

Special issue

**A Cognitive Linguistic View of
South Slavic Prepositions and Prefixes**

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Introduction: A cognitive linguistic view of South Slavic prepositions and prefixes¹

Background and motivation for this special issue

Cognitive linguists dealing with the Slavic languages in Slavic countries and worldwide have been engaged in broad research activities.² However, much of this research has remained overlooked, especially works published in Slavic languages in Slavic countries. Individual Slavic languages are unevenly repre-

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² See the Slavic Cognitive Linguistic Bibliography by Laura Janda and Ljiljana Šarić at http://www.hum.uit.no/lajanda/SlavCognBibliography_Sept2009.doc, which provides an overview of part of this research up to 2009. Three edited volumes provide an overview of some research topics in cognitive linguistic analyses of Slavic, two of which are in English (Grygiel & Janda 2011; Divjak & Kočańska 2007) and one in German, English, and Russian (Anstatt & Norman 2010).



sented in cognitive linguistic research in an international context; among other things, this is related to how widely individual Slavic languages are taught and studied abroad.

Seven articles in this special issue on South Slavic prepositions and prefixes draw attention to the cognitive linguistic approach to South Slavic languages, a language group that is underrepresented in research on Slavic in English-language publications. This issue does not aim to provide a broad overview of representative topics that cognitive linguists dealing with South Slavic explore, although this would be a valuable endeavor. Instead, it focuses on depth and detail: on space in South Slavic, specifically, on prepositions and prefixes, and the constructions they occur in. The articles share a common theoretical framework, although their approaches slightly differ, a consequence of which is that the articles enter into an interesting dialogue with each other. We view this as a positive fact.

The international research group *Space in South Slavic* developed the idea of this thematic issue at the group's initial workshop held in March 2010 in Oslo and in its subsequent research activities. All of the contributors to this issue are members of this project group and have been participating in the project *Spatial Constructions in South Slavic* at the University of Oslo.

Why space in South Slavic, and why a cognitive linguistic view on spatial particles?

The common theoretical frameworks of the analyses in this issue are cognitive linguistics and the constructional approaches developed within or compatible with cognitive approaches (e.g., Goldberg 2006; Croft 2001). Since the 1980s there has been intense development in cognitive linguistics, which has proved particularly suitable for an account of phenomena traditionally considered “grammatical” (e.g., prepositions, prefixes, and cases). Spatial language has attracted much attention since Lakoff and Johnson's study (1980). A cognitive linguistic approach has proved both theoretically convincing and user-friendly for analyzing spatial relations (e.g., Lakoff 1987; Langacker 1987, 1991a, 1991b; Janda 1993; Dąbrowska 1997; Tyler & Evans 2007). Furthermore, it has proved to be easily adaptable to and successful in teaching contexts (e.g., Janda & Clancy 2002, 2006). Cognitively oriented constructional approaches are usage-based, as is Langacker's Cognitive Grammar. Together with Cognitive



Grammar, they share a view of grammatical constructions as symbolic units, and likewise assume structured inventories of constructions. Constructionist approaches such as Goldberg's (2006) are promising when dealing with spatial units; specifically, the view that certain constructions have a schematic meaning that cannot be attributed to single words in them, and that certain construction types are metaphorical extensions of other constructions. Croft's (2001) assumption of a universal conceptual space is highly relevant for studying spatial language: it reflects the core assumption of cognitive approaches maintaining that cross-linguistic patterns are motivated by meaning that emerges from conceptual structure. Specifically relevant to the investigation of spatial language is the constructional profile methodology utilized in cognitive linguistics and construction grammar that takes a word as the departure point and targets the range of constructions in which it appears (see, e.g., Sokolova et al., forthcoming).

Cognitive linguistics departs from the assumption that grammar is inherently symbolic and that all grammatical forms are meaningful. All meanings of grammatical units are considered part of structured networks, and not random collections of diverging usages. The concept of the semantic network (Langacker 1991a: 369 ff., 1991b: 266 ff.) implies that the senses of polysemous linguistic units form a network organized by various categorizing relationships, which include extension from a prototype and the similarity principle. Meaning in cognitive linguistics is equivalent to conceptualization, which itself implies not only content, but also imagery, or construal. The ability to construe the same content in different ways is considered one of the most important human cognitive capacities.

Extensive research on spatial conceptualization has been carried out for English. Other languages have been left out of the main focus for a long time. Despite a number of studies discussing single topics in Slavic (e.g., cases and prepositions: Janda 1993; Dąbrowska 1997; Przybylska 2002; Klikovac 2006), much work is still to be done. What is missing is especially a comparative perspective within Slavic, and a contrastive view on Slavic vs. non-Slavic. Moreover, research in South Slavic spatial semantics has been and is still underrepresented in Slavic studies. Although there exists substantial research on prefixes and prepositions in Russian and Polish, the number of studies of the same phenomena in other Slavic languages, including South Slavic, is rather limited. This thematic issue and the project behind it seek to contribute to more intense research on spatial units in individual South Slavic languages and to initiate the next important steps: these include contrastive analyses concentrating on more than one



Slavic language and theoretical considerations of how the results of studies dealing with South Slavic can be applied in cross-linguistic research.

Prepositions and prefixes in South Slavic: An outline of research to date

Prepositions and prefixes in South Slavic are first and foremost examined in dictionaries, grammars, and word-formation manuals, which provide lists of their basic meanings (e.g., for Bosnian/Croatian/Serbian Babić 1991; for Bulgarian Bojadžiev et al. 1957, 1977; Scatton 1983; Andrejčin et al. 1998; for Macedonian Koneski 2003; and for Slovenian Toporišič 2000). As a rule, these manuals apply the traditional “homonymy” approach, listing a number of meanings as though these had nothing or little to do with each other. They differ in the number of senses ascribed to individual units and in definitions of primary senses. Generally, relations between the different senses of prefixes and prepositions are not established. Moreover, few studies deal with prefixes and prepositional expressions co-occurring in the same construction (see, e.g., Žele 2009 for Slovenian).

Regarding the cognitive view on verbal prefixes in Slavic, the most work has been done on East and West Slavic (e.g., Janda 1986; Shull 2003; Przybylska 2006). For BCS, Klikovac (2004) analyzed the prefix *raz-* and Šarić the prefix *nad-* (2001). Belaj (2008) is the only book-length analysis of BCS prefixes in a cognitive framework. Studies related to prepositions and cases in the cognitive framework (e.g., Brala 2009; Šarić 2008; Klikovac 2006) address some issues relevant for the analysis of spatial units. Šarić (2008, 2010) addresses some issues relating to prefixes: the importance of spatial meanings and corpus analysis, and the need to link a historical view on meanings of prefixes to an analysis of modern meanings. For Bulgarian, the only analyses of prefixes in a cognitive framework have been conducted by Tchizmarova (e.g., 2005, 2006). For Macedonian, Lazarevska-Stančevska (2004) is the only attempt at a cognitive approach. Apart from analyses dealing with prefixes and aspect in a comparative Slavic perspective (e.g., Dickey 2003, 2005) and Slavic prepositions in a comparative perspective (Będkowska-Kopczyk 2009; Sicherl 2007) that include some Slovenian data, Slovenian spatial language has not been dealt with in any extensive studies in the cognitive framework.



Many questions related to the semantics of prefixes and (cognate) prepositions have not been extensively investigated. Systematic monographs or extensive articles that go beyond single units are lacking. Moreover, individual meanings of spatial units in existing studies are mostly treated in isolation. In particular, there is a need for a systematic account of the relationship between spatial prefixes and cognate prepositions with the aim of presenting prepositional and prefixal meanings not as a haphazard collection of senses, but as structured meaning networks.

In addition, there is a need to investigate disagreements on the primary senses of spatial units in research to date: why different sources provide a varying number of secondary senses, and why they rank different senses differently. Comparative analyses of the relation of spatial units in South Slavic to semantically similar units in other languages can offer useful aid for L2 learning and teaching, especially in an account of the relation of prepositions' and prefixes' spatial meanings versus their abstract and metaphorical meanings, and their constructional behavior.

Within the South Slavic language group, there is greater areal variation and typological diversity than in the other two Slavic language groups. The contributors to this special issue share the belief that systematic analyses of prepositional and prefixal semantics in South Slavic from a cognitive linguistic perspective will not only increase knowledge about the semantics of these spatial units, but also about the cognitive linguistic paradigm in general, the semantic-syntactic interface (i.e., principled patterns of interaction between syntax and semantics, and semantic universals), and patterns of mappings from spatial to abstract domains. Moreover, due to structural differences between the two sub-groups of South Slavic (Bulgarian and Macedonian vs. Bosnian/Croatian/Serbian and Slovenian), we also believe that an account of spatial units in South Slavic is useful from a typological point of view. South Slavic is a challenging language group: Bulgarian and Macedonian belong to eastern South Slavic, characterized by a typological shift from synthetic Slavic to analytic Balkan languages due to long linguistic and cultural interaction with neighboring non-Slavic languages (e.g., Greek, Albanian, and Romance). Both exhibit Balkan Sprachbund features (see Mišeska Tomić 2008; Topolińska & Bužarovska 2008) such as loss of declension and prepositions substituting for case. This affects the semantic profile of prepositions in Bulgarian and Macedonian compared to western South Slavic (BCS and Slovenian), which retains declension. South Slavic languages are spoken in a small, linguistically diverse region with intense language contact.



“Squeezed” into the Balkan Peninsula, they are linguistically isolated from the rest of the Slavic world and exposed to the influence of Germanic, Romance, and other non-Slavic neighbors. Thus, studying the common areal characteristics that set them apart from other Slavic languages can provide important insights into the relevant features of non-Slavic languages that have influenced South Slavic.

Research questions dealt with in this issue

The analyses in this issue deal with issues relevant for arriving at a convincing semantic account of spatial language. These are:

- How to determine the centrality and primacy of a certain meaning in the meaning network of a spatial unit. What are the criteria for selecting a prototype for spatial units and for singling out their distinct senses?
- The relevance of spatial meaning. Is there a traceable relation of spatial meanings to non-spatial meanings of prepositions and prefixes, and what is the nature of that relation? What processes play a role in the transformation of spatial meanings into non-spatial domains? How can regularities in these processes be traced? Can the relation of spatial meanings to other ones be explained in terms of extensions, what are the conditions for extensions,³ and are they predictable?
- What is the relation of motion in space to abstract/fictive motion, and what is the nature of the relation of spatial to temporal and other (abstract, metaphorical) meanings?
- Can a systematic account of spatial prepositional meanings help explain the core meanings of cognate prefixes and the systematic nature of the relation of various prefixal meanings?
- How does the spatial meaning affect other prepositional meanings? Are there significant differences in the domain of prefixes? How can the relation of all meanings (spatial and non-spatial) of a unit be accounted for?

³ Many cognitive linguistic analyses confirm that the synchronic semantics of prefixes and prepositions cannot be explained in an exclusively synchronic perspective. The crucial cognitive linguistic claim about metaphorical extensions of senses of linguistic units is diachronic in essence.



The contributions strongly focus on verbal prefixes in modern languages (i.e., prefixed motion verbs and their constructions) and how the semantics of these units influence the non-spatial domain. Verbal prefixes are of crucial importance in studying spatial language because verbs are central for understanding and coding space in language. The analyses of verbal prefixes concentrate on the following questions:

- What semantic factors can explain why certain verbs take certain prefixes, and how verbal semantics influence the choice of prefixes? How does the meaning of the source verb change in prefixation, and how does the prefixal meaning change with the source verb's meaning?

So far, there is no plausible systematic explanation of how a prefix alters the semantic and syntactic features of a verb, and how it alters the scene construal, either for Slavic in general or for individual Slavic languages.

A further relevant question is:

- How can the constructional level help account for the semantic difference between verbs formed with the same prefix?

As single analyses indicate, it is beneficial to look at the constructional profiles—that is, “the frequency distribution of the constructions that a word appears in” (Janda & Solovyev 2009: 367)—of the prefixed units to investigate the relation of the prefix and the choice of construction types. So far, this topic has rarely been studied in South Slavic material.

In exploring these questions, the analyses concentrate on examples of frequent constructions with spatial prepositions and cognate and non-cognate prefixes, and on the role of prefixes and prepositions in spatial constructions in which they co-occur. Furthermore, relevant semantic parameters in these constructions are identified (e.g., landmark types and the perspective of an observer).

In discussing verbal prefixes in Slavic, it is necessary to look at the relation of the spatial meaning of prefixes and their perfectivizing function. Among the relevant questions are why certain semantic groups of verbs take certain prefixes as perfectivizers, and whether there are “empty prefixes” in South Slavic. In ex-



ploring these questions, an exploration of the spatial meaning, historical semantic changes, and conventional metaphors seems crucial.

A few thoughts about future research

All the analyses in this issue deal with topics that raise interesting questions for future studies, especially comparative ones. One of these is the scope of meaning differences among prepositions and prefixes in various South Slavic languages, in both the spatial and non-spatial domain. A further challenging issue is the constructional behavior of the shared inventory of prefixes, and the scope of and reasons for differences in prefixal constructions within South Slavic. Furthermore, common and diverging patterns for verbal prefixes functioning as “empty” perfectivizers in South Slavic certainly deserve more attention in future research.

Recently there has been growing interest in semantic issues and the corpus approach to Slavic (e.g., the *Exploring Emptiness* project in Tromsø). Not much has been done so far regarding corpora and the exploration of space in South Slavic. The dictionary examples that have usually been used in studies of spatial language often seem artificial and obsolete. Some contributions to this issue demonstrate the advantages of using corpora in studying spatial language. Usable electronic corpora exist for all but one language.⁴ A useful step for further investigations of spatial language would be creating smaller, specific-purpose corpora based on existing corpora and the internet, which is a good resource for collecting informal discourse, for example.

We believe that contrastive studies and studying the common Slavic characteristics of South Slavic and features that it shares with non-Slavic languages will provide insights into cross-linguistic phenomena and contribute to knowledge about universals in spatial language.

⁴ For BCS, there are a few corpora (e.g., *The Oslo Corpus of Bosnian Texts*, *The Corpus of Serbian* at the University of Belgrade, the *30-Million Word Corpus of Croatian*). For Bulgarian, a good resource is *The Bulgarian National Corpus*. For Macedonian, there is a small corpus available at the Text Laboratory, University of Oslo, but there is an urgent need for creating other utilizable corpora. For Slovenian, there is, for example, the 600-million-word *FidaPLUS* corpus and the *Slovenian-English Parallel Corpus*.



Overview of the articles

Agnieszka Będkowska-Kopczyk analyzes the Slovenian prefix *o-/ob-* in verbs of emotion, and looks at how it contributes to the spatial conceptualization of emotion events. She argues that the spatial notion of circularity underlies the metaphorical extensions of *o-/ob-* into the domain of emotions. In constructions referring to the first stage of the emotion scripts, the person that is emotionally affected is conceptualized as being surrounded by an emotion. In experiencer-subject constructions referring to the third stage of the scripts, the person that undergoes the physical changes is conceptualized as being affected by the emotion all around his or her body, whereas in experiencer-subject constructions referring to the second stage of the scripts the person that is experiencing the emotion is conceptualized as metaphorically encircling the object.

Maja Brala-Vukanović and Anita Memišević concentrate on the Croatian particles *od* and *do*, which function as both prepositions and prefixes, and frequently co-occur in their prefixal and prepositional function in the same construction. Their analysis also includes the Croatian spatial prepositionless dative, which with some verbs allows double (adlative and ablative) readings. Their findings indicate that elements of directionality of motion are associated with the verb—that is, primarily with prefixes—whereas source and goal elements of the physical path are associated with the prepositional phrase. Furthermore, this analysis indicates that the bare dative in spatial contexts is associated with the affectedness of the dative referent by the verbal action rather than with the directionality notion. An examination of the alternation between implicit and explicit source/goal combinations and the perceived position of the speaker in various combinations has confirmed the goal-over-source bias, frequently noticed in research on spatial language to date.

Stephen Dickey's paper deals with orphan prefixes; that is, prefixes that no longer share a dominant spatial meaning with their cognate prepositions, particularly concentrating on *po-*, *s-/z-*, and *iz-*. Examining perfectivizing prefixation in three South Slavic languages, Bulgarian, Croatian, and Slovene, this paper contributes to broader discussions of grammaticalization. The main question is how prefixes develop abstract, aspectual meanings in addition to their original spatial meanings, and the degree to which they must lose these spatial meanings to be considered grammaticalized as aspectual markers. The analysis indicates that, although the loss of a dominant spatial meaning is necessary for a given prefix to be grammaticalized as a purely perfectivizing prefix in



individual Slavic languages, this process is neither predictable nor necessary for the maintenance of a Slavic-style aspect system. The facts from South Slavic support recent views on grammaticalization, indicating that, instead of a grammaticalization process per se, only semantic changes exist and lead to grammaticalization as an epiphenomenal result.

Liljana Mitkovska and Eleni Bužarovska analyze the preposition and prefix *nad* in Macedonian, and compare its meaning to the meaning of *nad(-)* in Bulgarian, Croatian, and Serbian. They also consider the Croatian/Serbian preposition *iznad*. The authors' elaboration of the prepositions' senses show how the spatial and non-spatial senses centered around a prototypical "TR higher than LM"-schema are interrelated, and how spatial scenes have influenced the derived metaphorical senses of the preposition *nad*. Furthermore, the analysis shows how prepositional senses extend into prefixal senses via regular extensions, and how prepositional sources influence the polysemy of some prefixed verbs. The authors argue that South Slavic *nad-* is stative, and they also concentrate on the role of the prefix *nad-* as a telicity marker in verbs.

Ljiljana Šarić examines the spatial particle *uz(-)* in Croatian. The first study examining the semantics of the preposition *uz* aims to establish a coherent semantic network of this preposition. The main questions the analysis concentrates on is how the preposition's spatial meanings of immediate proximity and upward motion relate to each other, and how these meanings relate to non-spatial meanings, such as temporal and accompaniment meanings. The classification and interpretation of examples, as well as conclusions about relations of different meanings, are based on a text corpus available online. In an elaboration of the semantic profile of the preposition, particular attention is given to its constructional preferences; that is, to elements it tends to combine with. For example, it has been shown how typical features of landmarks occurring with *uz* in spatial contexts influence non-spatial contexts.

Departing from the premises of the analysis of the preposition *uz* in spatial and non-spatial contexts, the study of the prefix *uz-* concentrates on its semantics in different parts of speech in which it occurs. Particular attention is given to *uz-* as a verbal prefix. A few subgroups of verbs prefixed with *uz-* in contexts of upward motion have been identified. The analysis' main concern is to show how the central prefix meaning, upward motion, relates to meaning extensions into domains that do not seem to have an obvious spatial basis. Part of this analysis



examines the constructional behavior of a representative motion verb prefixed with *uz-*.

Ivelina Tchizmarova looks at the Bulgarian prepositions and verbal prefixes *nad(-)* and *pod(-)*, taking into consideration their spatial and metaphorical meanings. She approaches these units as radial concepts. Her schematic representation of the meaning of *nad(-)* and *pod(-)* points towards the existence of one central schema of primary importance (a schema that is neutral with respect to vertical alignment), in addition to other, secondary image schemas. The theoretical question of crucial importance in her analysis is how to decide on distinct senses of a polysemous linguistic unit and how to determine the primary sense. This analysis raises interesting questions about similarities and differences in the meaning networks for these basic spatial units in different Slavic languages, as well as between Bulgarian units and their English equivalents.

The authors of the single analyses in this special issue of *Jezikoslovlje* hope to have shown how pervasive spatial concepts are in understanding and representing various domains of human experience, and they hope that the research presented here will be an impetus for further systematic investigations into space in South Slavic, as well as for contrastive studies that will include different Slavic and non-Slavic languages.

References

- Andrejčin, Ljubomir, Petja Asenova, Elena Georgieva, Kalina Ivanova, Ruselina Nicolova, Petár Pašov, Xristo Pärvev, Rusi Rusinov, Valentin Stankov, Stojan Stojanov, Kristalina Čolakova (1998). *Gramatika na sãvremennija bãlgarski knižoven ezik. Tom 2, Morfologija, část 2*. Sofia: Abagar.
- Anstatt, Tanja, Boris Norman, eds. (2010). *Die slawischen Sprachen im Licht der kognitiven Linguistik*. Wiesbaden: Harrassowitz.
- Babić, Stjepan (1991). *Tvorba riječi u hrvatskom književnom jeziku*. Zagreb: Globus.
- Będkowska-Kopczyk, Agnieszka (2009). W “pojemniku uczuć”. Analiza wybranych konstrukcji przyimkowych w języku polskim i słoweńskim. Ilona Generowicz, Elżbieta Kaczmarska, Ignacy M. Doliński, eds. *Świat ukryty w słowach, czyli o znaczeniu gramatycznym, leksykalnym i etymologicznym*, Warszawa: Wydawnictwo Uniwersytetu Warszawskiego, 27–44.
- Belaj, Branimir (2008). *Jezik, prostor i konceptualizacija. Shematična značenja hrvatskih glagolskih prefiksa*. Osijek: Sveučilište Josipa Jurja Strossmayera, Filozofski fakultet.



- Bojadžiev, Simeon. et al. (1957). *Rečnik na bǎlgarskija ezik*. Sofia: Bǎlgarska akademija na naukite.
- Bojadžiev, Simeon et al. (1977). *Rečnik na sǎvremennija bǎlgarski knižoven ezik*. Sofia: Bǎlgarska akademija na naukite.
- Brala-Vukanović, Marija (2009). The story of ‘o’. Marija Brala-Vukanović, Lovorka Gruić-Grmuša, eds. *Space and Time in Language and Literature*. Newcastle upon Tyne: Cambridge Scholars Publishing, 61–86.
- Croft, William (2001). *Radical Construction Grammar: Syntactic Theory in Typological Perspective*. Oxford: Oxford University Press.
- Dąbrowska, Ewa (1997). *Cognitive Semantics and the Polish Dative*. Berlin: Mouton de Gruyter.
- Dickey, Stephen M (2003). Verbal aspect in Slovene. *Sprachtypologie und Universalienforschung* 56: 182–207.
- Dickey, Stephen M (2005). *S-/Z-* and the grammaticalization of aspect in Slavic. *Slovene Linguistic Studies* 5: 3–51.
- Divjak, Dagmar, Agata Kochańska (2007). *Cognitive Paths into the Slavic Domain*. Berlin: Mouton de Gruyter.
- Goldberg, Adele (2006). *Constructions at Work. The Nature of Generalization in Language*. Oxford: Oxford University Press.
- Grygiel, Marcin, Laura A. Janda, eds. (2011). *Slavic Linguistics in a Cognitive Framework*. Frankfurt am Main: Peter Lang.
- Janda, Laura A. (1986). *A Semantic Analysis of the Russian Verbal Prefixes: za-, pere-, do-, and ot-*. Munich: Verlag Otto Sagner.
- Janda, Laura A. (1993). *A Geography of Case Semantics: The Czech Dative and the Russian Instrumental*. Berlin: Mouton de Gruyter.
- Janda, Laura A., Steven J. Clancy (2002). *The Case Book for Russian*. Bloomington: Slavica Publishers.
- Janda, Laura A., Steven J. Clancy (2006). *The Case Book for Czech*. Bloomington: Slavica Publishers.
- Janda, Laura A., Valery Solovyev (2009). What constructional profiles reveal about synonymy: A case study of Russian words for SADNESS and HAPPINESS. *Cognitive Linguistics* 20: 367–393.
- Klikovac, Duška (2004). *Metafore u mišljenju i jeziku*. Belgrade: Biblioteka XX vek.
- Klikovac, Duška (2006). *Semantika predloga: studija iz kognitivne lingvistike*. Belgrade: Filološki fakultet.
- Koneski, Kiril (2003). *Zboroobrazuvanje vo sovremeniot makedonski jazik*. Skopje: UKIM.
- Lakoff, George, Mark Johnson (1980). *Metaphors We Live By*. Chicago: University of Chicago Press.
- Lakoff, George (1987). *Women, Fire, and Dangerous Things: What Categories Reveal about the Mind*. Chicago: University of Chicago Press.
- Langacker, Ronald W. (1987). *Foundations of Cognitive Grammar, Volume 1: Theoretical Prerequisites*. Stanford, CA: Stanford University Press.



- Langacker, Ronald W. (1991a). *Foundations of Cognitive Grammar. Volume 2: Descriptive Application*, Stanford, CA: Stanford University Press.
- Langacker, Ronald W. (1991b). *Concept, Image and Symbol: The Cognitive Basis of Grammar*. Berlin: Mouton de Gruyter.
- Lazarevska-Stančevska, Jovanka (2004). *Metaforizacija na over, under i out kaj kompleksite zborovi vo angliskiot jazik i nivnite ekvivalenti vo makedonskiot jazik*. Doctoral dissertation. Skopje: UKIM.
- Mišeska Tomić, Olga (2008). Balkan Sprachbund aspects of Macedonian Grammar. *Sprachtypologie und Universalienforschung* 61: 162–170.
- Przybylska, Renata (2002). *Polisemia przyimków polskich w świetle semantyki kognitywnej*. Krakow: Universitas.
- Przybylska, Renata (2006). *Schematy wyobrażeniowe a semantyka polskich prefiksów czasownikowych do-, od-, prze-, roz-, u-*. Krakow: Universitas.
- Šarić, Ljiljana (2001). Prepositional categories and prototypes: contrasting some Russian, Slovenian, Croatian and Polish examples. *Glossos* 1: <http://seelrc.org/glossos/>
- Šarić, Ljiljana (2008). *Spatial Concepts in Slavic: A Cognitive Linguistic Study of Prepositions and Cases*. Wiesbaden: Harrassowitz Verlag.
- Šarić, Ljiljana (2010). Cognitive semantics and analysis of prefixes. *Zbornik radova Njegoševi dani* 2: 341–350.
- Scatton, Ernest A. (1983). *A Reference Grammar of Modern Bulgarian*. Columbus, OH: Slavica Publishers.
- Shull, Sarah (2003). *The Experience of Space. The Privileged Role of Spatial Prefixation in Czech and Russian*. Munich: Otto Sagner.
- Sicherl, Eva (2007). Radialni model angleškega predloga *on* v odnosu do slovenskega predloga *na*. *Slavistična revija* 55: 559–579.
- Sokolova, Svetlana, Olga Lyashevskaya, Laura A. Janda (forthcoming). The locative alternation and the Russian ‘empty’ prefixes: A case study of the verb *gruzit* ‘load’. Dagmar Divjak, Stephan T. Gries, eds. *Frequency Effects in Cognitive Linguistics. Vol. 2: What Statistical Effects Can(not) Explain*. Berlin: Mouton de Gruyter.
- Tchizmarova, Ivelina (2005). *Verbal Prefixes in Bulgarian and Their Correspondences in American English: A Cognitive Linguistic Analysis*. Doctoral dissertation. Muncie, IN: Ball State University.
- Tchizmarova, Ivelina (2006). A cognitive linguistic analysis of the Bulgarian verbal prefix *pre-* ‘across, through, over’. *Glossos* 7: 1–49.
- Topolińska, Zuzanna, Eleni Bužarovska (2008). Introduction. *Sprachtypologie und Universalienforschung* 61: 97–104.
- Toporišič, Jože (2000). *Slovenska slovnica*. Maribor: Obzorja.
- Tyler, Andrea, Vyvyan Evans (2007). *The Semantics of English Prepositions: Spatial Scenes, Embodied Meaning and Cognition*. Cambridge, MA: Cambridge University Press.
- Žele, Andreja (2009). Predponsko-predložna razmerja pri slovenskih glagolih. *Riječ* 15.1: 151–170.

