

# The Influence of Grammatical Gender on the Sequence of Near-synonyms in Serbian Dictionaries in Contrast to English Thesauri

Dragana Čarapić, *Faculty of Philology, University of Montenegro, Nikšić, Montenegro (draganac@ucg.ac.me)*

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**Abstract:** It has been noticed that Serbian dictionaries of synonyms do not provide a clear insight into the lexical relations among the words bearing similar meaning (Prčić 2010). Therefore, we have devised the multi-faceted approach to the research which incorporates the collocational, componential, and contrastive analysis of the descriptive adjectives *hrabar*, *-a*, *-o*, in Serbian, and its English counterpart *brave*. Specific emphasis has been given to the presence of grammatical gender (masculine, feminine, neuter) in Serbian in contrast to natural gender in English. Electronic databases and electronic corpora are used for the analysis of the most frequent collocational framework of the chosen samples. The results of the research employed illustrate how semantic (and grammatical) aspects of words are reflected onto and within their collocational range indicating idiomatic meaning of the adjectives analysed in both languages. Furthermore, the analysis applied has shown that the most frequent collocations of the adjective *hrabar*, *-a*, *-o*, have varied depending on the grammatical gender implied (masculine, feminine, neuter), as well as the sequence of its near-synonyms. The same changes have not occurred in English due to its lack of grammatical gender.

**Keywords:** NEAR-SYNONYMS, DESCRIPTIVE ADJECTIVES, COLLOCATIONAL ANALYSIS, COMPONENTIAL ANALYSIS, CONTRASTIVE ANALYSIS

**Opsomming:** Die invloed van grammatikale gender op die opeenvolging van ampersinonieme in Serwiese woordeboeke in teenstelling met Engelse tesourusse. Daar is opgemerk dat Serwiese sinoniemwoordeboeke nie 'n duidelike insig verskaf in die leksikale verwantskappe tussen die woorde wat soortgelyke betekenis dra nie (Prčić 2010). Daarom het ons die veelvlakkige benadering tot die navorsing gevolg wat die kollokasionele, komponensiele, en kontrastiewe analise van die deskriptiewe adjektiewe *hrabar*, *-a*, *-o*, in Serwies, en die Engelse ekwivalent daarvan, *brave*, inkorporeer. Spesifieke klem is geplaas op die aanwesigheid van grammatikale gender (manlik, vroulik, onsydig) in Serwies in teenstelling met natuurlike gender in Engels. Elektroniese databasisse en elektroniese korpora word vir die analise van die mees frekwente kollokasionele raamwerk van die gekose voorbeelde gebruik. Die resultate van die navorsing wat gedoen is, illustreer hoe semantiese (en grammatikale) aspekte van woorde op en binne hul kollokasionele reeks gereflekteer word wat dui op die idiomatiese betekenis van die adjektiewe wat in albei tale geanaliseer is. Verder het die analise wat uitgevoer is, getoon dat die

mees frekwente kollokasies van die adjektief *hrabar*, *-a*, *-o*, weens die geïmpliseerde grammatikale gender (manlik, vroulik, onsydig), asook die opeenvolging van die ampersinonieme, gevarieer het. As gevolg van die afwesigheid van grammatikale gender het soortgelyke veranderings nie in Engels voorgekom nie.

**Sleutelwoorde:** AMPERSINONIEME, DESKRIPTIEWE ADJEKTIEWE, KOLLOKASIONELE ANALISE, KOMPONENSIËLE ANALISE, KONTRASTIEWE ANALISE

## 1. Introduction

The aim of this paper is to provide a multi-faceted method to analysing the proximity of meaning among near-synonyms in Serbian and English dictionaries. Presently, in Serbian and English dictionaries synonyms are listed either randomly or alphabetically without pointing out proximity of meaning among near-synonyms. Moreover, only adjectives in masculine gender are stated in Serbian dictionaries of synonyms and there is no insight into the specific semantic features of adjectives in female and neuter gender.<sup>1</sup> Therefore, we have applied a specific approach to deal with the lack of nuances in meaning among synonyms in two Serbian dictionaries, namely *Rečnik sinonima i tezaurus srpskog jezika* compiled by Pavle Ćosić and *Sinonimi i srodne reči srpskohrvatskoga jezika* compiled by Miodrag Lalević. The semantic analysis employed in this paper comprises the most frequent collocational range for the selected descriptive adjectives *hrabar*, *-a*, *o* in Serbian and *brave* in English and samples of their near-synonyms were proposed. The results of the research confirm previous findings that the semantic (and grammatical) aspects of a word are reflected in their most frequent collocational range (Harris (1954), Stubbs (2001), Sinclair (2004), Gries and Stefanowitsch (2004), Hoey (2005), Xiao and McEnery (2006), Turney and Pantel (2010), Liu (2020)).

The first dictionaries of synonyms emerged at the outset of the 17th century (Petrović 2005: 65). Those were the dictionaries of Latin synonyms. In the 18th century dictionaries of French, German, English and Spanish synonyms were published, and in the 19th century Nikola Tomasseo compiled the first Italian dictionary of synonyms which can still be found in bookshops today. In this century the first Danish, Dutch and Swedish dictionaries of synonyms appeared. Petrović (2005: 68) suggests that there have been no crucial advances in the area of the lexicography on synonymy. The first dictionary of synonyms of the Serbian language *Sinonimi i srodne reči srpskohrvatskog jezika* was compiled by Lalević in 1974. The photo type edition of this dictionary was published in 2004 (see Dragičević 2010). Petrović (2005: 73-83) acknowledges a difference between differential and cumulative dictionaries. Differential dictionaries of synonyms are characterized by stating the nuances in meaning among the synonyms. In this type of dictionary, an orderly cluster of synonyms is placed next to the node word which in certain cases may be set out in alphabetical order and in some cases is set out based on their proximity of meaning. On the other hand, a

cumulative dictionary contains its node word, the orderly cluster of synonyms that it belongs to as well as examples of its use. The differences in meaning among synonyms are not explained (Dragičević 2010: 261).

The lack of clear insight into the nuances in meaning among the near-synonyms renders impositions in other linguistic areas such as translation, especially when we need to decide whether a certain lexeme can be translated by a greater number of its synonymous equivalents. Bearing in mind all these issues, we can realize why certain European languages, such as Croatian, saw its first dictionary of synonyms published as late as 2008. A similar situation occurred in the Serbian language, with the latest dictionary of synonyms published in the same year, 2008, as a new supplemented edition when compared to the one compiled by M. Lalević in 1974. Further to the aforementioned data, the following quotes account for the delay in the compilation of the dictionary of Croatian synonyms:

One of the possible reasons of the delayed publishing of the Thesaurus could stem out of lack of agreement among the Croatian linguists what could be considered under the very notion of synonymy. There are a few theoretical definitions of synonyms in research papers of the linguists, what is the least expected occurrence due to the complexity of this issue (Opašić 2010: 165).

The lexicographic relevance of our research study lies in proposing a specific method of presenting near-synonymous samples of descriptive adjectives in the future Serbian and English dictionaries of synonyms. The method was devised in an attempt to delineate fine boundaries in meaning among near-synonyms of the node word. A detailed account of the method applied and its results will be given in the subsequent sections of the paper.

## 2. Theoretical background

Lexicographical compilations of synonyms in the 18th century contained explanations related to the meaning of words and their nuances in meaning. Nevertheless, Miller and Charles (1991) noticed that the definitions of those words were so close in meaning that the words were frequently mixed and interchanged, e.g., *austerity*, *severity* and *rigour*. However, in these examples the existence of any absolute synonyms cannot be noticed, but relations among them would be rather defined as: "similarity of meaning", "semantic differential" and "semantic similarity". Introducing such expressions enhanced synonymy analysis as a constant variable, within which identity of meaning is defined through grading of meaning (Miller and Charles 1991).

Following the same approach to lexical semantics' analysis, Edmonds (Edmonds and Hirst 2002) concludes that synonymy relies on grading as the main issue underlining definitions of words and their slight differences in meaning, while investigating machine translation and having dealt with the near-synonymy analysis based on computer and corpus linguistics, e.g., if *fir*

and *pine* can be defined as words denoting *coniferous trees*, in such case they can be considered absolute synonyms. Constant recognition of near-synonyms depends on the principle of meaning level, above which all words listed, are considered not to be synonyms, and on the opposite side of the same level near-synonyms can be found. Edmonds (Edmonds and Hirst 2002) suggests a model of lexical meaning, which consists of three levels:

- the ultimate level which includes a specific concept, converging with clusters of near-synonyms which, at the same time, belong to a different level. The concept contains essential content which is shared among all near-synonyms;
- at the second level near-synonyms differ in their semantic, stylistic and expressive features;
- whereas at the third level syntactic characteristics can be recognized.

Edmonds (Edmonds and Hirst 2002) shares the same opinion as Hirst (Edmonds and Hirst 2002) who states that the ultimate level can operationally be identified as the level highly dependent on a language: a concept which is lexicalized within different languages must be an ultimate concept. However, near synonymy is an increasingly changeable category in all languages. For example, an ultimate concept, known as a *generic mistake* is connected with an inconsistent cluster of near-synonyms in different languages: English *error, blunder, slip, mistake, lapse, howler* and so on; French *faute, erreur, faux, pas, bévue, bêtise, bavure, imapir*, and so on.; and German *Irrtum, Fehler, Mißgriff, Versehen, Schützer*, and so on.

Therefore, synonymy can be construed as the highest level of mutual substitution, without any crucial changes in the meaning of a certain statement within a context (Miller and Charles 1991; Miller 1999), by which the phenomenon of synonymy can be characterised as near-synonymy (or plesynonyms), which can be described as "contextually defined synonyms" (Miller 1999: 24).

By the application of lexical choices among semantically similar words, especially near-synonyms, in a theoretical approach which is based on computer linguistics, Edmonds and Hirst (2002) suggested at least three levels of meaning complexity, as follows:

- (1) The Conceptual-semantic level;
- (2) The Subconceptual/stylistic-semantic level;
- (3) The Syntactic-semantic level.

All these levels are in accordance with far more detailed accounts of meaning, known as the granularity of word meaning (Edmonds and Hirst 2002: 117-124).

Divjak and Gries (2006) show how the internal structure of a group of near-synonyms can be revealed. Second, they deal with the problem of distinguishing the sub-clusters and the words in those sub-clusters from each other. Finally, they illustrate how these results identify the semantic properties that should be mentioned in lexicographic entries. They illustrate their methodol-

ogy with a case study on nine near-synonymous Russian verbs that, in combination with an infinitive, express *try*. Their approach is corpus-linguistic and quantitative. Assuming a strong correlation between semantic and distributional properties, Divjak and Gries (2006) analyse 1,585 occurrences of these verbs taken from the Amsterdam Corpus and the Russian National Corpus, supplemented where necessary with data from the Web. They code each particular instance in terms of 87 variables (ID tags), i.e., morphosyntactic, syntactic and semantic characteristics that form a verb's behavioural profile (BP). Liu (2010, 2013) and Liu and Espino (2012) have conducted BP (behavioural profile) studies on English synonymous adjectives, nouns, and adverbs by focusing on key co-occurrences instead of all the contextual distribution patterns (Liu 2010: 80).

Inkpen and Hirst (2006) and Phoocharoensil (2020) support the idea that collocational patterns within structural variation can be an indicator for distinguishing near-synonyms. A collocation is defined as a co-occurrence of certain words (O'Dell and McCarthy 2008; Lewis 2000). In terms of collocational preference, near synonymous words may co-occur with different collocations from each other according to collocational restrictions (Palmer 1981). Edmonds and Hirst (2002) provide examples of the differences in collocational patterns of the synonym *task* and *job* in which one can *face a daunting task* but not *a daunting job*. This concept of collocational patterns is related to other criterion used to differentiate near-synonyms, namely semantic preference. While collocational patterns concern lexical restriction, the word's occurrence is defined within the semantic environment (Flowerdew 2012). For example, Edmonds and Hirst (2002) mention that the synonymous verbs *die* and *pass away* have a different semantic preference in which *pass away* is only used with people not with animals or plants.

There are a number of studies on synonym differentiation investigating their semantic preference based on data drawn from language corpora, e.g., the British National Corpus (BNC) or the Corpus of Contemporary American English (COCA). In these studies near-synonyms have been differentiated by examining their distribution across genre, collocations, and semantic preference within different parts of speech:

- nouns (Jirananthiporn (2018), Phoocharoensil (2020), Jarunwaraphan and Mallikamas (2020), Sumonsriworakun (2022));
- verbs (Gu (2017), Song (2021), Phoocharoensil (2021), Kruawong and Phoocharoensil (2022))
- adverbs (Desagulier (2014) Yang (2020), Stoyanova-Georgieva (2020) and Tao (2021));
- adjectives (Cai (2012), Crawford and Csomay (2016), Petcharat and Phoocharoensil (2017), Kamiński (2017), Sayyed and Al-Khanji (2019), Selmistraitis (2020) and Thongpan (2022).

In the collocational analysis of selected adjectives Cai (2012) examined the synonyms *awesome*, *excellent*, *fabulous*, *fantastic*, *great*, *terrific*, and *wonderful*

based on the data drawn from COCA. The results of the study revealed that the most frequently occurring word is *great* which was also reported to be more general. Moreover, regarding the frequency distribution across genres, it was found that *fabulous*, *fantastic*, *great*, *terrific*, and *wonderful* occur more in the spoken genre, while *awesome* and *excellent* are prevailing in magazines. Collocation was also the major criterion used in distinguishing two adjective synonyms *equal* and *identical* in a study by Crawford and Csomay (2016). Generally, it was shown that both synonyms are interchangeable in certain contexts; however, in an analysis of collocations derived from COCA, different collocational behaviour was revealed in that there is more likelihood of abstract concepts such as *opportunities*, *rights*, and *protection* accompanying *equal*, and concrete nouns such as *twins*, *copies*, and *houses* co-occurring with *identical*. Such an observation is only possible by referencing large amounts of texts through corpus data, as it allows linguists and language researchers to access language use in authentic contexts.

Petcharat and Phoocharoensil (2017) examined three synonymous adjectives *appropriate*, *proper* and *suitable* based on their meaning, collocations, formality and grammatical patterns. The data were collected from three dictionaries, namely the *Longman Dictionary of Contemporary English* 6th edition (2014), *Longman Advanced American Dictionary* 3rd edition (2013), and *Macmillan Collocations Dictionary* (2010) and COCA. It was found that even though *appropriate*, *proper* and *suitable* shared the same core meaning, they differed in detailed meanings in which *suitable* tends to be used more with person. In addition, *appropriate* occurred more in formal context than *suitable* and *proper*. Moreover, by examining collocations and grammatical patterns, it was found that they shared only a small number of collocations and grammatical patterns in which they occur. This indicated that the three synonymous adjectives are not absolute synonyms as they cannot be used interchangeably in the same context. Kamiński (2017) explores the potential usefulness of two techniques that visualise collocational preference for the purpose of synonym discrimination. Given the fact that collocation is one of the most important markers of meaning difference, it is used as the criterion for distinguishing between near-synonyms. Collocational preferences for a set of near-synonyms (*artificial*, *fake*, *false*, and *synthetic*) were visualised using two techniques: correspondence analysis plot and collocational network. The collocations were retrieved from BNC corpus by using a distributional method. An advantage of the graphs is that they allow lexicographers to spot similarities and differences in collocational preference of several words in a single diagram. Sayyed and Al-Khanji (2019) investigated the similarities and differences that exist between *afraid*, *scared*, *frightened*, *terrified*, *startled*, *fearful*, *horrified* and *petrified*. Specifically, they compared and contrasted the words in terms of dialectal differences, frequency of occurrence, distribution in different genres and core meanings. The findings have shown that nearly all adjectives appear to be mostly used in fiction and spoken genres. Furthermore, the results also unveiled that both the Americans and the British tend to avoid

using such adjectives of fear in academic contexts. In a more recent study, Selmistraitis (2020) examined semantic preference among three pairs of synonymous adjectives, namely *succinct* and *concise*, *coherent* and *cohesive*, and *precise* and *accurate* in the academic texts of COCA and found that *succinct* and *concise* are more similar in semantic preference than other two pairs of synonyms.

Thongpan (2022) analyses the similarities and differences between the three synonymous adjectives *far*, *distant*, and *remote*, concentrating on the degree of formality in their distribution across eight genres, as well as their collocations with the semantic preference combination. The data for this study was drawn from COCA. The results revealed that the word *remote* has the most formal degree, followed by *distant* and *far*, respectively, since it is most commonly used in academic texts. In terms of collocations and semantic preference, the data pointed out that the three synonyms share only a few collocates and, as a result, they vary in semantic preference.

Investigating possibilities of determining proximity in meaning among near-synonyms, various scholars have proposed specific methods of quantifying near-synonymy relations among selected words. Cappelli (2011) presented a cluster analysis approach to quantify near-synonymy relations and compare non-parametric and parametric methods. The first approach is model free since it does not assume an underlying model of lexical knowledge but it uncovers the group structure in the set of near synonyms of a target word by comparing the list of synonyms of the given entry with those of its near synonyms as contained in available thesauri. Then, in order to validate the results provided by the cluster analysis, a statistical model is introduced for analyzing human judgments of perceived degree of synonymy, also by a relationship with the subjects' characteristics. Piits (2013) carried out a comparative study on words for *human beings* and their Estonian collocates. The study was inspired by the distributional hypothesis by Zellig Harris (1957), which states that words occurring in similar contexts tend to have a similar meaning. The word *collocate* is used in a neo-Firthian sense, covering all the words that co-occur with the node word the most often. The comparison involved the 30 most frequent collocates for each node word. Assuming that a bigger number of shared collocates means a greater semantic closeness, intersections of collocates of the Estonian words for 'human being' were computed. It turned out that antonymous words had the highest number of collocates in common, which indicates that syntagmatic relations of words may also reflect some of their paradigmatic relations. As antonymy is interpreted as a similarity relation (which is quite natural considering that the opposite value applies to just one semantic component out of several), Piits (2013: 157) agreed with Harris (1957) that similarity between words is manifested in their contextual coincidence. Fachrutdinov, Khisamova and Khisamatullina (2017) conducted a comparative analysis of semantic distinctions between synonymous adjectives in Tatar and English. Herda (2020) contrasted the near-synonymous Polish classifiers *kupa* 'heap', *sterta* 'pile', and *stos*

'stack', all of which encode upward-oriented arrangements of objects or substances and thus prototypically combine with concrete inanimate nouns, by means of a collocational analysis conducted on naturally-occurring data derived from the National Corpus of Polish. As part of a larger research project on expert assessment of synonymic rows in RuWordNet thesaurus, Gimaletdinova, Khalitova, Solovyev and Bochkarev (2021) pointed out that the problem of determining semantic similarity between words affects the understanding of synonymy and creates obstacles to the work of lexicographers.

In the present study we have analysed descriptive adjectives *hrabar*, *-a*, *-o* in Serbian and *brave* in English within their most frequent collocational framework using different corpora: Corpus of the Contemporary Serbian language, Faculty of Mathematics and Natural Sciences, University of Belgrade, SrWac (Serbian Web), the British National Corpus (BNC) and ukWac (British Web). The results of the collocational analysis of these adjectives were the basis for proposing their near-synonymy samples while investigating their proximity in meaning. We have noticed that grammatical gender influences the sequence of near-synonymy samples in Serbian, but not in English. The approach to the lexical-semantic analysis employed in this paper relies on the idea of the granularity of word meaning applying corpus analysis. This idea is relevant to the present study because it explains the nature of the complexity of near-synonymy as a lexical relation. It points to the way in which near-synonymy affects the structure of the lexicon and lexicographic representation as both fine-grained aspects of near-synonymous adjectives and their collocational patterns are significant for discerning their subtle nuances in meaning.

### 3. Methodology of the research

The starting hypothesis of this paper rests on the agreement among the majority of semanticists that absolute synonymy is rare, while in the opinion of certain linguists it is in fact non-existent (Quine (1951); Palmer (1981: 59)). In the opinion of philosophers such as Quine (1951) and Goodman (1952) absolute synonymy is impossible, though it may be limited to mostly technical terms (distichous, two-ranked; groundhog, woodchuck) (Hirst 1995: 51). Cruse (1986: 270) claims that "natural languages abhor absolute synonyms just as nature abhors vacuum," as the meanings of words are constantly changing.

The multi-faceted approach applied in this paper features the use of the collocational approach to lexical analysis and componential analysis (Nida (1975); Bendix (1996); Zhang (2002)) of the collocates of the extracted descriptive adjectives, and as the final step of the research, applying contrastive analysis.

The results of the analysis should prove another hypothesis, namely that the collocational framework is a better generator of the precise meaning of a word than can be inferred through its denotation. These results will indicate findings that the semantic (and grammatical) aspects of words are reflected



onto and within their own collocational framework. It is expected that the collocational framework (the most frequent collocates) of the adjective *hrabar*, *-a*, *-o* in Serbian will change depending on the grammatical gender implied (masculine, feminine, neuter), as well as the sequence of its near-synonyms. It is claimed that there are inflectional selectional differences among synonyms in a morphologically rich language such as Serbian. The same changes are not expected in the English language due to its lack of grammatical gender.

Componential analysis is carried out to show that the denotational meaning of the lexemes is not enough to illustrate the comprehensive scale of the meaning of lexemes analysed within context. In dictionaries of synonyms mentioned earlier in this paper, mainly the denotational meaning of the lexemes is presented. It is essential to point out how much denotational meaning is insufficient and how much other aspects of the meaning of the lexeme are dependent upon the collocational range.

Consequently, componential analysis has been applied to look for the semantic features of the descriptive adjectives analysed within their most frequent collocational framework. This approach appears very similar to the profile-based usage-feature analysis (Geeraerts et al. (1994), Gries (2006), Arppe (2008), Divjak (2010), Glynn (2014)).

Certain authors, like Taylor (1991), have a very negative attitude towards componential analysis, which they consider an outdated and obsolete method. In contrast, Geeraerts (2010: 4) claims that: "there can be no semantic description without some sort of decompositional analysis".

The process of contrasting (or analysing) presupposes the comparison of nominal collocates of descriptive adjectives. For the analysis of synonyms within the most frequent collocational framework, electronic dictionaries and electronic databases, such as the corpus of the Contemporary Serbian language, Faculty of Mathematics and Natural Sciences, University of Belgrade, SrWac (Serbian Web), the British National Corpus (BNC), and ukWac (British Web), are used.

#### 4. Analysis

In the analysis undertaken we have applied a collocational method aiming at determining the proximity of meaning among the samples of near synonyms. First, we extracted the most frequent collocations of the node word *hrabar*, *-a*, *-o*. We then have selected the first 10/15 synonyms of the adjective *hrabar*, *-a*, *-o* from the *Dictionary of synonyms* by Pavle Čosić and his assistants (2008) (see Addendum 1). In the next phase of analysis we analysed co-occurrences of the extracted samples of synonyms within the most frequent collocational framework of the adjective *hrabar* while using the SrWac Corpus (554.627.647 tokens) (see Addendum 2). The co-occurrences and concordance of the near synonymy samples within the most frequent collocational framework of the node word implied the proximity of meaning of near-synonyms to the node word.

#### 4.1 The analysis of the descriptive adjectives *hrabar*, *-a*, *-o* and their near-synonyms in Serbian

After analyzing the first ten synonyms<sup>2</sup> (extracted from the dictionary of synonyms: *Rečnik sinonima*, Pavle Ćosić et al. (2008: 293)) through their co-occurrences within the most frequent nominal collocations of the node word *hrabar* *~čovek* (eng. *man*), *~potez* (eng. *move*), *~korak* (eng. *step*), *~čin* (eng. *act*)<sup>3</sup> the following four synonyms can be considered to be near-synonyms of the descriptive adjective *hrabar*, *-a*, *-o* (eng. *brave*): *herojski* (eng. *heroic*), *odvažan* (eng. *bold*), *junački* (eng. *stout*), *smeo* (eng. *courageous*), (*Rečnik sinonima*, Pavle Ćosić i saradnici 2008: 659).

**Table 1:** Near-synonymy samples of the adjective *hrabar*

| The most frequent four collocates of the descriptive adjective <i>hrabar</i> analysed in corpus data of the Contemporary Serbian language of the Faculty of Mathematics in Belgrade |   |               |               |               |   |
|---|---|---------------|---------------|---------------|---|
|   | <i>Čovek</i>  | <i>Potez</i>  | <i>Korak</i>  | <i>Čin</i>    |   |
| <b>Descriptive adjective</b>  | Concordance number of the collocates analysed on the srWaC corpus |               |               |               | Total number of concordances for the given examples |
| <i>Hrabar</i>   | 567   | 224           | 88            | 43            | 922   |
| <i>(tokens per million words)</i>   | <i>(1.02)</i>   | <i>(0.40)</i> | <i>(0.16)</i> | <i>(0.08)</i> | <i>(1.66)</i>                                       |
| <b>Near-synonymy samples of the adjective <i>hrabar</i></b>   |   |               |               |               |   |
| <i>Herojski</i>   | 6   | /             | 23            | 108           | 137   |
| <i>Odvažan</i>  | 6   | 43            | 11            | 2             | 62  |
| <i>Smeo</i>   | 15  | 38            | 32            | 3             | 78  |
| <i>Junački</i>  | 2   | 7             | 26            | 9             | 44  |

In the second stage of the research, frequency analysis of the four most recurrent collocates of the adjective *hrabar* (*~potez* (eng. *move*), *~čovek* (eng. *man*), *~korak* (eng. *step*), *~čin* (eng. *act*)) was carried out within the collocational framework of the suggested near synonyms (*herojski*, *odvažan*, *smeo*, *junački*) (see Table 1).

Having examined the results, we can conclude that the near synonyms of the adjective *hrabar* are: *herojski* (137) *smeo* (78), *odvažan* (62), *junački* (44) (srWaC corpus, taken on July 28, 2022).

**Table 2:** Near-synonymy samples of the adjective *hrabra*

| The most frequent four collocates of the descriptive adjective <i>hrabra</i> analysed on corpus data of the Contemporary Serbian language of the Faculty of Mathematics in Belgrade |   |               |                |              |   |
|---|---|---------------|----------------|--------------|---|
|   | <i>Žena</i>   | <i>Odluka</i> | <i>Devojka</i> | <i>Igra</i>  |   |
| <b>Descriptive adjective</b>  | Concordance number of the collocates analysed on the srWaC corpus |               |                |              | Total number of concordances for the given examples |
| <i>Hrabra</i><br>(tokens per million words)   | 107<br>(0.19)   | 39<br>(0.07)  | 22<br>(0.04)   | 18<br>(0.03) | 186<br>(0.33)                                       |
| <b>Near-synonymy samples of the adjective <i>hrabra</i></b>   |   |               |                |              |   |
| <i>Herojska</i>   | /   | 13            | /              | 3            | 17  |
| <i>Odvažna</i>  | 10  | 1             | 1              | 2            | 14  |
| <i>Smela</i>  | 12  | 4             | 2              | 1            | 20  |
| <i>Junačka</i>  | 1   | /             | 2              | 1            | 4   |

The third stage of the research includes frequency analysis of the four most recurrent collocates of the adjective *hrabra* (~*žena* (eng. *woman*), ~*odluka* (eng. *decision*), ~*devojka* (eng. *girl*), ~*igra* (eng. *play*)) within the collocational framework of the suggested near synonyms (*herojska*, *odvažna*, *smela*, *junačka*) (see Table 2). The results of the analysis suggest that the near synonyms of the adjective *hrabra* are: *smela* (20), *herojska* (17), *odvažna* (14), *junačka* (4) (srWaC corpus, taken on July 28, 2022) (see Table 2).

The final stage of the research involves frequency analysis of the four most recurrent collocates of the adjective *hrabro* (~*srce* (eng. *heart*), ~*suočavanje* (eng. *confrontation*), ~*novinarstvo* (eng. *journalism*), *svedočanstvo* (eng. *testimony*)) within the collocational framework of the suggested near-synonyms (*herojsko*, *odvažno*, *smelo*, *junačko*) (see Table 3). The results of the analysis suggest that the near synonyms of the adjective *hrabro* are: *herojsko* (20), *junačko* (18), *odvažno* (7), *smelo* (5) (srWaC corpus taken on July 28, 2022).

**Table 3:** Near-synonymy samples of the adjective *hrabro*

| The most frequent four collocates of the descriptive adjective <i>hrabar</i> analysed in corpus data of the Contemporary Serbian language of the Faculty of Mathematics in Belgrade |   |                   |                    |                     |   |
|---|---|-------------------|--------------------|---------------------|---|
|   | <i>Srce</i>   | <i>Suočavanje</i> | <i>Novinarstvo</i> | <i>Svedočanstvo</i> |   |
| <b>Descriptive adjective</b>  | Concordance number of the collocates analysed on the srWaC corpus |                   |                    |                     | Total number of concordances for the given examples |
| <i>Hrabro</i><br>(tokens per million words)   | 104<br>(0.19)   | 26<br>(0.04)      | 13<br>(0.03)       | 7<br>(0.01)         | 150<br>(0.27)                                       |
| <b>Near-synonymy samples of the adjective <i>hrabro</i></b>   |   |                   |                    |                     |   |
| <i>Herojsko</i>   | 16  | /                 | 1                  | 3                   | 20  |
| <i>Ođvažno</i>  | 1   | 2                 | 4                  | /                   | 7   |
| <i>Smelo</i>  | 2   | 1                 | 1                  | 1                   | 5   |
| <i>Junčko</i>   | 15  | 3                 | /                  | /                   | 18  |

#### 4.2 The analysis of adjective *brave* and its near synonyms in English

The most frequent collocations of the node word *brave* were extracted from the corpus data of the website [www.just-the-word.com](http://www.just-the-word.com). In the next phase of analysis we analysed co-occurrences of the extracted samples of synonyms within the most frequent collocational framework of the adjective *brave* while using the ukWac Corpus (2.135.658.231 tokens).

A frequency analysis of the four most recurrent collocates of the adjective *brave* (*man, face, attempt, fight*) was carried out within the collocational framework of the suggested near synonyms (*courageous, bold, fearless, dauntless*) (see Table 4). The results of the analysis suggest that the near synonyms of the adjective *brave* are: *bold* (326), *courageous* (176), *fearless* (26), *dauntless* (4) (ukWac corpus, taken on July 28, 2022).

**Table 4:** Near-synonymy samples of the adjective *brave*

| The most frequent four collocates of the descriptive adjective <i>brave</i> analysed on the corpus data of the following website: <a href="http://www.just-the-word.com">www.just-the-word.com</a> |   |               |                |               |   |
|--|---|---------------|----------------|---------------|---|
|  | <i>Man</i>  | <i>Face</i>   | <i>Attempt</i> | <i>Fight</i>  |   |
| <b>Descriptive adjective</b>   | Concordance number of the collocates analysed on the srWaC corpus |               |                |               | Total number of concordances for the given examples |
| <i>Brave</i><br>(tokens per million words)   | 1.222<br>(0.57)   | 379<br>(0.18) | 278<br>(0.13)  | 146<br>(0.07) | 2.025<br>(0.95)                                     |
| <b>Near-synonymy samples of the adjective <i>brave</i></b>   |   |               |                |               |   |
| <i>Courageous</i>  | 115   | 1             | 27             | 33            | 176   |
| <i>Bold</i>  | 56  | 129           | 141            | /             | 326   |
| <i>Fearless</i>  | 19  | 4             | 1              | 2             | 26  |
| <i>Dauntless</i>   | 2   | /             | 1              | 1             | 4   |

### 5. Contrastive analysis<sup>4</sup>

In the process of contrastive analysis application the semantic features of the adjective *hrabar*, *-a*, *-o* and its near-synonyms *herojski* (eng. *heroic*), *odvažan* (eng. *audacious*), *smeo* (eng. *bold*), *junački* (eng. *stout*) have been compared according to the frequency of their appearance with their most recurrent collocates ((~*potez*, ~*čovek*, ~*korak*, ~*čin*, ~*žena* (eng. *woman*), ~*odluka* (eng. *decision*), ~*devojka* (eng. *girl*), ~*igra* (eng. *play*), (~*srce* (eng. *heart*), ~*suočavanje* (eng. *confrontation*), ~*novinarstvo* (eng. *journalism*), *svedočanstvo* (eng. *testimony*)).

The most frequent semantic features of the adjective *hrabar*, *-a*, *-o* in Serbian and the adjective *brave* in English, as well as their near synonyms analysed in the range of their most frequent collocates are as follows:

- (a) the most frequent semantic components of the adjective *hrabar* and its near synonyms (*herojski* (eng. *heroic*), *odvažan* (eng. *audacious*), *smeo* (eng. *bold*),

*junački* (eng. *stout*) analysed in the following collocational framework (~*potez*, ~*čovjek*, ~*korak*, ~*čin*):

[+MALE±ANIMATE±ADULT]

[+KURAŽAN+NEPOKOLEBLJIV+VITEŠKI] 4: Eng. [+COURAGEOUS+UNDAUNTED+CHIVALROUS]

- (b) the most frequent semantic components of the adjective *hrabra* and its near synonyms (*herojska*, *odvažna*, *smela*, *junačka*) analysed within the given collocational framework (~*žena* (eng. *woman*), ~*odluka* (eng. *decision*), ~*devojka* (eng. *girl*), ~*igra* (eng. *play*)):

[-MALE±ANIMATE±ADULT]

[+SRČANA+KURAŽNA+NEUSTRAŠIVA] 5: Eng. [+BOLD+COURAGEOUS+DAUNTLESS]

- (c) the most frequent semantic components of the adjective *hrabro* and their near synonyms (*herojsko*, *odvažno*, *smelo*, *junačko*) analysed in the range of the following collocates (~*srce* (eng. *heart*), ~*suočavanje* (eng. *confrontation*), ~*novinarstvo* (eng. *journalism*), ~*svedočanstvo* (eng. *testimony*)):

[±MALE±ANIMATE±ADULT]

[+NEUSTRAŠIVO+NEPOKOLEBLJIVO+VITEŠKO] 10: Eng. [+DAUNTLESS+UNDAUNTED+CHIVALROUS]

- (d) the most frequent semantic components of the adjective *brave* and their near synonyms (*courageous*, *bold*, *fearless*, *dauntless*) analysed in the following collocational framework: (*man*, *face*, *attempt*, *fight*):

[-MALE±ANIMATE±ADULT]

[+NEUSTRAŠIV+SRČAN+NEPOKOLEBLJIV] 8: Eng. [+DAUNTLESS+UNDAUNTED+CHIVALROUS]

The most frequent semantic components of the adjective *hrabar*, *-a*, *-o* in Serbian and the adjective *brave* in English are as follows:

[-MALE±ANIMATE±ADULT]

[+NEUSTRAŠIV+SRČAN+NEPOKOLEBLJIV]: Eng.  
[+DAUNTLESS+BOLD+UNDAUNTED]

In the next stage of our analysis the frequency of use of the descriptive adjective *hrabar*, *-a*, *-o* was analysed within the collocational framework of the descriptive adjective *brave* (its English counterparts) (see Table 5).

**Table 5:** The frequency of use of the descriptive adjective *hrabar*, *-a*, *-o* within the collocational framework of the descriptive adjective *brave* (its English counterparts)

| COLLOCATES OF THE<br>DESCRIPTIVE ADJECTIVE<br><i>HRABAR</i> , <i>-A</i> , <i>-O</i> extracted from<br>the corpus of contemporary<br>Serbian language, Faculty of<br>Mathematics and Natural<br>Sciences, University of Belgrade<br>(113,000,000 words) |                | Number of concordances of the descriptive adjective <i>brave</i> analysed within the given collocates of its counterpart <i>hrabar</i> , <i>-a</i> , <i>-o</i> in Serbian, extracted from the database of the British National corpus (112,181,015 words) | Number of concordances of the adjective <i>brave</i> analysed within the given collocates of its counterpart in Serbian <i>hrabar</i> , <i>-a</i> , <i>-o</i> , extracted from the database of ukWac corpus (British Web) (2.135.658.231 tokens) |
|--|----------------|---|--|
| 1.   | Potez 38       | +Move 5   | +186   |
| 2.   | Čovek 39       | +Man 81   | +1.222   |
| 3.   | Korak 13       | +Step 7   | +148   |
| 4.   | Čin 13         | +Act 1  | +37  |
| 5.   | Žena 21        | +Woman 10   | +120   |
| 6.   | Odluka 12      | +Decision 15  | +248   |
| 7.   | Devojka 11     | +Girl 20  | +69  |
| 8.   | Igra 5         | -Game 0   | /  |
| 9.   | Srce 30        | +Heart 3  | +106   |
| 10.  | Suočavanje 2   | -Coping 0   | 1  |
| 11.  | Novinarstvo 1  | -Journalism 0   | /  |
| 12.  | Svedočanstvo 1 | -Testimony 0  | 1  |
| <b>TOTAL</b>   |                |   |  |
| 186  |                | 142   | 2.138  |

The frequency of the use of the descriptive adjective *brave* in the most frequent collocational framework of the adjective *hrabar*, *-a*, *-o* (*move*, *man*, *step*, *act*, *woman*, *decision*, *girl*, *game*, *heart*, *coping*, *journalism*, *testimony*) was carried out (Table 5).

After the analysis, it is determined that there is similarity in the collocation framework of the most common collocations of the adjectives *hrabar*, *-a*, *-o* (186), and its translation equivalents, analyzed in the collocation framework of the

adjective *brave* (142). After carrying out the same analysis based on the larger corpus ukWac (2.135.658.231 tokens), the number of concordances increased to 2.138 (Table 5).

In the continuation of the analysis, the frequency of using the adjectives *hrabar*, *-a*, *-o* in the collocation framework of the descriptive adjective *brave* (its translation equivalents in the Serbian language) was compared (Table 6).

**Table 6:** The frequency of use of the descriptive adjective *hrabar*, *-a*, *-o* within the collocational framework of the descriptive adjective *brave*

| COLLOCATES OF THE DESCRIPTIVE ADJECTIVE <i>brave</i> analysed within the given collocates of its counterpart <i>hrabar</i> , <i>-a</i> , <i>-o</i> in Serbian, extracted from the database of the British National corpus (112,181,015 words) | Number of concordances of the descriptive adjective <i>HRABAR</i> , <i>-A</i> , <i>-O</i> extracted from the corpus of contemporary Serbian language, Faculty of Mathematics and Natural Sciences, University of Belgrade (113,000,000 words) | Number of concordances of the adjective <i>brave hrabar</i> , <i>-a</i> , <i>-o</i> analysed within the given collocates of its counterpart in English <i>brave</i> , extracted from SrWac corpus (554.627.647 tokens) |
|---|---|--|
| 1. Man 94   | -Čovek 0  | +567   |
| 2. Face 75  | +Lice 2   | +3   |
| 3. World 63   | -Svet 0   | +4   |
| 4. Attempt 29   | +Pokušaj 4  | +20  |
| 5. Girl 22  | +Devojka 11   | +22  |
| 6. Boy 16   | -Dečak 0  | +31  |
| 7. Smile 13   | +Osmeh 1  | +3   |
| 8. Soul 12  | +Duša 1   | +4   |
| 9. Effort 12  | -Zalaganje 0  | -  |
| 10. Fight 10  | -Borba 0  | +4   |
| 11. Soldier 8   | +Vojnik 8   | +118   |
| 12. Warrior 7   | +Ratnik 3   | +93  |
| <b>TOTAL</b>  |   |  |
| 361   | 30  | 869  |



The results of the analysis indicate that the collocational framework of the adjective *brave* (its most frequent collocates) is more specific and in a very small number (30) comparable to the collocational framework of the adjective *hrabar, -a, -o* (361). However, the results are different when the analysis is performed on a larger corpus, such as the SrWac (554.627.647 tokens) (869 concordances) (Table 6).

In the next stage of the analysis a specific collocational framework of both the adjectives *brave* and *hrabar, -a, -o* was contrasted in order to reveal whether there are the same collocates among them, i.e., their counterparts (see Table 7). Therefore, we have applied contrastive analysis in both directions (Serbian to English and English to Serbian).

The results of the analysis imply the existence of two mutual most frequent collocates of the adjective *hrabar, -a, -o* and the most frequent collocates of the adjective *brave* (see Table 7).

**Table 7:** Comparison of specific collocational framework of both the adjectives *brave* and *hrabar, -a, -o*

| COLLOCATES OF THE<br>DESCRIPTIVE ADJECTIVE<br><i>HRABAR, -A, -O</i> extracted<br>from the corpus of<br>contemporary Serbian<br>language, Faculty of<br>Mathematics and Natural<br>Sciences, University of<br>Belgrade (113,000,000 words) | COLLOCATES OF THE<br>ADJECTIVE <i>BRAVE</i> extracted<br>from the British National corpus<br>(112,181,015 words) |
|---|--|
| Potez 38  | <b>Man 94</b>  |
| <b>Čovek 39</b>   | Face 75  |
| Korak 13  | World 63   |
| Čin 13  | Attempt 29   |
| Žena 21   | <b>Girl 22</b>   |
| Odluka 12   | Boy 16   |
| <b>Devojka 11</b>   | Smile 13   |
| Igra 5  | Soul 12  |
| Srce 30   | Effort 12  |
| Suočavanje 2  | Fight 10   |
| Novinarstvo 1   | Soldier 8  |
| Svedočanstvo 1  | Warrior 7  |
| 186   | 361  |

Throughout this analysis it has been noticed that there are the following mutual collocates: *čovjek/man* and *devojka/girl*, which are the translation equivalents of the descriptive adjectives *brave* and *hrabar, -a, -o*.

The most frequent collocates of the near-synonyms of the adjective *brave* were also analyzed on the basis of data taken from the British National Corpus (112,181,015 words) (Table 8).

|                   |                 |                |                  |                     |
|-------------------|-----------------|----------------|------------------|---------------------|
| <b>COURAGEOUS</b> | <b>MAN (11)</b> | DECISION (9)   | PEOPLE (6)       | EFFORT (5)          |
| <b>BOLD</b>       | MOVE (21)       | STEP (15)      | STATEMENT (16)   | <b>ATTEMPT (12)</b> |
| <b>FEARLESS</b>   | PATRIOT (2)     | INVENTORY (1)  | CREATIVITY (1)   | HUNTER (1)          |
| <b>DAUNTLESS</b>  | JAVELOT (4)     | CAVALRYMAN (1) | CONVERSATION (1) | BOY (1)             |
| <b>BRAVE</b>      | <b>MAN (94)</b> | FACE (75)      | WORLD (63)       | <b>ATTEMPT (29)</b> |

**Table 8**

The analysis has shown that the mutual collocates of the adjective *brave* and its near-synonyms are as follows:

*courageous/brave man*  
*bold/brave attempt*

Among the most frequent collocates of the adjective *brave* and its near-synonyms the following ones have a transferred meaning:

*courageous decision/effort*  
*bold move/step/statement/attempt*  
*fearless inventory/creativity*  
*dauntless conversation*  
*brave face/world/attempt*

We have performed an analysis of the most frequent collocates of near-synonyms of the adjective *hrabar, -a, -o* (*herojski, -a, -o, junački, -a, -o, odvažan, -a, -o, smeo, -la, -lo*) endorsing the corpus data of the Contemporary Serbian language, Faculty of Mathematics, University of Belgrade (113,000,000) (see Table 9).

|                  |                   |                  |                |                |
|------------------|-------------------|------------------|----------------|----------------|
| <b>*HEROJSKI</b> | <b>OTPOR (24)</b> | NAROD (11)       | <b>ČIN (9)</b> | PODUHVAT (5)   |
| <b>*JUNAČKI</b>  | PODVIG (3)        | <b>OTPOR (2)</b> | <b>ČIN (2)</b> | POKLIČ (2)     |
| <b>*ODVAŽAN</b>  | <b>ČOVEK (3)</b>  | PODUHVAT (3)     | MOMAK (2)      | VOJSKOVOĐA (2) |
| <b>*SMEO</b>     | /                 | /                | /              | /              |
| <b>*HRABAR</b>   | <b>ČOVEK (39)</b> | POTEZ (38)       | KORAK (13)     | ČIN (13)       |

|                        |           |                |                  |                   |
|------------------------|-----------|----------------|------------------|-------------------|
| <sup>10</sup> HEROJSKA | DELA (9)  | BORBA (9)      | ODBRANA (8)      | POBEDA (4)        |
| <sup>11</sup> JUNAČKA  | DELA (10) | KRV (3)        | SMRT (3)         | PESMA (2)         |
| <sup>12</sup> ODVAŽNA  | DAMA (2)  | DEVOJKA (1)    | TINEJDŽERKA (1)  | STARICA (1)       |
| <sup>13</sup> SMELA    | /         | /              | /                | /                 |
| <sup>14</sup> HRABRA   | ŽENA (21) | ODLUKA (12)    | DEVOJKA (11)     | IGRA (5)          |
| <sup>15</sup> HEROJSKO | DELO (12) | DOBA (10)      | VREME (2)        | SAMOŽRTVOVANJE(5) |
| <sup>16</sup> JUNAČKO  | DELO (12) | DRŽANJE (10)   | ZDRAVLJE (7)     | SRCE (4)          |
| <sup>17</sup> ODVAŽNO  | DELO (2)  | ZAUZIMANJE (1) | SUČELJAVANJE (1) | SRCE (1)          |
| <sup>18</sup> SMELO    | /         | /              | /                | /                 |
| <sup>19</sup> HRABRO   | SRCE (30) | SUOČAVANJE (2) | NOVINARSTVO (1)  | SVEDOČANSVO (1)   |

**Table 9**

The mutual collocates of the adjective *hrabar*, *-a*, *-o* and its near-synonyms are as follows:

*herojski/junački otpor* (Eng. *heroic/stout resistance*);  
*herojski/junački čin* (Eng. *heroic/stout act*);  
*odvažan/hrabar čovek* (Eng. *audacious/brave man*);  
*herojska/junačka dela* (Eng. *heroic/stout deeds*);  
*odvažna/hrabra devojka* (Eng. *audacious/brave girl*);  
*herojsko/junačko/odvažno delo* (Eng. *heroic/stout/audacious deed*);  
*odvažno/hrabro srce* (Eng. *audacious/brave heart*);

While analysing the most frequent collocates of the adjective *hrabar*, *-a*, *-o* and its near-synonyms it has been noticed that the following ones have the transferred meaning:

*herojski otpor/čin/poduhvat* (Eng. *heroic/resistance/act/achievement*);  
*junački otpor/čin/poklič* (Eng. *heroic resistance/act/cry*);  
*odvažan poduhvat* (Eng. *audacious achievement*);  
*hrabar potez/korak/čin* (Eng. *brave move/step/act*);  
*herojska dela/borba/odbrana/pobeda* (Eng. *heroic deeds/battle/defence/victory*);  
*hrabra odluka/igra* (Eng. *brave decision/game*);  
*junačka krv/smrt* (Eng. *stout blood/death*);  
*herojsko delo/doba/vreme/samožrtvovanje* (Eng. *heroic deed/age/time/self-sacrifice*);  
*junačko delo/držanje/zdravlje/srce* (Eng. *stout deed/holding/health/heart*);  
*odvažno delo/zauzimanje/sučeljavanje/srce* (Eng. *audacious deed/advocating/confrontation/heart*);  
*hrabro srce/suočavanje/novinarstvo/svedočanstvo* (Eng. *brave heart/confrontation/journalism/testimony*)

The analysis employed has shown that in addition to the denotative meaning of steadfastness, heartiness, fearlessness, as human characteristics, this adjective, as well as its near synonyms, indicate the heartiness, fearlessness and steadfastness of certain inanimate concepts (*resistance, act, endeavor, shout, step, move, deeds, fight, defense, victory, decision, game, blood, death, time, heart, journalism, confrontation ...*). The analysis of the adjective *brave* and its near-synonyms in the stated collocational framework: *courageous decision/effort; bold move/step/statement/attempt; fearless inventory/creativity; dauntless conversation; brave face/world/attempt* also shows that some traits characteristic of human beings have been attributed to certain objects and phenomena in English. The conducted research indicates prevailing idiomatic meaning of the adjectives analysed in both languages.

## 6. Conclusion

The multi-faceted approach to the research employed in this paper incorporates the collocational, componential, and contrastive analysis of the adjectives' extracted collocates and the semantic content of their near synonyms in English and Serbian.

The first significant result of the approach applied in this paper is related to the specific method of selecting near synonyms that consists of four stages of the analysis:

- (1) After analyzing the first ten synonyms (extracted from the dictionary of synonyms; see Addendum 2) through their co-occurrences within the most frequent nominal collocations of the node word (corpus-based analysis; see Addendum 1) four synonyms were considered to be near synonyms of the selected descriptive adjective.
- (2) In the second stage of the research, frequency analysis of the four most recurrent collocates of the adjective *hrabar* (masculine gender) was carried out within the collocational framework of the suggested near synonyms.
- (3) The third stage of the research includes frequency analysis of the four most recurrent collocates of the adjective *hrabra* (female gender) within the collocational framework of the suggested near synonyms.
- (4) The final stage of the research involves frequency analysis of the four most recurrent collocates of the adjective *hrabro* (neuter gender) within the collocational framework of the suggested near synonyms.

Within this frequency-based approach to entrenchment within the usage-based understanding of language (Glynn 2014: 15) the following valid result of the analysis highlights the influence of grammatical gender (masculine, female, neuter) on the various most frequent collocates of the analysed descriptive adjective when seen from the perspective of each gender:

For example:

*hrabar* (masculine gender): *potez* (567); *čovjek* (224); *korak* (88); *čin* (43) (see Table 1)  
*hrabra* (female gender): *žena* (107); *odluka* (39); *devojka* (22); *igra* (18) (see Table 2)  
*hrabro* (neuter gender): *srce* (104); *suočavanje* (26); *novinarstvo* (13); *sučeljavanje* (7)  
(see Table 3)

In the research undertaken it has been found that besides the influence of the most frequent collocational framework of the adjective on the choice of its near synonyms, this interrelation depends on the adjective's grammatical gender and also the near synonymy choice, especially regarding the near-synonyms' proximity-of-meaning order.

Namely, it has been noticed that this proximity-of-meaning order of near synonyms varies with the gender implied (masculine, feminine, neuter):

For example:

Near-synonyms of the adjective *hrabar* (masculine gender): *herojski* (137) *smeo* (78), *odvažan* (62), *junački* (44) (see Table 1)

Near-synonyms of the adjective *hrabra* (female gender): *smela* (20), *herojska* (17), *odvažna* (14), *junačka* (4) (see Table 2)

Near-synonyms of the adjective *hrabro* (neuter gender): *herojsko* (20), *junačko* (18), *odvažno* (7), *smelo* (5) (see Table 3)

The same interrelation between the word order of near-synonyms' proximity-of-meaning and grammatical gender was not noticed in the English language featuring natural language.

In this respect, the importance of the research lies in emphasizing the disparity between the English and Serbian language in the issues of grammatical gender.

An analysis of the descriptive adjective and its near-synonyms carried out within the most frequent collocational framework reveals a great number of samples implying idiomatic meanings in English and Serbian. The stated result is in line with the conclusion drawn by Firth (1957) claiming that: "you shall know the word by the company it keeps" and Dragičević (2010: 156) saying that: "the meaning of the lexemes is determined and shaped by the context, thus each new context features new semantic components of the lexeme, while the other components are shadowed." Therefore, this result proves that the collocational framework of the lexeme determines the meaning of the lexeme with more precision than its denotational meaning does.

The samples of collocates indicate a prevailing idiomatic meaning of the adjective *hrabar*, *-a*, *-o* and its near-synonyms while being analysed in the most frequent collocational framework. It can be concluded that besides a denotational meaning, this adjective and its near-synonyms imply other nuances of transferred meaning indicating the heartiness, fearlessness and steadfastness of

certain inanimate concepts (*resistance, act, endeavor, shout, step, move, deeds, fight, defense, victory, decision, game, blood, death, time, heart, journalism, confrontation ...*).

As a result of the contrastive analysis applied it has been noticed that the collocational framework of the descriptive adjectives in Serbian is more comparable to the collocational framework of the analysed adjectives in English (see Table 5), whereas the most frequent collocational framework of the descriptive adjective in English is rather specific and a lot less comparable to the collocational framework (of its Serbian counterparts) in Serbian (see Table 6):

|                                     |                                    |
|-------------------------------------|------------------------------------|
| <i>hrabar, -a, -o</i>               | <i>brave</i>                       |
| Serbian (186)/ <b>English (142)</b> | <b>English (361)</b> /Serbian (30) |

This result is in accordance with the further analysis which showed a small number of mutual collocates (their counterparts) in both English and Serbian. These results confirm the starting hypothesis of this paper that the collocational frameworks of words are highly dependent on the semantic-syntactic specificity of the language.

However, contrastive analysis of the most frequent semantic features of descriptive adjectives and their near-synonyms in Serbian and English showed that there are a great number of their most frequent semantic features (see Table 7). This finding poses an interesting question: "How can it be possible that in the analysis of the most frequent collocational frameworks of the adjectives analysed in Serbian and its counterparts in English, a small degree of mutual comparability has been noticed, and on the other hand, a separate analysis showed a great number of their most frequent semantic features? The answer to this question is related to the specific way of classifying semantic features into primary semes, and distinctive and peripheral features, as presented by Dragićević (2010).

Applying this method in future thesauri of English and Serbian dictionaries of synonyms would undoubtedly improve their quality by making differences in the meaning of near-synonyms more transparent, taking into account the obvious lack of presentation of the nuances in meaning among the given synonyms of the selected node word. At present, synonyms in the English and Serbian dictionaries are listed either in alphabetical order or randomly without paying attention to their proximity in meaning. Therefore, it has been proposed that list of synonyms be included next to the node word following the principle of proximity of meaning, not randomly or alphabetically. More precisely, the most frequent collocational framework of the node word should be extracted, within which the near-synonymy samples should be analysed, thus measuring their proximity of meaning to the node word. Moreover, alongside the suggested method, the use of synonyms within example sentences should be added, showing the nuances of their meaning within the context. In addition, as only adjectives in masculine gender are stated in Serbian dictionaries of synonyms and there is no insight into the specific semantic features of adjectives

tives in female and neuter gender, these samples of the adjectives analysed should be included.

## Endnotes

1. Fuertes-Olivera and Tarp (2022), Ledinek and Michelizza (2021), Norri (2019), Mathiasen (2017), Westveer, Sleeman and Aboh (2018) investigated issues of gender-biased dictionaries.
2. Method of choosing the first four near-synonymy samples has been presented in Addendum 2.
3. Method of choosing the most frequent collocational framework of the adjective analysed has been presented in Addendum 1.
4. See Fisiak (1971); Filipović (1984); Mair and Markus (1992); Hawkins (1986); House (1996); Johansson (2007); Xiao and McEnery (2006).
5. Eng. HEROIC (male) RESISTANCE (24); PEOPLE (11); ACT (9); ENDEAVOUR (5)
6. Eng. STOUT (male) ACHIEVEMENT (3); RESISTANCE (2); ACT (12) CRY (2)
7. Eng. AUDACIOUS (male) MAN (3); ENDEAVOUR (3); BOY (2); MILITARY LEADER (2)
8. Eng. BOLD (male)
9. Eng. BRAVE (male) MAN (39); MOVE (38); STEP (13); ACT (5)
10. Eng. HEROIC (female) DEEDS (9); BATTLE (9); DEFENSE (8); VICTORY (4)
11. Eng. STOUT (female) DEEDS (10); BLOOD (3); DEATH (3); POEM (2)
12. Eng. AUDACIOUS (female) LADY (2); GIRL (1); TEENAGER (1); OLD WOMAN (1)
13. Eng. BOLD (female)
14. Eng. BRAVE (female) WOMAN (21); DECISION (12); GIRL (11); GAME (5)
15. Eng. HEROIC (neuter) DEED (12); AGE (10); TIME (2); SELF-SACRIFICE (5)
16. Eng. STOUT (neuter) DEED (12); HOLDING (10); HEALTH (7); HEART (4)
17. Eng. AUDACIOUS (neuter) DEED (2); ADVOCATING (1); CONFRONTATION (1); HEART (1)
18. Eng. BOLD (neuter)
19. Eng. BRAVE (neuter) HEART (30); CONFRONTATION (2); JOURNALISM (1); TESTIMONY (1)

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**Addendum 1:** A method of determining the most frequent collocational framework on the example of the descriptive adjective *hrabar*

The first 250/526 extracted collocates of the adjective *hrabar* in the Corpus of the Contemporary Serbian language of the Faculty of Mathematics and Natural Sciences in Belgrade (113,000,000 words). The concordance list of extracted co-occurrences for the adjective *hrabar* is as follows:

Oficir (eng. *officer*) 2  
**Potez (eng. *move*) 24**  
Borac (eng. *fighter*) 10  
Lik (eng. *face*) 1  
Komandant (eng. *commander*) 1  
**Čovek (eng. *man*) 38**  
Vojnik (eng. *soldier*) 4  
Političar (eng. *politician*) 2  
Narod (eng. *nation*) 5  
**Korak (eng. *step*) 13**  
Državnik (eng. *stateman*) 1  
Pristup (eng. *approach*) 3  
**Čin (eng. *act*) 12**  
Borac (eng. *warrior*) 2  
Kritičar (eng. *critic*) 1  
Sudija (eng. *judge*) 1  
Pokušaj (eng. *attempt*) 4  
Odgovor (eng. *reply*) 1  
Novinar (eng. *journalist*) 1  
Život (eng. *life*) 4  
Roman (eng. *novel*) 5  
Duh (eng. *spirit*) 1  
Iskorak (eng. *stride*) 2  
Dječak (eng. *boy*) 2  
Rez (eng. *cut*) 1  
Skok (eng. *jump*) 2  
Kurs (eng. *course*) 1  
Tekst (eng. *text*) 1  
Mačak (eng. *tomcat*) 1  
Program (eng. *programme*) 1  
Muzičar (eng. *musician*) 1

According to the analysis applied the most frequent collocates of the adjective *hrabar* are as follows: *čovek* (eng. *man*) (38), *potez* (eng. *move*) (24), *korak* (eng. *step*) (13) and *čin*, (eng. *act*) (12).

In the conducted analysis extracted tokens were not lemmatized and only exact words were considered.

The same method has been applied for the feminine gender (*hrabra*) and neuter gender (*hrabro*).

**Addendum 2:** A method of determining near-synonymy samples of the adjective on the example of the descriptive adjective *hrabar*

We have extracted the first 10/15 synonyms of the adjective *hrabar* from the *Dictionary of synonyms* by Pavle Ćosić and his assistants (2008). The co-occurrence of the extracted samples within the most frequent collocational framework of the adjective *hrabar* has been determined while using the SrWac Corpus (554.627.647 tokens):

|  | <b>move</b> | <b>man</b> | <b>step</b> | <b>act</b> | <b>total</b> |
|--|-------------|------------|-------------|------------|--------------|
| <b>Junački</b><br>(eng. <i>stout</i> )     | 2           | 7          | 26          | 9          | 44           |
| <b>Smeo</b><br>(eng. <i>bold</i> )         | 15          | 38         | 32          | 3          | 78           |
| <b>Herojski</b><br>(eng. <i>heroic</i> )   | 6           | /          | 23          | 108        | 137          |
| Junačan<br>(eng. <i>manly</i> )            | 2           | 2          | 2           | 6          | 12           |
| Viteški<br>(eng. <i>chivalrous</i> )       | 2           | 1          | /           | 9          | 11           |
| Kuražan<br>(eng. <i>courageous</i> )       | 2           | 5          | 2           | 1          | 10           |
| Srčan<br>(eng. <i>stout-hearted</i> )      | 3           | 4          | /           | 3          | 10           |
| <b>Odvažan</b><br>(eng. <i>audacious</i> ) | 6           | 43         | 11          | 2          | 62           |
| Neustrašiv<br>(eng. <i>dauntless</i> )     | /           | 9          | 2           | /          | 9            |
| Nepokolebljiv<br>(eng. <i>undaunted</i> )  | /           | 2          | 1           | 2          | 5            |

According to the conducted analysis near-synonymy samples of the adjective *hrabar* are as follows: *herojski* (137), *smeo* (78), *odvažan* (62) and *junački* (44).

In the conducted analysis extracted tokens were not lemmatized and only exact words were considered.

The same method has been applied for the feminine gender (*hrabra*) and neuter gender (*hrabro*).