*. 2021, 86, 169–183. <https://dx.doi.org/10.5209/clac.75500>
- Evans 2009 — Evans V. *How words mean: Lexical concepts, cognitive models and meaning construction*. Oxford: Oxford University Press, 2009.
- Fillmore 1976 — Fillmore C. Frame semantics and the nature of language. *Annals of the New York Academy of Sciences: Conference on the Origin and Development of Language and Speech*. 1976, 280: 20–32.

- Fitzpatrick 2006 — Fitzpatrick T. Habits and rabbits: Word associations and the L2 lexicon. *EUROSLA Yearbook*. 2006, 6 (1): 121–145. <https://doi.org/10.1075/eurosla.6.09fit>
- Fitzpatrick 2007 — Fitzpatrick T. Word association patterns: unpacking the assumptions. *International Journal of Applied Linguistics*. 2007, 17 (3): 319–331. <https://doi.org/10.1111/j.1473-4192.2007.00172.x>
- Fitzpatrick et al. 2013 — Fitzpatrick T., Playfoot D., Wray A., Wright Margaret J. Establishing the Reliability of Word Association Data for Investigating Individual and Group Differences. *Applied Linguistics*. 2013, 36 (1): 23–50. <https://doi.org/10.1093/applin/amt020>
- Görlach 2001 — Görlach M. (ed.) *A Dictionary of European Anglicisms: A Usage Dictionary of Anglicisms in Sixteen European Languages*. Oxford: Oxford University Press, 2001.
- Hinrichs 2008 — Hinrichs U. Die slawischen Sprachen in eurolinguistischer Sicht. *Zeitschrift Für Balkanologie*. 2008, 44 (1): 36–57.
- Janić 2017 — Janić A. Asocijativni pristup leksikalizovanim imeničkim deminutivima sa sufiksom *-ica* kod studenata Srbičke. *Teme*. 2017, 41 (1): 55–70. <https://doi.org/10.22190/TEME1701055J>
- Janić, Stamenković 2022 — Janić A., Stamenković D. *Englesko-srpska kontrastivna leksikologija*. Niš: Filozofski fakultet, 2022. <https://doi.org/10.46630/eskl.2022>
- Kaltz, Meiser, Haider Munske 2020 — Kaltz B., Meiser G., Haider Munske H. (Hrsgs.) *Englisch in europäischen Sprachen*. Erlangen: FAU University Press, 2020.
- Karaulov 1993 — Karaulov Iu. N. *Associative grammar of the Russian language*. Moscow: Editorial URSS Publ., 1993. (In Russian)
- Kecskes 2019 — Kecskes I. *English as a lingua franca: The pragmatic perspective*. Cambridge: Cambridge University Press, 2019.
- Kirvalidze 2017 — Kirvalidze N. Linguo-cultural and pragmatic peculiarities of the phenomenon of anglicisation in Georgia. *Journal of Teaching and Education*. 2017, 6 (2): 287–298.
- Littlemore 2009 — Littlemore J. *Applying Cognitive Linguistics to Second Language Learning and Teaching*. Palgrave: Macmillan, 2009.
- Masalova 2017 — Masalova S. Prototypical categorization — linguocognitive form of flexible rationality. *International Journal of Cognitive Research in Science, Engineering and Education*. 2017, 2 (1): 101–104. Available at: <https://ijcrsee.com/index.php/ijcrsee/article/view/113> (accessed: 20.11.2022).
- McCarthy 1990 — McCarthy M. *Vocabulary*. Oxford: Oxford University Press, 1990.
- Meara 2009 — Meara P. *Connected words: word associations and second language vocabulary acquisition*. Amsterdam; Philadelphia: John Benjamins Publishing Company, 2009.
- Mollin 2009 — Mollin S. Combining corpus linguistic and psychological data on word co-occurrences: Corpus collocates versus word associations. *Corpus Linguistics and Linguistic Theory*. 2009, 5 (2): 175–200. <https://doi.org/10.1515/CLLT.2009.008>
- Panić-Kavgić 2006 — Panić-Kavgić O. *Koliko razumemo nove anglicizme*. Novi Sad: Zmaj, 2006. (In Serbian)
- Pantelić 2009 — Pantelić A. *Konotativno grupisanje verbalnih asocijata u zavisnosti od semantičkih karakteristika verbalnih stimulusa*, magistarska teza. Beograd, 2009.
- Prčić 2016 — Prčić T. *Semantika i pragmatika reči*. 3<sup>rd</sup> ed. Novi Sad: Filozofski fakultet u Novom Sadu, 2016. Available at: <https://digitalna.ff.uns.ac.rs/sadrzaj/2016/978-86-6065-356-9> (accessed: 20.11.2022).
- Prčić 2019 — Prčić T. *Engleski u srpskom*. 3<sup>rd</sup> ed. Novi Sad: Filozofski fakultet u Novom Sadu, 2019. Available at: <https://digitalna.ff.uns.ac.rs/sadrzaj/2019/978-86-6065-512-9> (accessed: 20.11.2022).
- Razdobudko 1995 — Razdobudko L. Stilistička analiza imenica koje označavaju delove tela čoveka (na osnovu asocijativnog eksperimenta u srpskom i ruskom jeziku). *Naučni sastanak slavista u Vukove dane*. 1995, 23 (2): 335–338.
- Ristić 2007 — Ristić S. Jezičko-gramatičke karakteristike zamenice *ja* sa aspekta verbalnih asocijacija. *Naučni sastanak slavista u Vukove dane*. 2007, 37 (1): 75–86.
- Seguin 2015 — Seguin M. Exploration of the relationship between word-association and learners' lexical development with a focus on American L1 and Croatian L2 speakers. *Explorations in English Language and Linguistics*. 2015, 3 (2): 80–101. <https://doi.org/10.1515/exell-2017-0003>
- Sharifian 2001 — Sharifian F. I Association-Interpretation: A research technique in cultural and cognitive linguistics. In: *Proceedings the 6<sup>th</sup> Annual Round Table of the Centre for Applied Language and Literacy Research*. Western Australia: Edith Cowan University, 2001.

Received: January 20, 2023

Accepted: June 16, 2023

*Александра Янич*

Университет в Нише,  
Республика Сербия, 18105, Ниш, ул. Кирилла и Мефодия, 2  
aleksandra.janic@filfak.ni.ac.rs

*Марта Величковиц*

Университет в Нише,  
Республика Сербия, 18105, Ниш, ул. Кирилла и Мефодия, 2  
marta.velickovic@filfak.ni.ac.rs

## **Ассоциативные сети некоторых современных англицизмов и их аналоги в сербском языке\***

**Для цитирования:** Janić A. A., Veličković M. V. The association networks of select recent nominal anglicisms and their Serbian language equivalents. *Вестник Санкт-Петербургского университета. Язык и литература*. 2023, 20 (4): 888–905. <https://doi.org/10.21638/spbu09.2023.413>

Целью данной работы является сравнение ассоциативных сетей современных англицизмов имен существительных и их устоявшихся аналогов в сербском языке на материале опроса 100 студентов-филологов с помощью теста речевых ассоциаций на 40 пар современных англицизмов и их устоявшихся аналогов. Результаты качественного и количественного анализа ответов указывают на активацию разных, но взаимосвязанных частей ментального лексикона сербского и английского языков. Путем анализа энциклопедического знания респондентов установлено, что количество семантических рамок и идеализированных когнитивных моделей более выражено у сербских аналогов. Кроме того, в результате исследования мы пришли к выводу о том, что существует устойчивая тенденция к полному принятию анализируемых англицизмов в лексикон сербского языка, что сербские аналоги являются наиболее распространенными ответами на более современные англицизмы (62,5%), а также что ответы, обладающие лингвокультурологическими характеристиками (66,25% всех стимулов), показывают более высокое влияние родной культуры. В общей сложности носители сербского языка не приняли все 40 англицизмов в одинаковой степени (расчетный уровень принятия составляет 49,7%) по сравнению с их аналогами, уровень приемлемости которых рассматривался в качестве нормы (расчетный уровень принятия 76,5%). Уровень приспособленности англицизмов к лексической системе сербского языка нельзя сводить только к критерию необходимости, поэтому мы предлагаем использовать скалярное представление современных англицизмов в дальнейших исследованиях.

*Ключевые слова:* речевые ассоциации, ассоциативные сети, семантические отношения, англицизмы имен существительных, сербский язык, носители сербского языка.

Статья поступила в редакцию 20 января 2023 г.

Рекомендована в печать 16 июня 2023 г.

---

\* Исследование финансируется Научным фондом Республики Сербия «Структурирование создания концепций: метафора, аналогия и схематизм — СХЕМЫ» (грант № 7715934) при поддержке Министерства науки, технологического развития и инноваций Республики Сербии (Договор № 451-03-47/2023-01/200165).