

WORD CLASS AND TEXTUAL FUNCTIONS OF ANTONYMS: A CORPUS STUDY

Nataša Kostić

University of Montenegro, Montenegro

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Abstract

Antonymy is traditionally regarded as a paradigmatic relation, but recent studies of antonym co-occurrence in written discourse have shown that it can be investigated as a syntagmatic relation as well. Such investigations in the Untagged electronic corpus of Serbian identified two major and four minor functions of antonyms in discourse and its accompanying lexico-syntactic patterns, matching the results of similar analyses in English, Japanese, Swedish and Dutch. This paper presents a research on the relation between word class that antonym pairs belong to (e.g. adjectives, nouns, verbs, adverbs and prepositions) and their textual functions in Serbian written discourse. It is hypothesized that language users employ antonymous pairs in text irrespective of their grammatical class. The general conclusion is that the roles of antonyms in text are not influenced by word class as significantly as one might expect.

Key words: antonymy, word class, textual function, antonymous pattern

1. Introduction

Although the term antonymy is in some of the literature confined to binary opposition between contrary meanings in language, such as ‘hot/cold’, as opposed to complementaries (‘true/false’) and other opposites in language, such as ‘buy/sell’ or ‘come/go’ (e.g. Lyons, 1977; Lehrer & Lehrer, 1982; Cruse, 1986; Justeson & Katz, 1991; Murphy & Andrew, 1993; Fellbaum, 1995; Jones, 2002), it is in this article used for all form–meaning pairings that occur in binary semantic contrast in language use. Empirical investigations of antonymy in Serbian and English electronic corpora (Kostić, 2011, 2013), have shown that phrasal contexts in which antonyms are used in both Serbian and English written discourse are relatively stable and that at least some of the most frequent ones can be viewed as potential triggers of contrast relation in discourse. As Jones (2002) has also suggested, functions of antonyms do not vary in every new context but are systematic and receptive to categorization. The majority of functional classes of antonymy that he has been able to define in his English corpus of journalistic texts can also account for antonymous usage retrieved from the corpus of Serbian, suggesting that contexts of antonymous usage may be structured similarly across languages. This paper aims to investigate the relation between word class that antonym pairs belong to (e.g. adjectives, nouns, verbs, adverbs and prepositions) and their textual functions in Serbian written discourse.

2. Theoretical background

This paper is based on Murphy’s (2003) theoretical model of antonymy (as well as all other lexico-semantic relations) in which antonym relation obtains between words in use. Antonymic relation is defined on the basis of minimal difference formulated in the relational principle Relation by Contrast-Lexical Contrast which states that: “A lexical contrast set includes only word-concepts that have all the same contextually relevant properties but one” (Murphy, 2003, p. 170). The differences among antonyms’ entailment relations are due to differences in the semantic structure of the individual words. Those that can be either complementary or contrary describe states that can be conceptualized as all-or-nothing or scalar. Murphy argues that antonymy is conceptual in nature and antonym pairs are always subject to contextual constraints. She also admits that there seems to be a small set of words with special lexico-semantic attraction that are entrenched in memory and perceived as strongly coupled pairings by speakers that she refers to as canonical antonyms.

Corpus-based approaches to antonymy are mostly done in English. Justeson and Katz analyzed the use of adjectival antonymous pairs in the one million Brown corpus of English and showed that “adjectives do indeed tend to co-occur in the same sentence as their antonyms far more frequently than expected by chance” (Justeson & Katz, 1991, p. 18). Fellbaum (1995) conducted the first large scale corpus work that looked at a wider class of antonym pairs, including nouns and verbs and found that antonyms in both groups co-occurred in the same sentence significantly more often than by chance. The largest and most systematic study of discourse functions of English antonyms is provided by Jones (2002) who described the contexts in which 56 antonym pairs co-occurred in the corpus of 280 million words taken from the *Independent* newspaper in the period of eight years (1988–1996). Just like Fellbaum, Jones noted the existence of lexical and syntactic frames in which antonyms co-occur but he also gave an in-depth analysis and classification of the discourse functions performed by antonyms in such frames. These discourse categories have been found in other genres (spoken English [Jones, 2006, 2007]) and registers of English (child and child-directed speech [Jones & Murphy, 2005; Murphy & Jones, 2008]) and other languages (Swedish [Murphy et al., 2009], Japanese [Muehleisen & Isono, 2009] and Serbian [Kostić, 2011]).

3. Word class and textual functions of antonyms

With an aim to identify phrasal contexts in which antonyms co-occur in Serbian written discourse, as well as to classify their main textual functions, Kostić (2011) made a systematic description of phrasal contexts in which canonical antonyms co-occur in the Untagged electronic corpus of the Serbian language. Fifty canonical antonymous pairs were pre-chosen (30 adjectives, 6 nouns, 6 verbs, 6 adverbs and 2 prepositions) and all the sentences (a total of 4,903) in which these pairs co-occurred were analyzed in order to establish the role of the antonymous pair and its lexical and syntactic context. The sentences were grouped according to the textual function of the antonymous phrase in the given context. The lexical and syntactic environment common to the functions of antonyms in text will be referred to as *antonymous pattern*, a “formulaic structure in which certain grammatical and content words systematically house both members of an antonymous pair” (Kostić, 2011, p. 518). Since the phenomenon of antonymy is not restricted to a single word class, the list of antonyms searched for in the corpus contained antonymous adjectives, as well as nouns, verbs, adverbs and prepositions. This paper aims to

investigate whether the function of antonymy in text is related to word class, and, if it is, what is the relation between grammatical categories that antonyms belong to and their roles in sentential contexts. In order to do this, a total of 4,903 sentences was broken down according to word classes. Table 1 presents the distribution of sentences in relation to word class and functions of antonyms in text:

Table 1: Functions of antonyms by word class (raw frequency and percentages)

	<i>Inclusiveness (%)</i>	<i>Lexical trigger of</i>	<i>Distinction n (%)</i>	<i>Change</i>	<i>Comparison (%)</i>	<i>Mutual exclusivity</i>	<i>X - Y</i>	<i>Idiom</i>	<i>Other</i>	Total
Adj.	1,292 (41.9)	1,018 (33)	126 (4.1)	102 (3.3)	56 (1.8)	73 (2.4)	92 (3)	236 (7.5)	88 (3)	3,083
Nouns	492 (45.8)	225 (21)	60 (5.6)	53 (4.9)	29 (2.7)	78 (7.3)	3 (0.3)	80 (7.4)	54 (5)	1,074
Verbs	172 (56.6)	115 (37.8)	-	-	4 (1.3)	7 (2.3)	1 (0.3)	5 (1.7)	-	304
Adverbs	203 (53.2)	104 (27.2)	3 (0.8)	3 (0.8)	2 (0.5)	2 (0.5)	48 (12.6)	13 (3.4)	4 (1)	382
Prep.	32 (53.4)	24 (40)	-	-	2 (3.3)	2 (3.3)	-	-	-	60
Total	2,191 (44,7)	1,486 (30,3)	189 (3.9)	158 (3.2)	93 (1.9)	162 (3.3)	144 (2.9)	334 (6.8)	146 (3)	4,903

3.1 Inclusiveness

Antonyms are in this function used to indicate the inclusion of the whole semantic dimension to which the pair belongs. This is the most frequent role in Serbian corpus, as it is present in almost one half of all examples. It is also the most widespread since all fifty pairs

examined are used in this function at least once. Though some variation arises regarding the extent to which the function of inclusiveness is pervasive across different word classes, there is no doubt that it does arise in all word classes examined. For example:

(1) Poslednji trijumf Novosađana propraćen je **lepim**, ali i **ružnim** stvarima koje su čini se neminovni pratilac našeg boksa. (antonymous adjectives)

‘The latest victory of the team from Novi Sad was accompanied by both **beautiful** and **ugly** things that always seem to be present in our boxing sport.’

(2) Dučić je našao večni mir stigavši na Crkvinu, na breg **smrti** i **života**. (antonymous nouns)

‘Dučić finally found his eternal peace upon arriving to Crkvina, the hill of **death** and **life**.’

(3) Reke čoveku **daju**, ali i **uzimaju**. (antonymous verbs)

‘The rivers can both **give** and **take**.’

(4) Mnogo je bivših asova ovog kluba koji su tu, **blizu**, ali i **daleko** od kluba u kojem su proveli najbolje godine života. (antonymous adverbs)

‘There are a lot of former athletes of this club who are there, both **near** and **far** from the club where they have spent the best days of their lives.’

(5) Vatra je progutala celu šumu **iznad**, ali i **ispod** puta. (antonymous prepositions)

‘The fire has engulfed the entire forest both **above** and **under** the road.’

These examples testify that the immediate environment of each antonymous pair remains unaffected by grammatical class and that the function of the antonymous framework is similar in each example: regardless of whether the antonyms are adjectives, nouns, verbs, adverbs or prepositions, they always signify inclusiveness or exhaustiveness when inserted into this framework.

3.2 Lexical trigger of contrast

Antonyms can be used as means of generating contrast between another pair of words, phrases or clauses in the same sentence. Antonyms are the most important signals of contrast owing to the possibility to be used as parameters of simultaneous similarity and difference and

establish another pair as the contrasting one within the same conceptual dimension. This function of antonyms appears to cross grammatical class, as the following examples illustrate:

(6) Ovo hapšenje je najodvažniji korak **novih** vlasti u izvođenju pripadnika **starog** režima pred pravdu. (ant. adjectives)

‘This arrest is the bravest action of the **new** authorities in order to take to the court the members of the **old** regime.’

(7) To je bio **kraj** slobode i **početak** ropstva pod Turcima. (ant. nouns)

‘That was the **end** of liberty and the **beginning** of slavery under the Turks’.

(8) U Srbiji, pak, vlast uvek **dobija**, a opozicija uvek **gubi** izbore. (ant. verbs)

‘In Serbia, the position always **wins** and the opposition always **loses** the elections.’

(9) Sledeći tom ove knjige je nova vrsta izazova jer je **mnogo** zvanih, **malo** odabranih. (ant. adverbs)

‘The next volume of the book is a new kind of challenge since **many** are called, **few** are chosen.’

(10) S vrha lestvica mogao je **iznad** sebe videti sve *Brahmaloke*, a **ispod** sebe je video *dubine Pakla*. (ant. prepositions)

‘From the top of the ladder he could see all the *Brahmaloke* **above** himself and the *depths of the Hell* **below**.’

3.3 Distinction

Antonyms can mark the parameters of a distinction, either literally or metaphorically, with an aim to emphasise the existence of some kind of difference. In the group of sentences that contain antonyms marking the parameters of a distinction, some word classes were not found in my database. This function of antonyms seems to be suitable for adjectives and nouns, and only marginally for adverbs, whereas there were not any examples featuring antonymous verbs or prepositions. This distribution across word classes could be the consequence of the lexico-syntactic pattern itself, which is more suitable for expressing the difference between things rather than between actions. Pairs of nouns and noun modifiers (i.e. adjectives) are differentiated between more frequently than pairs of verbs (and their modifiers). The following sentences illustrate this:

(11) Neće li to zamagliti razliku između “**teških**” i “**lakih**” tema? (ant. adjectives)

‘Isn't that going to blur the difference between “**difficult**” and “**easy**” topics?’

(12) I gde je razlika između **istine** i **laži**? (ant. nouns)

‘And where is the difference between a **truth** and a **lie**?’

(13) Velika provalija Slovence poslednjih godina deli na **levo** i **desno** orjentisane. (ant. adverbs)

‘There is a huge gap that has recently kept the Slovene divided into the **left** and the **right** oriented.’

3.4 Change

Antonyms can be used in contexts in which they mark the starting and ending points of a change, either from one place or time period to another or from one state to another. The change can also be a metaphorical transition when one talks about transformation from one state to another. Antonyms are especially suitable for this role, as they occupy opposing poles along the same dimension of similarity. These contexts are also restricted to the classes of adjectives, nouns and only marginally adverbs. The following examples serve as an illustration:

(14) Dešava se da ove **lake** bolesti pređu u **teške**, kao što su je meningitis. (ant. adj.)

‘It happens that these **harmless** diseases can turn into the **harmful** ones, such as meningitis.’

(15) Rat je iz svog **početka** prerastao direktno u svoj **kraj**. (ant. nouns.)

‘The war has, from its **beginning**, directly turned into its **end**.’

(16) Jer ono što mi se činilo jako **daleko** sada je postalo **blizu**. (ant. adverbs)

‘What seemed to be very **far** away has now become very **near**.’

3.5 Comparison

Antonyms can help create comparison along the dimension to make a point in the context in which they are used. All these phrasal contexts involve the use of comparative structure, either in the form *više x nego y* ‘more x than y’ or comparative form of certain adjective can either

precede antonyms or appear between them, followed by *od* 'than'. The following examples illustrate all five word classes used to create comparison between antonymous concepts:

(17) To je ona generacija, više **sita** nego **gladna**. (ant. adj.)

'That generation is more **full** than **hungry**.'

(18) U svetu "koji u zlu leži", **mržnje** je bilo uvek više nego **ljubavi**. (ant. nouns)

'In a world full of evil, **hate** has always been more pervasive than **love**.'

(19) Dakle, iz naše države više se **izlazilo** nego što se u nju **ulazilo**. (ant. verbs)

'Consequently, the number of people who **left** the country is higher than the number of people who **entered**.'

(20) E, znaš, da si još napornija kada si **daleko** nego kada si **blizu**. (ant. adverbs)

'Just to let you know, you are even more difficult when you are **far** away than when you are **near**.'

(21) Maldivi su više **ispod** nego **iznad** mora. (ant. prepositions)

'The Maldivian Islands are situated more **below** than **above** the sea level.'

Grammatical class seems to hold relatively little influence over the semantic and pragmatic function served by antonymy in these examples. Such flexibility of word class confirms that the antonymous pairs in the sentences above appear to have been chosen more because of their conceptual opposition than because of any grammatical criteria.

3.6 Mutual exclusivity

Antonyms can imply mutual exclusivity within the context in which they are used. In such contexts one member of the pair is negated, typically in the phrase *x, a ne y* 'x, and not y' and *ne x, (već) y* 'not x, (but) y'. The omission of the y element in the following sentence would certainly detract from its intended rhetorical effect:

(22) Nenadovi su bili **novi** a ne **stari** stanari. (ant. adj.)

'Nenad's family was **new** and not **old** neighbour.'

(23) "To je trougao **ljubavi**, a ne **mržnje**", kaže on, izlazeći iz svog dvora. (ant. nouns)

'It is a tringle of **love**, and not **hate**, he said coming out of his castle.'

(24) Obe ste lepe i šarmantne, prirodno je da ništa ne **dobijate**, već da **gubite**. (ant. verbs)
‘You are both beautiful and charming, and it is natural that you don’t **receive** but **lose**.’

(25) Oltar se nalazio **ispred** apside a ne **iza**. (ant. prepositions)
‘The altar was **in front of** the apse, and not **behind**.’

In all such cases the insertion of the second member of the antonymous pair is essential if the writer wants to convey the intended meaning. It is not surprising that antonyms are exploited to achieve such rhetorical effect. The textual functions of implying mutual exclusivity crosses all word class boundaries and, despite a relatively small number of sentences extracted from the corpus, it yields a fairly even distribution of antonyms across grammatical classes.

The data in Table 1 also provide the frequencies of two very specific uses of antonyms that have not been ascribed to any of the functions, namely the contexts in which antonyms are hyphenated (‘X–Y’, e.g. *muško-ženske razlike* ‘male-female differences’) and the contexts in which antonyms are part of a well known idiom (e.g. *kako došlo tako i otišlo* ‘easy come easy go’). The frequency of these contexts in any database depends on the pairs chosen for analysis, since some adjectival, nominal and adverbial pairs from my list are rather often used in such contexts (e.g. adjectival pair *crni/beli* ‘black/white’ referring to the football club Partisan, adverbial pair *levo/desno* ‘left/right’ in the phrase *gledati levo-desno* ‘to look left and right’, etc.)

4. Conclusion

Starting from the notion of antonymous pattern, that refers to relatively stable phrasal contexts of antonym co-occurrence in the sentence, adjectival, nominal, verbal, adverbial and prepositional antonyms were investigated in the corpus of contemporary Serbian language, with an aim to establish whether the word class to which the antonymous pair belongs influences the functions that antonyms serve in text. Data evidence some correlation, but this correlation is relatively minor. In all five word classes examined, at least 60% of sentences fall into one of the two major textual functions of antonyms, and in all five word classes the former is more frequent than the latter. On the other hand, some textual functions of antonymy avoid certain word classes entirely (at least in my database) because it is grammatically difficult to house such words within their associated frameworks. In marking the parameters of a distinction and in marking starting and ending points of a change or a transition, there were no verbal and prepositional pairs in my

database. This may suggest that textual functions profile of antonymous verbs and prepositions is slightly different from the profile of other parts of speech. However, there is not any other minor textual function that shares this trait, in which word class distributions are mostly consistent. The general conclusion is that the roles of antonyms in text are not influenced by word class as significantly as one might expect. Language users employ antonymy to serve much the same semantic and pragmatic purposes, regardless of whether those antonyms are adjectives, nouns, adverbs, verbs or prepositions. Being a conceptual relation, antonymy is not only a relation which crosses word classes, it is to the largest degree a relation which functions irrespective of word class.

References

- Cruse, D. A. (1986). *Lexical semantics*. Cambridge: Cambridge University Press.
- Fellbaum, C. (1995). Co-occurrence and antonymy. *International Journal of Lexicography*, 8(4), 281-303.
- Jones, S. (2002). *Antonymy: a corpus-based perspective*. London and New York: Routledge.
- Jones, S. (2006). Antonym co-occurrence in spoken English. *Text and Talk*, 26(2), 191-216.
- Jones, S. (2007). 'Opposites' in discourse: A comparison of antonym use across four domains. *Journal of Pragmatics*, 39(6), 1105-1119.
- Jones, S., & Murphy, M. L. (2005). Using corpora to investigate antonym acquisition. *International Journal of Corpus Linguistics*, 10(3), 401-422.
- Justeson, J. S., & Katz, S. M. (1991). Co-occurrences of antonymous adjectives and their contexts. *Computational linguistics*, 17, 1-19.
- Kostić, N. (2011). Antonymous frameworks in Serbian written discourse: phrasal contexts of antonym co-occurrence in text. *Poznan Studies in Contemporary Linguistics*, 47(3), 509-537.
- Kostić, N. (2013). *Antonimija u diskursu*. [Antonymy in Discourse]. Podgorica: University of Montenegro.
- Lehrer, A., & Lehrer, K. (1982). Antonymy. *Linguistics and Philosophy*, 5(4), 483-501.
- Lyons, J. (1977). *Semantics*. Cambridge: Cambridge University Press.
- Muehleisen, V., & Isono, M. (2009). Antonymous adjectives in Japanese discourse. *Journal of Pragmatics*, 41(11), 2185-2203.
- Murphy, G. L., & Andrew, J. M. (1993). The conceptual basis of antonymy and synonymy in adjectives. *Journal of Memory and Language*, 32(3), 301-319.
- Murphy, M. L. (2003). *Semantic relations and the lexicon*. Cambridge: Cambridge University Press.
- Murphy, M. L., & Jones, S. (2008). Antonyms in children's and child-directed speech. *First Language*, 28(4), 403-430.

Murphy, M. L., Paradis, C., Willners, C., & Jones, S. (2009). Discourse functions of antonymy: a cross linguistic investigation of Swedish and English. *Journal of Pragmatics*, 41(11), 2159-2184.

Ogden, C. K. (1967). *Opposition: a linguistic and psychological analysis*. Bloomington: Indiana University Press.