

The verbal prefix *u-* in Bulgarian and Croatian

Ljiljana Šarić, Svetlana Nedelcheva

University of Oslo (ILOS) (Norway), Shumen University (Bulgaria)

This study compares the semantic networks of the verbal prefix *u-* in two South Slavic languages, Bulgarian (Blg.) and Croatian (Cro.), in a cognitive linguistics framework using two databases of prefixed verbs drawn from dictionaries and corpora. We point to similarities and overlapping categories in the semantic networks of *u-* in Blg. and Cro., as well as to differences. When accounting for the differences, we consider prefixes semantically similar to *u-* (within one language and in both languages) that combine with the same base verbs forming either prefixed near-synonyms (e.g., Blg. *uvehna*, *zavehna*, *izvehna* ‘with(er), fade’; Cro. *umastiti*, *omastiti*, *zamastiti* ‘grease, stain’) or prefixed verbs that are only seemingly near-synonyms (e.g., Blg. *ukaža* ‘indicate, show’, *okaža se* ‘turn out’; Cro. *ocrniti* ‘denigrate, slander’, *ucrniti (se)* ‘color black, wear black’). We examine how the meaning networks of individual semantically related prefixes (e.g., *u-* and *za-*, *iz-*) overlap within one language and across the two languages, as well as how different construals of the same event affect the prefix choice.

Keywords: verbal prefixes, prefixal semantics, the prefix *u-*, Bulgarian/Croatian

1. Introduction¹

There are few comparative studies of Slavic prefixes; see Šarić and Tchizmarova (2013) on *od-/ot-*, Šarić and Nedelcheva (2015) on *o(b)-*, Dickey (2011, 2012) on *po-*, Dickey (2005) on *s-/z-*, Dickey (1999) on *za-*, and Mitkovska and Bužarovska (2012) on *nad-*. Townsend (1997) concentrates on the prefix *u-* in Czech and Russian from a very general perspective, comparing prefixed verbs that indicate positive and negative modality. He points to a need for further study and a comparison of *u-* throughout Slavic. We focus on the verbal prefix *u-* in Cro.² and Blg. Comparisons of prefixal meanings within a group of very similar languages, such as South Slavic, are interesting because similar languages do not necessarily follow the same prefixation model. As a matter of fact, they show intriguing differences in the conceptualization of space. A systematic account of these differences can be provided by conducting research on the structure and meaning of Slavic prefixed verbs. A comparative account is also beneficial in teaching: students of Slavic expect to find similar prefixes with similar base verbs across Slavic (these expectations, however, are often not fulfilled), and they hope to observe many similarities in the semantic networks of prefixes in two Slavic languages belonging to the same group.

¹ This analysis is part of a broader project investigating verbal prefixes in South Slavic.

² The following abbreviations are used in this article: Cro. = Croatian, Blg. = Bulgarian, OCS = Old Church Slavic, LCS = Late Common Slavic.

However, we encountered unexpected divergences in prefix choice even with the same verb stems.

Below we provide some reflections on the *u-* verbs in Slavic and their relation to aspectual issues. We then present our data and compare *u-* verbs in Cro. and Blg., discussing the meaning of the verbal prefix *u-*.

1.1 The prefix *u-* in Slavic

Przybylska (2006) lists twenty-eight meanings of *u-* in Polish verbs, relating seventeen to a scenario in which trajectors³ move away from landmarks' regions, and eleven to a scenario in which trajectors' paths are directed toward landmarks. In the former scenario, landmarks experience reduction, and in the later supplementation. Townsend (1997) identifies eleven groups of *u-* verbs in Czech: some of these groups are based on meaning, and others on derivation patterns. Janda *et al.* (2013) identify ten meanings of Russian *u-* verbs and relate them to two clusters. The first one associates MOVING INTO with MOVING DOWNWARDS, and the second focuses on moving objects away. These studies show that, in Slavic, the prefix *u-* is a complex meaning unit.

In contemporary Cro., the situation is even more complex because the prefix *u-* is a phonetic and semantic coalescence of two distinct concepts: one relates to containment (< LCS **v̄b*), and the other pertains to movement away and spatial proximity (< LCS **u*); see, for instance, Derksen (2008: 506, 530), Skok (1973: 533), and HJP.⁴ This coalescence is a result of the phonetic development of the Štokavian dialect;⁵ that is, the dialect that standard Cro. is based on: in Štokavian, **u* and **v̄b* merged into a single form (e.g., LCS **us̄n̄ont̄i* 'fall asleep' and **v̄bz̄ot̄i* 'pick up, take' both have the prefix *u-* in modern Cro: *usnuti*, *uzeti*). In the spatial domain, the verbal prefix *u-* thus subsumes containment and movement away (ablativity).⁶ Following general cognitive linguistics assumptions related to spatial meanings of prefixes, we expect that the containment and movement away meanings will extend into non-spatial domains and transform in that process. We assume that metaphorical and metonymic links play an important role in the transformation of prefixes' spatial meanings, and that spatial schemas underlie their non-spatial meanings.

The result of this coalescence is a complex semantic network of the prefix *u-* with some rather different meanings: *u-* verbs in Cro. relate to two contrasting spatial schemas: INTO and AWAY. The relation of these schemas to each other

³ We use the term *trajector* (TR) for the more prominent, mobile participant in a (spatial) event, and *landmark* (LM) for the secondary, usually immobile and less salient participant. There are slightly different views on TR/LM alignment in transitive constructions, and different terminology. For Nessel (2010: 673), sentences with transitive prefixed verbs contain two TRs. The prefix's TR is the direct object, and the causer is the verb's TR. Hampe (2002) uses the term *subtrajector* for the direct-object NP. Belaj (2011) terms the causer the *agentive trajector* and the direct object the *trajector*.

⁴ Croatian Language Portal (*Hrvatski jezični portal*, HJP). For further information on (and access to) HJP and the corpora, see URLs given at the end of the references.

⁵ The Neo-Štokavian dialect forms the dialect basis of contemporary Cro.

⁶ Already in OCS, the ablative role of *u-* was assumed by the preposition *sv̄*. The ablative meaning continues its (limited) existence in some OCS prefixed verbs (e.g., *u-myti*). Some of these *u-* verbs continued their existence in different Slavic languages: seventy such *u-* verbs exist in Polish; see Przybylska (2006: 278) following Słowski (1937).

and how they motivate various meanings in the semantic network of *u-* verbs is examined in Šarić (2014).

The situation in contemporary Blg. is different—although, as shown below, it is not necessarily less complex with regard to the prefix meaning network: LCS **v̄b* and LCS **u* have not merged.⁷ *V-* and *u-* in Blg. are two different prefixes: the first, *v-*, relates to the containment schema, and the second, *u-*, to the ablative schema, at least etymologically: compare, for instance, the verbs *vletja* ‘fly into’, *vstāppja* ‘step in, enter’, and *unesa (se)* ‘carry away; be lost in reverie’. Interestingly, some base verbs combine with both prefixes, yielding prefixed verbs with distinct meanings; for example, *vāvleka* ‘draw (into)’ / *uvleka (se)* ‘carry away’, *vāveda* ‘lead in’ / *uveda (se)* ‘bend down’ (see Section 3).⁸

In analyzing the semantic networks of the verbal prefix *u-* in Cro. and Blg., we follow the cognitive linguistics assumptions that approach prefixes as coherent networks of related meanings (e.g., Janda, 1986; Twardzisz, 1994; Tabakowska, 2003; Przybylska, 2006; Belaj, 2008) and a standard understanding of metaphor in cognitive linguistics studies of spatial prefixes (e.g., Janda and Nessel, 2010). We consider the analyses of Russian, Czech, and Polish *u-* (Townsend, 1978, 1997; Klenin, 1983; Przybylska, 2006), which provide details about the common Slavic semantics of this prefix: all of these analyses indicate that the prefix *u-* relates to a certain type of movement away in Slavic, and point toward the different productivity of the meaning ‘move away’ in motion verbs, as well as different paths of extension of that meaning into non-spatial domains in different Slavic languages.⁹

1.2 *U-* verbs and aspect

The majority of Cro. and Blg. verbs are either perfective or imperfective, and a small number are biaspectual (e.g., borrowed verbs, such as Cro. *-irati* verbs; e.g., *regulirati* ‘regulate’). Cro. and Blg. verbs are always perfective (marked form) or imperfective (unmarked form). The aspect of these forms is signaled morphologically: the morphological expression of the aspect is achieved by perfectivizing prefixes (e.g., Cro. and Blg. *u-*) and imperfectivizing suffixes (e.g., Cro. *-iva-*, Blg. *-va-*). Verbs with no aspectual affixes are typically imperfective (e.g., Cro. *biti*, Blg. *bija* ‘beat’), verbs with prefixes are usually perfective (e.g., Cro. *ubiti*, Blg. *ubija* ‘kill’), and verbs with suffixes are typically imperfective (e.g., Cro. *ubijati*, Blg. *ubivam* ‘kill’). However, there are also unaffixed perfective verbs (e.g., Cro. *dati* ‘give’, Blg. *vārža* ‘tie up’) and prefixed imperfectives (e.g., Cro. *ubijati* ‘kill’, Blg. *vāržvam* ‘tie up’), as well as a restricted number of semelfactive suffixed perfectives (e.g., Cro. *dahnuti* ‘breathe once’, Blg. *legna* ‘lie down’).

The grammatical function of prefixes, “to transform imperfective verbs into perfective” (Kostov, 1939: 120), was widely studied in the past (e.g.,

⁷ As a rule, these two units have two distinct successor prefixes in the majority of Slavic languages. The two original units occasionally merge into one modern unit in Czech as well (see, e.g., Naughton, 2005: 257).

⁸ This issue will be a subject of a future corpus-based study.

⁹ We will reflect on some differences between Cro., Blg., and other Slavic languages in the following sections, but a detailed study of the similarities and differences is beyond the scope of this article.

Ivanova, 1966). The perfectivizing role of prefixes has been emphasized to such an extent that some of the prefixes were considered semantically ‘empty’ (Andrejčin, 1944: 198–199). We apply a different approach, adhering to the Overlap Hypothesis, which relates to the meaning of prefixed perfective verbs. According to some scholars (e.g., Andrejčin, 1944), prefixes in perfective verbs are devoid of meaning in some situations because they simply perfectivize imperfective verbs and do not modify their meaning as part of grammatical prefixation (e.g., Cro. *raditi* ‘work’ – *uraditi* ‘finish work’, Blg. *mija* ‘wash’ – *umija* ‘wash up’), which they obviously do in cases of semantic prefixation (e.g., Cro. *biti* – *ubiti*, Blg. *bija* – *ubija* ‘beat – kill’).¹⁰ The Overlap Hypothesis relates to prefixed perfective verbs derived from simple imperfectives (e.g., *u-raditi*) and states that prefixes have meaning in these perfective verbs: however, the prefixes seem to be devoid of meaning because the meaning of the prefix in some combinations overlaps with the meaning of the simplex verb, thus resulting in an illusion of emptiness. This hypothesis can be found in Vey (1952), van Schooneveld (1958), and Isačenko (1960; with references to Czech and Russian), and it has recently been elaborated by Janda (e.g., 2007; Janda *et al.*, 2013). Janda (e.g., 2007: 609) introduces three types of perfective verbs related to three different construals of completability: natural perfectives, specialized perfectives, and complex act perfectives: natural perfectives describe a logical completion of an activity (e.g., *uraditi*, *umija*) and specialized perfectives add further semantic content (e.g., *ubiti*, *ubija*),¹¹ whereas complex act perfectives indicate temporally limited actions (e.g., *zapeja* ‘start singing’). Janda presents an alternative to the traditional aspectual pair model of Russian verbs: a cluster model that recognizes that aspectual pairs are embedded in larger clusters of aspectually related verbs. We assume that the Overlap Hypothesis can explain phenomena described as “plain perfective” usages; see Townsend (1997: 328) on Czech *u-* verbs of the type *umýt* ‘wash’.

A few remarks are necessary on the morphological structure of *u-* verbs, which are analyzed below.¹² *U-* verbs are often a result of prefixation of imperfective simplex base verbs, which are frequently derived from nouns or adjectives,¹³ as in (A) and (B). In some instances of (B), perfective verbs prefixed with *u-* are derived by adding a prefix and suffix simultaneously to nouns or adjectives: the unprefixed verb (e.g., **očiti*) does not exist. In (A) and in some instances of (B), prefixed *u-* perfectives can be imperfectivized by infixation, and so prefixation and suffixation result in derivation chains. In some other cases (see C), *u-* verbs are derived from imperfective simplex verbs and perfectivize them. In some infrequent cases (see D), perfective *u-* verbs are

¹⁰ Sussex and Cubberley (2006) use the distinction grammatical-semantic prefixation.

¹¹ In contrast to specialized perfectives, natural perfectives in Cro. cannot normally be imperfectivized (e.g., **urađivati* from *uraditi* ‘finish work’ does not exist). In Blg., secondary imperfectives can be derived from almost all perfective verbs. The most common suffix is *-(u/a/ja)va-*. However, in a number of exceptions the suffix *-uva* is word formative; for example, *zim-uva-m* ‘spend the winter’, *sān-uva-m* ‘dream’, etc. These verbs cannot be imperfectivized.

¹² Following standard dictionary practice, Cro. verbs are given in their perfective form, unless there is a difference in meaning between the perfective and imperfective forms. Both the perfective and imperfective forms of Blg. verbs are listed in dictionaries. Their meanings are the same, and so they are marked with = (e.g., pf. *uvija* = impf. *uvivam* ‘wrap up, wind’). In this analysis, Blg. verbs are given in their prefixed perfective form.

¹³ Deadjectival *u-* verbs are highly productive in Cro. and Blg.; moreover, both have numerous *u-* verbs derived from nouns.

derived from perfectives: in these cases, the prefix *u-* apparently modifies the meaning of unprefixated verbs (see *platiti*, *vārža*). Finally, *u-* verbs are occasionally not related to any contemporary simplex verb or to an existing lexical unit (see E).

- (A) Cro. *bijel* ('white', adj.) → impf. *bijeliti* → pf. *ubijeliti* → impf. *ubjeljivati*
 Blg. *raven* ('equal', adj.) → impf. *ravnja* → pf. *uravnja* → impf. *uravnjavam*
- (B) Cro. *skladište* ('storage', noun) → impf. *skladištiti* 'store' → pf. *uskladištiti* 'store in(to)'
oko ('eye', noun) → pf. *uočiti* 'notice' → impf. *uočavati*
 Blg. *vonja* ('stink', noun) → impf. *vonja* 'stink' → pf. *uvonja* 'stink all over' → impf. *uvonjavam*
gost ('guest', noun) → pf. *gostja* 'treat' → pf. *ugostja* 'treat' → impf. *ugoštavam*
- (C) Cro. *graditi* 'build' impf. → pf. *ugraditi* 'build in(to)' → impf. *ugrađivati* 'build in(to)'
 Blg. *vārtja* 'turn, revolve' impf. → pf. *uvārtja* 'twist, beat about the bush'
- (D) Cro. *dahnuti* pf. 'breathe once' → *udahnuti* pf. 'breathe in' → impf. *udahnjivati*
platiti pf. 'pay' → pf. *uplatiti* → impf. *uplaćivati*
 Blg. *vārža* 'tie up' pf. → pf. *uvārža* 'tie up, bind' → impf. *uvārzvam*
- (E) Cro. *udariti* 'hit'¹⁴
 Blg. pf. *uluča* 'hit' → impf. *ulučvam*

1.3 Data

For Cro., there is no publicly available corpus extensive and representative enough that allows advanced searches and that could serve as a truly reliable source for research. The corpora of reasonable scope that were used in this study have limitations in their content and search functions (e.g., *Hrvatska jezična riznica*, Croatian Language Repository).¹⁵ The *Croatian National Corpus* (CNC) mainly includes newspapers and magazines. However, it allows advanced searches, which we used to generate a list of 622 perfective and biaspectual *u-* verbs. In addition, two dictionaries were consulted: Anić (1998) and Bujas (2001). 320 verbs were collected from Anić. An additional 173 verbs, mainly from spoken language, were gathered from Bujas (2001), who includes many frequent colloquial verbs that other sources ignore.

After eliminating the double occurrences, we created a database that contains 721 verbs. Encompassing standard frequent vocabulary (Anić), spoken language (Bujas), and newspapers and literary sources (CNC), the scope of the database of *u-* verbs is broad enough to draw generally valid conclusions.

The Blg. verb corpus used in this research was developed in three stages. First, all of the verbs prefixed with *u-* and *v-* were extracted from Pashov's

¹⁴ Inherited from LCS and OCS. The verb goes back to LCS *dъrati* (Russian *drat'*, Polish *drzeć*) ← PIE *derH-* (Greek *derein*). See HJP, keyword *derati*.

¹⁵ The corpus seems to mainly include older literary texts, only one newspaper, and some textbooks. It allows only simple searches and does not allow extraction of all of the verbs prefixed with the same prefix.

(1966) exhaustive study on Blg. verbs. His 147 *u-* verbs and 107 *v-* verbs were compared to the verb entries of two dictionaries: *Eurodict* (an online multilingual dictionary containing 60,000 Blg. words) and *Rečnik na bālgarskija ezik* (Bulgarian Dictionary).¹⁶ Some were removed as obsolete (e.g., *ugazja* ‘trample on’ and *utepam* ‘kill’) and others were added to the *u-* and *v-* databases, respectively.¹⁷ In the third stage, the verbs’ frequencies were checked in the *Bulgarian National Corpus* (BulNC).

The BulNC core consists of approximately 1.2 billion words and more than 240,000 texts, which makes it much larger than the two Cro corpora. However, the difference in size is not important for our analysis because we do not work with statistical data. BulNC is representative because of the large number of tokens and the different styles of texts included: administrative, popular science, fiction, journalism, informal, and so on. Although we encountered some problems when using the lemma application, BulNC proved to be very useful for checking the verbs’ frequencies. Verbs with zero frequency were excluded from the material. Finally, we established databases of 116 *u-* verbs and 105 *v-* verbs.

2. The semantic network of Bulgarian and Croatian *u-* verbs

Based on an examination of all of the verbs from our databases, we present the semantic networks of *u-* verbs in Blg. and Cro. in Figures 1 and 2, respectively. The figures include representative verbs only. The Cro. verbs are linked to the spatial schemas INTO and AWAY. Šarić (2014) argues that these schemas overlap, and therefore a great number of verbs are linked to both. The corresponding Blg. verbs are prefixed with either *v-* (those included in Table 1 and linked to the containment schema) or *u-*. Most base verbs are polysemous and do not uniquely signal the meaning given in the heading. That meaning is supplied by *u-* (*v-* or another prefix) or arises in the combination of *u-* (*v-* or another prefix) and the base verbs. Given the fact that many verbs relate to more than one meaning, they can theoretically appear more than once in the networks. The shapes representing individual meanings are discrete units in our figures; however, as we argue in the analysis, many meanings overlap and are difficult to separate from each other.

We particularly concentrate on differences between the two languages in focus; that is, spatial and non-spatial scenarios in which Blg. and Cro. use different prefixes. We also exemplify cases of prefix variation within a single language in the discussion below the networks.

¹⁶ This is a multivolume dictionary of Blg. and it is the largest and most representative thesaurus of Blg. Fourteen volumes have been published so far, which include a total of 112,686 lemmas.

¹⁷ Bound bases are included in the corpus. When combined with *u-*, they are counted as prefixed verbs; for example, **dvoja* → *udvoja* ‘double’ and **godja* → *ugodja* ‘indulge, please’.

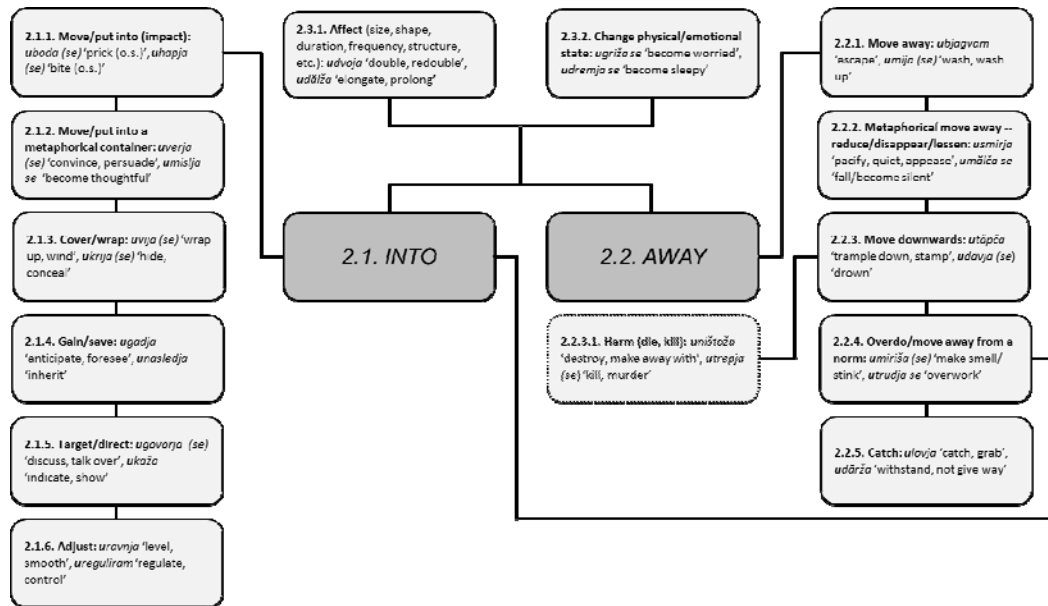


Figure 1. The semantic network of Blg. *u-* verbs.

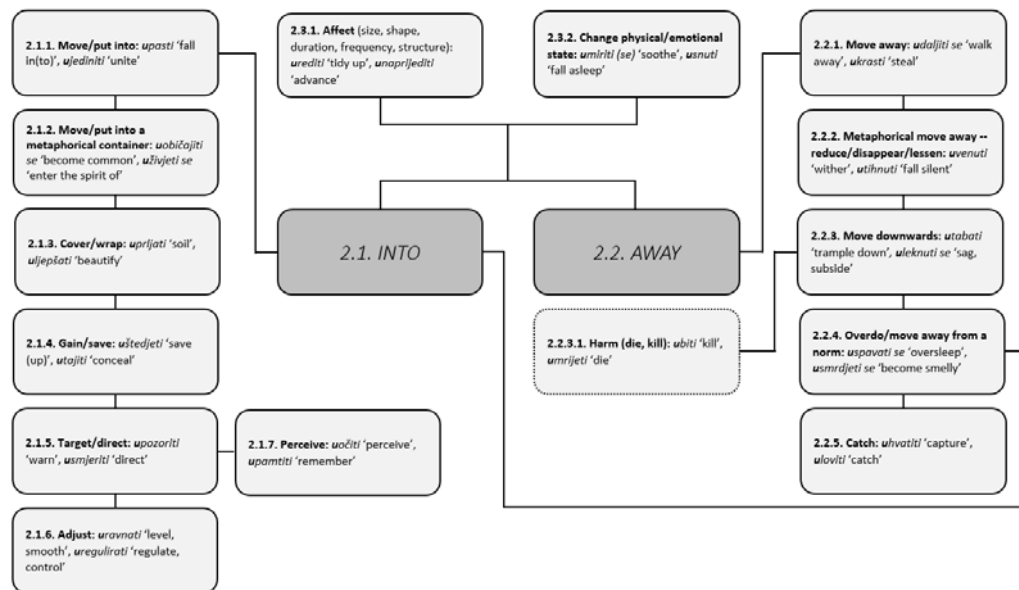


Figure 2. The semantic network of Cro. *u-* verbs.

2.1 INTO SCHEMA

2.1.1 MOVE/PUT INTO

This spatial meaning is realized with intransitive and transitive motion verbs expressing movement into containers or putting objects into containers (see Table 1). Cro. *u-* verbs in this group regularly have equivalents in Blg. *v-* verbs; see Table 1.

Table 1. MOVE/PUT INTO meanings.

(A) motion of humans in space, self-motion:	Cro. <i>ući</i> ‘go in(to)’, <i>upasti</i> ‘fall in(to)’, <i>useliti (se)</i> ‘move in(to)’, <i>uskočiti</i> ‘jump in(to)’, <i>uletjeti</i> ‘fly in(to)’, <i>uroniti</i> ‘dive in(to)’, <i>ukorijeniti se</i> ‘take root’, <i>usidriti se</i> ‘anchor’	Blg. motion of humans in space, self-motion: <i>vletja</i> ‘fly into’, <i>vstāpja</i> ‘step in, enter’, <i>vkaram</i> ‘get in’, <i>nastanja (se)</i> , <i>zaselja (se)</i> ‘move in(to)’, ‘settle down’, <i>vkorenja (se)</i> ‘root’, <i>zakotvja (se)</i> ‘anchor’
(B) blend, mix:	<i>uklopiti (se)</i> ‘blend in(to)’, <i>ujediniti (se)</i> ‘unite’, <i>umiješati (se)</i> ‘mix in(to)’, <i>uvezati</i> ‘bind’, <i>utkati</i> ‘weave into’	<i>vmākna (se)</i> ‘stick into’, <i>vmesja (se)</i> ‘fit into’, <i>podvārža</i> ‘bind’, <i>sduža (se)</i> ‘unite, bring together’
(C) inhale, absorb:	<i>udahnuti</i> ‘inhale’, <i>usisati</i> ‘suck in’	<i>vdišam</i> ‘inhale’, <i>vdāhna</i> ‘breathe in’
(D) put into, caused motion:	<i>uključiti (se)</i> ‘bring in’, <i>upisati (se)</i> ‘write in(to)’, register’, <i>uložiti</i> ‘put in(to)’, <i>uplatiti</i> ‘pay in’, <i>ugraditi</i> ‘build in(to)’	<i>vpiša</i> ‘enter (in); insert’, <i>vāvleka</i> ‘draw (into); drag (into)’, <i>vgradja</i> ‘build in; wall in’, <i>vsadja</i> ‘implant’, <i>vleja (se)</i> ‘pour in(to)’

The subgroups of *u-/v-* verbs in Table 1 express insertion, joining, blending, inhaling, engraving, and so on; these meanings are already implied in the base verbs. The prefixation pattern is thus in accordance with the Overlap Hypothesis (see Section 1.1). Intransitive verbs in this subgroup refer to entering container-like objects, but imply different speed and/or manners of motion. At the endpoint of motion, the LMs in constructions involving these verbs act as containers for moving TRs. Some verbs from Table 1 can be used with the reflexive *se*. In their reflexive form, the Cro. verbs *uklopiti se*, *ujediniti se*, and *umiješati se* can apply to concrete and metaphorical motion (of humans), and thus belong to the (A) subgroup. The same applies to some verbs from (D) when used with the reflexive particle *se*.

With transitive verbs, the causer is an agent or a natural force that directly causes the TR to move along a path designated by the prepositional phrase. The agents transfer their physical energy directly to the patients so as to achieve some desired effects. Many verbs in this group are verbs of placement: the prefix *u-/v-* in these verbs indicates the caused movement of objects into a spatial or abstract container.

For the meaning MOVE/PUT INTO expressed in numerous Cro. *u-* verbs, Blg. uses *v-*. However, verbs of impact, implying that a TR ‘moves into’ a human or animal body, are an exception: both languages use *u-* verbs. Consequently, the Cro. *u-* verbs *ubosti (se)* ‘prick (o.s.)’ and *ugristi* ‘bite’ have their equivalents in Blg. *uboda (se)* ‘prick (o.s.)’ and *uhapja* ‘bite’. These verbs imply contact and harm. Przybylska (2006: 258) relates similar Polish verbs to

the meaning “approach and make punctual contact with a surface”. Her category also includes, in addition to verbs meaning ‘bite, sting, stab’, *ucaľować* ‘kiss’, for instance. Townsend (1997: 343) provides some examples of impact *u-* verbs in Czech (e.g., *uřtknout* ‘sting’) in his broader category “harm”. The HARM category is also attested in Russian. Janda *et al.* (2013) list such verbs as *ujazvit’* ‘sting, hurt’ and *uřćemit’* ‘hurt by pinching’. Thus, *u-* verbs meaning ‘bite, sting’ seem to be common across Slavic.

In some situations, Blg. does not choose *v-* when Cro. uses *u-* but another prefix; for instance, *na-* or *za-* (e.g., Cro. *udrobiti* – Blg. *nadrobjja* ‘crumble’;¹⁸ *useliti se* – *zaselja se* ‘settle’; *ustolićiti* – *nastanja, naznaća* ‘appoint, take on’), or a prepositional construction with the preposition *v* ‘in’ and a verb, prefixed or not (e.g., *upasti* ‘fall in(to)’ – *padam v*, *uskladiřtiti* ‘store in(to)’ – *skladiram v*, *uliti* ‘pour in(to)’ – *naleja v*).

With motion verbs proper (self-motion, locomotion verbs), Cro. can add *u-* to any base verb, regardless of the manner of motion, to render an acceptable prefixed motion verb (e.g., *ušuljati se* ‘sneak into’, *uteturati* ‘stagger into’, *upuzati* ‘crawl into’; *ujedriti, uploviti* ‘sail into’, etc.); in some of these cases, Blg. uses a verb with a different prefix, and/or prefers to express the same motion events using prepositional phrases with the general motion verb *vljaza* ‘go in’ (compare, e.g., Cro. *usidriti se* ‘anchor’ with Blg. *spuskam kotva, zakotyjam; ujedriti* ‘sail into’, and *uploviti* – *vlizam v pristaniřte* ‘dock’ with *propālzja v* ‘creep into’).

In some scenarios that imply “put into” (placement) in Cro., the final “destination” is expressed by the nouns from which *u-* verbs are derived (compare the Cro. nouns *sol* ‘salt’, *tamnica* ‘prison’, and *tabor* ‘camp’, and the Cro. verbs *usoliti* ‘preserve in salt’, *utamnićiti* ‘imprison’, and *utaboriti se* ‘encamp, pitch a camp/tent’).¹⁹ Blg. does not follow the same pattern and seldom derives similar verbs from nouns: *osolja* is used for ‘put in salt, preserve in salt’ (see further Section 3). For *utamnićiti*, Blg. uses *zatvarjam, hvārljam/tikam v zatvor/tāmnica*, and *pravja lager* for *utaboriti se*²⁰ ‘encamp, pitch a camp/tent’. Generally, the Blg. MOVE/PUT INTO schema does not match the Cro. schema. No Blg. *u-* prefixed verbs of movement belong to this group. The INTO meaning of *u-* in Blg. is represented only in the metaphorical and abstract domains (see 2.1.2–2.1.6).

2.1.2 MOVE/PUT INTO A METAPHORICAL CONTAINER

Many Cro. verbs expressing movement into concrete containers are also used with metaphorical containers (e.g., *unijeti* ‘carry in(to)’, *unijeti se* ‘become absorbed in’). Some other verbs imply movement into a metaphorical container only: for instance, *uživjeti se* ‘enter the spirit of’, *udomaćiti se* ‘become acclimatized’. Many desubstantival change-of-state verbs (which thus can also be classified as CHANGE OF PHYSICAL/EMOTIONAL STATE, see 2.3.2) express

¹⁸ Cro. *nadrobiti* has a meaning of accumulation.

¹⁹ According to Townsend (1997: 335), in factitive and accusative Russian verbs, *u-* plays an adjunct role to the transitivizing suffix *-i-*. Factitive verbs derived from adjectives are numerous in Russian (e.g., *uglubit’* ‘make deeper’), as are accusative verbs derived from nouns (e.g., *udoćerit’* ‘adopt a daughter’) and nominal collective stems of numerals (e.g., *udvoit’* ‘double’).

²⁰ Regarding *utamnićiti* and *utaboriti se*, Blg. has two obsolete nouns with the same stem and meaning, *tāmnica* and *tabor*, but no verbs derived from these nouns.

movement into a metaphorical container: for instance, with *uvjeriti* ‘convince’, *vjera* ‘belief’ is conceptualized as a container a person can be brought into. The corresponding Blg. verbs with this meaning are prefixed with *v-* (*višljaja* ‘drive a lesson home, rub in’, *vživeja se* ‘enter into, live over’, *vselja (se)* ‘inspire, implant’, etc.). With some Blg. *u-* verbs associated with a change of state, the new state can be interpreted as a metaphorical container (e.g., *umislja se* ‘become thoughtful, muse’, *umālča se* ‘fall/become silent’). These examples clearly show that the meanings (MOVE/PUT) INTO A METAPHORICAL CONTAINER and AFFECT/CHANGE OF PHYSICAL/EMOTIONAL STATE (see 2.3.1 and 2.3.2) overlap.

2.1.3 COVER/WRAP

The verbs expressing COVER/WRAP can be roughly divided into two groups. The first one refers to covering the LM either with some liquid (e.g., Cro. *uprskati* ‘spatter’²¹) or with a substance, or smaller objects and particles (e.g., Cro. *uprljati* ‘soil’).²² In some cases, covering makes the LM appear more beautiful than before (e.g., Cro. *ukrasiti*, *uljepšati* ‘beautify’; Blg. *ukrasja* ‘adorn, beautify’, *uvenčaja* ‘crown’). Apart from the meaning ‘put a crown on somebody’s head’, Blg. *uvenčaja* has an additional metaphorical meaning: ‘culminate with’. Reaching a climax or a topmost position is seen as conceptually related to wearing a crown.

A subgroup of verbs denotes ‘wrapping’ the LM completely or partially; for instance, Cro. *umotati* ‘wrap up’, *upakirati* ‘pack up’, *ukoričiti* ‘put in hardback’; Blg. *uvija* ‘wrap up, wind’, *uvārža* ‘tie up, bind’.

2.1.4 GAIN/SAVE

The relation between the meaning GAIN/SAVE and the INTO schema is best explained by the fact that gaining something—for instance, experience, time, or speed—as well as saving money, energy, or electricity can be interpreted as taking something into a “container” and keeping it. The TR acquires something and puts it INTO its own possession. This entity can be either concrete or abstract; therefore the ‘storage space’ can also be metaphorical. This is not a very productive category in Blg. and Cro. The verbs expressing this meaning originate from base verbs with different roots (e.g., Cro. *uštedjeti* ‘save (up)’, *utržiti* ‘take in’, *ušićariti* ‘profit’; Blg. *ugadja* ‘anticipate, foresee’, *unasledja* ‘inherit’). The Cro. verb *utajiti* ‘conceal’ shares its root with the Blg. verb *taja* ‘hide, conceal’, but Blg. *utaja* has acquired the metaphorical meaning ‘settle, be deposited’. Therefore, it is put into the meaning category MOVE DOWNWARDS.

2.1.5 TARGET/DIRECT

The TARGET/DIRECT verbs denote movement within limits, up to a certain point. Therefore, the TR focuses on a particular LM, which is the goal of the activity

²¹ The abstract meaning of this verb is ‘spoil’.

²² Interestingly, in his account of the modal meanings of Czech and Russian *u-* verbs, Townsend (1997: 333) singles out the meaning ‘dirt’ (e.g., Czech *umastit* ‘grease’). We believe that in the case of similar verbs ‘dirt’ relates to the verb base (the noun *mast*) and context, not the prefix. We also consider that verbs such as Cro. *umastiti* express a more general meaning, COVER.

and moves INTO that direction. Many verbs in this category share the same stem and have very similar meanings in Cro. and Blg.; for example: *uputiti* ‘give directions’ – *upătja* ‘direct, show the way to, instruct’; *ukazati* ‘point to’ – *ukaža* ‘indicate, show’. However, some verbs do not share stems; compare, for instance, Cro. *usmjeriti* ‘direct’ and Blg. *upătja*.

2.1.6 ADJUST

With ADJUST verbs, the TR aims at a particular position and performs the activity designated by the verb in order to move INTO that particular position. The verbs that indicate leveling and adjustment are, for instance, Cro. *uravnati* – Blg. *uravnja* ‘level, smooth’, *uregulirati* – *ureguliram* ‘regulate, control’, *uravnotežiti* ‘balance’ – *uravnovesja* ‘balance, counterpoise, counterbalance’, and *ugovoriti* ‘agree, arrange, settle, fix, set up’ – *ugovorja* ‘discuss, talk over’.

2.1.7 PERCEIVE

In the PERCEIVE category, TRs are not active doers, but rather patients or receivers. Something happens, and TRs perceive it and thus become aware of it directly through their senses, especially sight or hearing. Therefore, they take in the understanding of a particular fact. A small number of Cro. verbs fall into this group; for instance, *uočiti* ‘perceive, spot’, *ugledati* ‘spot’, *uvidjeti* ‘realize’, and *upamtiti* ‘remember’. For some of these, near-equivalents with *za-* exist (e.g., *zapamtiti* ‘remember’). Interestingly, *uvidjeti* has a near-synonym in *shvatiti*, the stem of which (*hvat-*) relates to the physical domain of touching, whereas *gled-* ‘look’ relates to the domain of vision alone. No *u-* verbs belong to this group in Blg. Instead, the prefixes *za-* and *s(ă)-* are attached to the equivalent stems. *Zapametja*, *zapomnja* ‘remember’ correspond to the Cro. verb *zapamtiti* ‘remember’. *Săzra* ‘spot, notice’ and *săgledam* ‘see, spot’ belong to the group of momentary verbs and refer to the meaning ‘do once’ together with such verbs as *săgreša* ‘sin, transgress’, *sătvorja* ‘create, make’.

U- is also attested in Russian verbs of perception—for example, *ugljadet* ‘spot’, *uznat* ‘find out’ (see Janda *et al.*, 2013: 35)—and in some Polish verbs meaning ‘see, emphasize, visualize’ (see Przybylska, 2006: 249).

2.2 AWAY schema

2.2.1 MOVE AWAY

The AWAY schema is present only in a limited number of intransitive motion verbs in modern Cro. and Blg. However, it underlies many abstract, metaphorical meanings in both Blg. and Cro.

MOVE AWAY has a weak status in the concrete spatial domain of these two South Slavic languages. As a rule, verbs indicating ablative motion—that is, “motion from”—are prefixed with *od-/ot-* in Cro. and Blg., respectively. This is also the case in Czech: *u-* has yielded to *od-* in conventional motion verbs for basic physical departure in cases in which Russian uses *u-* (Townsend, 1997:

331).²³ In modern Russian, *u-* with an ablative meaning can freely be attached to motion verbs. However, according to Klenin (1983), this is an innovation: although its generally recognized etymological source was ablative, the strictly ablative meaning of *u-* was quite unstable in OCS and Old Russian; these languages do not provide enough evidence of the use of *u-* as a truly ablative verbal prefix (Klenin, 1983: 156, following Kiparsky, 1975). The weak status of MOVE AWAY in Cro. and Blg. is thus not surprising: they align with other Slavic languages in this respect.²⁴

Interestingly, among the few intransitive Cro. motion verbs with *u-* that express ablative motion (e.g., *udaljiti (se)*, *ukloniti (se)* ‘get out of the way’) are those that have Blg. equivalents with *ot-* (e.g., *otdaleča* ‘move away’, *otteglja* ‘draw back, back away’, *otklonja*²⁵ ‘turn aside, draw away’).²⁶ The same applies to *uminuti* ‘disappear’, which more frequently occurs with abstract TRs (e.g., pain) in Cro. than with concrete ones. Blg. equivalents are prefixed with *ot-*, *pre-*, *iz-*, and *na-*: *bolkata otmina*, *otslabna*, *premina*, *izčezna*,²⁷ *namalja* ‘the pain disappeared, lessened, stopped, wore off’. In its concrete spatial meaning of human ablative motion, Cro. *uteći* ‘run away’²⁸ (its near-synonym is *pobjeći*) has equivalents prefixed with *iz-* in Blg. (*izbjagam* ‘run away’, *izplážna se* ‘slip out’, *izmäkna se* ‘get away’). Cro. *umiti (se)* ‘wash one’s face’ corresponds to Blg. *izmija (se)*, whereas Cro. *uvrnuti (se)* ‘twist, move away (from the normal position)’ relates to Blg. *izvārna se*.

The fact that motion constructions with Cro. and Blg. *u-* verbs of intransitive motion do not contain the preposition *u* (which does not relate to ablative motion in the modern languages) contributes to the weaker salience of AWAY. In these constructions, the sources of motion are coded with another preposition (e.g., *od* in Cro. and *ot* in Blg.); compare Cro. *uteći od Ivana* and Blg. *izbjaga ot Ivan* ‘ran away from Ivan’.

U- is productive in both Cro. and Blg. prefixed verbs expressing metaphorical removal and separation (e.g., disappearing, reduction, and lessening); for instance, Cro. *ugasiti (se)* – Blg. *ugasja* ‘put out, extinguish’,²⁹ *uvenuti* – *uvjahna* ‘wither, fade away’, *umrijeti* – *umra* ‘die, pass away’, *utišati se* – *utihna* ‘calm down, die away’. This is also the case in Czech. Townsend (1997) argues that numerous Czech verbs express specific types of removal: the ones used in transitive scenarios (e.g., verbs of stealing), and verbs relating to death, fatigue, and harm, which also relate to movement. In Polish, a few verbs with the meaning ‘harm’ can be found in Przybylska’s (2006) group “complete an action” and “change state” (e.g., *utłuc* ‘kill, beat to death’).

²³ A large group of Polish verbs with *u-* express removal of a specific type: a “gradual removal of certain/smaller quantity from a larger whole” (Przybylska, 2006: 247). This meaning is not attested with Cro and Blg. *u-*, nor is it found in Russian (Janda *et al.*, 2013).

²⁴ Przybylska (2006: 234) lists eleven Polish *u-* verbs of intransitive motion and seven transitive ones (e.g., *uwieść* ‘seduce’), stating that the meaning of *u-* in some of these highly lexicalized units is quite ambiguous.

²⁵ Cro. *otkloniti* means ‘remove, reject’.

²⁶ For the metaphorical meaning of *udaljiti se* indicating psychological distancing, Blg. also uses a verb with *ot-* (*otčuždja se*, corresponding to *otuditi se* in Cro.). The Blg. equivalents of *udaljiti se* also use *na-* and *za-* (*napusna*, *zamina*).

²⁷ Cro. also uses *iz-* (*iščeznuti*) for *izčezna*.

²⁸ Note that the reflexive *uteći se* (archaic) means ‘resort’.

²⁹ This does not mean that other prefixes are impossible; compare Blg. *zagasja*, *izgasja* ‘put out, extinguish’, *povjahna*, *izvjahna* ‘wither, fade away’, and *zatihna*, *stihna* ‘calm down, die away’.

2.2.2 METAPHORICAL MOVE AWAY – REDUCE/DISAPPEAR/LESSEN

Base verbs in this group refer to processes that lead to disappearing and/or reduction in volume. Some verbs indicate reduction in sound (e.g., Cro. *umuknuti* ‘stop speaking’; Blg. *usmirja* ‘pacify, quiet, appease’; *uspokoja (se)* ‘calm, quiet, relieve’) or light (e.g., Cro. *ugasiti (se)* ‘extinguish, turn off’; Blg. *ugasja* ‘put out, extinguish’). This meaning is linked to the meaning ‘die’ (see 2.2.3.1) and MOVE DOWNWARDS.

Przybylska (2006) relates a large cluster of seventeen meanings of Polish *u-* verbs (including verbs of motion) to landmarks’ concrete or metaphorical reduction. Some of the meanings similar to Przybylska’s are rendered by verbs prefixed with *od-* in Cro. (e.g., the meaning “separating outer parts from an object”: Polish *ukruszyć* ‘crumble (away)’). Janda *et al.* (2013: 34) include some Russian verbs of physical impact in this group; for example, *urezat’* ‘cut down, reduce’, *useč’* ‘truncate’.

2.2.3 MOVE DOWNWARDS

Movement down is expressed in Cro. *uleći/uleknuti se* ‘sag, subside’ and *utabati* ‘trample down’. Significantly, the base verbs in this group already imply downward movement: the Overlap Hypothesis is again at work. Apart from the domain of physical movements, a number of verbs expressing metaphorical moving downwards are attested in Blg. (e.g., *uvesja* ‘hang up, suspend’, *uljagam* ‘settle down’, *upadam* ‘decline, decay; go down’; a very similar Cro. verb, *upasti* ‘fall into’, expresses movement into). In verbs such as Cro. *uvenuti* ‘fade’ and *ugasiti se* ‘turn off’ and their Blg. equivalents, *u-* seems to convey the meaning of metaphorical moving away merged with movement down. Significantly, *uvenuti* and *ugasiti se* can metaphorically mean ‘die’. In Blg. the semelfactive perfective *ugasna* metaphorically means ‘die’. (see 2.2.3.1)

Analyzing Russian *u-*, Nessel (2010) observes the importance of movement down in Russian verbs of dying, killing, and harming. Cro. and Blg. share this representation with Russian: the meaning of a group of verbs implying HARM (DIE, KILL) (see 2.2.3.1) in Blg. and Cro. relates to downward movement (e.g., Blg. *udavja (se)* ‘drown’, Cro. *utopiti (se)*).

HARM (DIE, KILL)

This group can be considered a special variant of the more general MOVE DOWNWARDS group. The group is very consistent in both Blg. and Cro: the base verbs combine with *u-* in both languages. The meaning HARM (DIE, KILL) is observable with, for instance, Cro. *ubiti* ‘kill’, *usmrtili* ‘put to death’, and Blg. *ubija* ‘kill’. The bases with which *u-* combines to render this meaning denote negative and destructive processes and actions (typically dying and killing), and negative physical impact (e.g., Blg. *ugnetja* ‘oppress, depress’, *uduša* ‘strangle, suffocate’, *užilja* ‘sting’; Cro. *ugušiti* ‘smother’, *umoriti* ‘murder’). There is a meaning overlap of this group with verbs implying reducing and disappearing, as well as with verbs implying MOVE DOWNWARDS (e.g., Cro. *utopiti (se)*, *udaviti* ‘drown’, Blg. *utāpča* ‘trample down, stamp’). The scenarios these verbs relate to can be conceived of as belonging to the INTO schema as well: the

construal in that case emphasizes causing an entity to enter into a different state conceptualized as a container.

A semantically similar group of verbs seems to be rather numerous in Czech; Townsend (1997) provides examples of many verbs denoting actual physical death as a consequence of an activity, although the generic verb for ‘kill’ in Czech does not have *u-*, but *za-*. These verbs do not have equivalent *u-* verbs in Cro. and Blg. (e.g., *upracovat se* ‘work oneself to death’, *utancovat se* ‘dance oneself to death’). A similar group of *u-* verbs denoting fatigue (Townsend, 1997: 342) is numerous in Czech (e.g., *unudit* ‘bore to exhaustion’; *uskákat se* ‘tire self by jumping’), but almost non-existent in Blg. and Cro. (except for perhaps *umorja (se)*, *umoriti (se)* ‘tire out; get tired’).

2.2.4 OVERDO / MOVE AWAY FROM A NORM

Some of the Cro. and Blg. verbs in this group have very similar base verbs (e.g., Cro. *uspavati se* – Blg. *uspja se* ‘oversleep’, *umoriti se* – *umorja se* ‘become tired’, *usmrdjeti se* – *usmārdja se* ‘become smelly’ and its Blg. synonyms *umiriša se* ‘make smell/stink’, *uvonja se* ‘stink all over’). Some verbs that can be put in this group also relate to MOVE INTO (e.g., Cro. *uspavati* ‘put to sleep’, demonstrating that the AWAY and INTO schemas overlap).

2.2.5 CATCH

A metaphorical link relates this meaning to the spatial schema of movement away: caught objects are removed from their original locations. Furthermore, caught objects are under someone’s control (e.g., Cro. *uhititi* ‘arrest’, Blg. *ulovja*³⁰ ‘catch, grab’). Some verbs that can be put in this group also relate to MOVE INTO (e.g., Cro. *utamničiti* ‘imprison’), demonstrating that the AWAY and INTO schemas overlap.

2.3 Abstract meanings linked to both INTO and AWAY

2.3.1 AFFECT

The verbs in this group refer to a metaphorical movement away from some previous state (e.g., sadness) into a new one (e.g., comfort: Cro. *utješiti*, Blg. *uteša* ‘comfort’), which links them to the AWAY schema. However, if the construal emphasizes the new state conceptualized as a container, this meaning can also be linked to INTO. When put into containers, objects are easy to influence and control. Many verbs in this group also refer to influencing, persuading, and controlling (e.g., Cro. *urazumiti* ‘bring to reason’: Blg. uses the prefix *v-* for the same concept: *vrazumja* ‘bring to one’s senses’, which unambiguously relates to the INTO schema). Cro. uses *u-* in verbs indicating physical transformation in scenarios in which something changes its original structure (e.g., liquid to sugar: *ušéceriti se* ‘turn to sugar’). For the same scenario, Blg. uses *o-*, which in these cases expresses AFFECTING A SURFACE (see Šarić and Nedelcheva, 2015): Blg. *ozaharja* ‘turn to sugar’ – Cro. *ušéceriti (se)*, Blg. *oštavja* ‘tan’ – Cro. *uštaviti (kožu)*, and so on.

³⁰ A near-synonym in Blg. is prefixed with *za-*: *zalovja* ‘catch, grab’.

2.3.2 CHANGE OF PHYSICAL/EMOTIONAL STATE

The verbs expressing this meaning indicate changes in appearance and structure (e.g., Blg. *ugriža se* ‘become worried’, Cro. *ukočiti (se)* ‘stiffen’). In many cases, changes are unwished for, which relates to the meanings of adjectives, nouns, and verbs from which this group of *u-* verbs is derived: for instance, Cro. *upljesniviti se* ‘become musty/moldy’, *usmrđjeti se* ‘begin to stink/decay’, *ucrvati se* ‘become wormy’, *ugrušati se* ‘curdle (up), coagulate’, and *ukiseliti (se)* ‘pickle; preserve in vinegar; become sour’ (all referring to food). Blg. has no corresponding *u-* verbs. The equivalents of these Cro. verbs are either unprefixated (e.g., *muhljasam* ‘become musty/moldy’ and *plesenjasam* ‘mildew, grow musty’) or are prefixed with different prefixes: *v-*, which also marks entering a new state (e.g., *vkisna* ‘turn sour’), and *o-* indicating an effect on the whole object (e.g., *očervivja* ‘fill with worms, be wormy’). We also noticed a variation of *u-* (Cro) and *sǎ-* (Blg.) in some verbs indicating state change (e.g., *usiriti – sǎsirja* ‘coagulate, set, curdle (referring to milk)’); in similar cases, *u-* once again refers to a metaphorical moving away from the present state and entering a new one.

3. Discussion

Blg. and Cro. reveal some differences in prefixation patterns. The different prefixes highlight (slightly) different construals of spatial and non-spatial events. In this section, we further elaborate on the main differences mentioned above by following the order of the meanings in the semantic networks (see Figures 1 and 2).

In the category MOVE/PUT INTO (see 2.1.1), a prefix variation is possible in both Blg. and Cro. (e.g., Cro. *uliti; naliti u*; Blg. *vleja, naleja v* ‘pour into’). With some verbs, instead of *v-*, Blg. uses prefixes that are also used by Cro. verbs that are also near-synonymous with *u-* verbs (e.g., for the meaning ‘unite’ Cro. has *ujediniti, združiti, objediniti*, and *jediniti*, and Blg. has *obedinja, sdružja*, and *sǎedinja*). The use of Blg. *o(b)-* and *s(ǎ)-* and Cro. *o(b)-*, and *s-*, *z-* in similar verbs is motivated by the meaning overlap of these prefixes with *u-*. See Figure 3 for the relation of *u-* and *o(b)-* (see also Brala Vukanović, 2011).

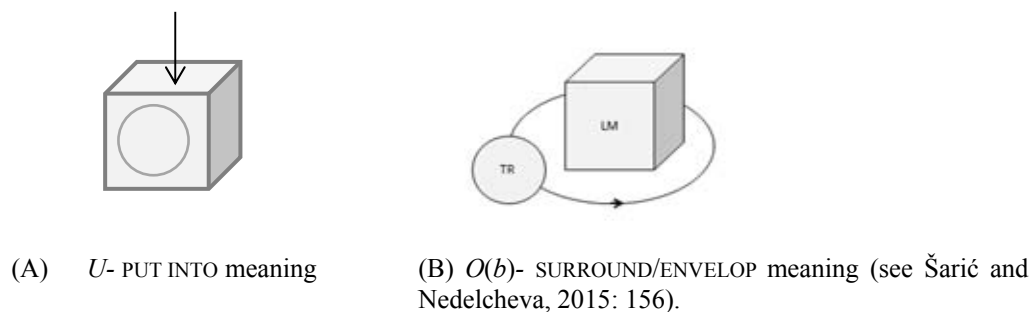


Figure 3. *U-* versus *o(b)-*.

The two schemas in Figure 3 look as though they illustrate two opposite spatial configurations. In (A), the prefix *u-* marks a relation in which the TR is put into/inside the LM. In (B), the prefix *o(b)-* depicts a relationship in which the

TR surrounds/envelops the LM. In a more abstract sense, however, without focusing on the contrast between the TR and the LM, we see two entities that come together and become one. This is the point of intersection of the semantic networks of *u-* and *o(b)*, *s-/s(ǎ)-/z-*: The meaning ‘coming together’ is the central meaning of the preposition *s* and its cognate prefix.

There are differences between Cro. and Blg. in some caused-motion verbs prefixed with *u-* and *na-* (e.g., Cro. *ukrcati*, *utovariti* – Blg. *natovarja* ‘load’). Cro. *natovariti* implies a slightly different scenario than *utovariti*; putting something on a surface – the load is visible and exposed as opposed to putting into a container expressed by *utovariti*.

There are also examples of *u-/na-/po-/pro-* variation: for instance, Cro. *udrobiti* – Blg. *nadrobja* ‘crumble’, Cro. *umočiti* – Blg. *natopja*, *potopja*,³¹ *namokrja* ‘dip, immerse’, and Cro. *upiti* – Blg. *popija*, *prosmuča* ‘absorb, suck in’. The prefixes vary with caused-motion verbs implying force (e.g., Cro. *utrpati*³² – Blg. *natāpča*, *nablāskam*, *natikam* ‘cram, pack’, *utrapiti* – *probutam*, *natrapja* ‘impose, thrust’) and some creation verbs (e.g., Cro. *crtati-ucrtati*³³ – Blg. *načertaja* ‘draw’). These differences can be considered systematic because only three prefixes are used in Blg. as equivalents to Cro. *u-*: *na-*, *po-*, and *pro-*. The Blg. and Cro. prefix *na-* shares its central meaning with the preposition *na*, which marks a spatial configuration of a TR situated on or moving to a surface (LM). The surface can be conceptualized metaphorically as a target or destination. The choice of *na-* instead of *u-* can be explained with a different construal. The construal depends on the vantage point of the observer. When the observer looks from above, 3D objects seem like 2D surfaces (see the spatial configuration of *na-* in Figure 4B).

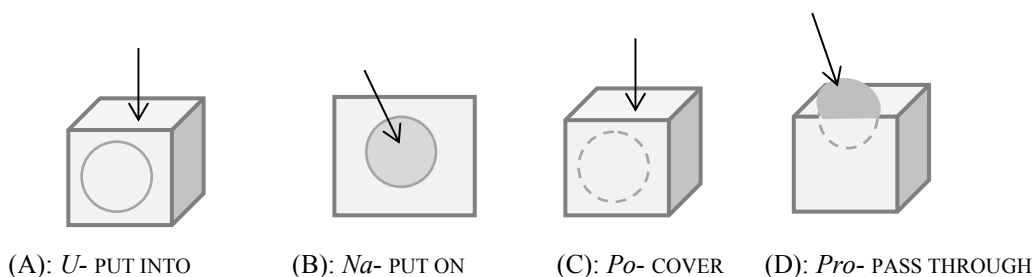


Figure 4. Spatial configurations of *u-*, *na-*, *po-*, *pro-*.

The prefix *po-* in Blg. *potopja* ‘dip, immerse’ and *popija* ‘absorb, suck in’ expresses the meaning of COVER, which correlates with PUT INTO due to the fact that, when the TR is placed into the LM, it is hidden/ covered from the eyes of the observer (see *po-* in Figure 4C). Sometimes, in order to reach the inside of the LM, the TR has to overcome an obstacle (e.g., Blg. *prosmuča* ‘absorb, suck in’) or exert force that will enable it to pass through (e.g., Blg. *probutam*

³¹ Cro. also uses *natopiti* ‘make wet’ and *potopiti* ‘immerse in water, (completely) submerge’ in slightly different spatial scenarios than the one with *utopiti*.

³² Also *natrpati*, in which the prefix *na-* emphasizes loading on a surface.

³³ Cro. *nacrtati* ‘draw’ explicitly emphasizes a surface, in contrast to *ucrtati* ‘chart’, which implies adding some objects to an existing map/drawing (e.g., *zgrada je ucrtana u katastru* ‘the building is drawn in the register’).

‘impose, thrust’) and allow the TR to end its movement inside the LM (see *pro-* in Figure 4D).

Regarding the relation between *u-*, *o-*, and *po-*, it is interesting to explore the parallel between Cro. *usoliti* – Blg. *osoloja* ‘salt, preserve with/in salt’ and Cro. *osoliti* – Blg. *posolja* ‘add salt, salt to taste’ (Cro. also has *posoliti*, with the distributive prefix *po-*). This is a good example of applying different construals to the same configuration. In the first pair, Cro. *usoliti* denotes ‘putting meat, fish, etc. in salt’, which corresponds to the meaning PUT INTO, whereas Blg. *osoloja* relates to the SURROUND schema. In the second pair, Cro. *osoliti* expresses the SURROUND schema and Blg. *posolja* means COVER, the same as *posoliti* in Cro: it implies a certain quantity of salt added (to a surface).³⁴

The Cro. verbs *ubirati* ‘pick; collect (taxes)’ (pf.) *ubirati* (impf.) ‘pick; collect taxes; get ovations’ (impf.), which belong to the category MOVE/PUT INTO A METAPHORICAL CONTAINER (see 2.1.2), have three equivalents in Blg.: *sābiram* ‘collect, gather’, *obiram* ‘pick’, and *pribiram* ‘gather, collect, arrange’. Cro also has *sabrati* ‘collect, gather’,³⁵ *obirati* ‘pick clean’,³⁶ and *pibrati* ‘gather, collect from different sources’. The three Blg. and Cro. verbs reflect different construals. *Sābiram/sabrati* ‘collect, gather’ focuses on objects brought together so that there is less distance between them. The verbs depict the schema LESS/NO DISTANCE. *Obiram/obirati* ‘pick’ in this situation affects the whole LM or all LMs, causing a change of their state. These verbs bring a more generalized, overall view to the configuration. *Pribiram/pibrati* ‘gather, collect, arrange’ refer to the meaning ATTACH, which presupposes the presence of a TR that takes a number of LMs and puts them together. However, in the end, the three verb pairs indicate a situation in which all LMs are collected and stored in the same place.

For a number of Cro. verbs expressing COVER/WRAP (see 2.1.3), Blg. has equivalents prefixed with a different prefix. This may be accounted for with different construals that the two languages apply to certain spatial scenes. For instance, with Cro. *ukoričiti* ‘put in hardback’, the covers of the book are interpreted as a container in which the book is enclosed. In Blg., the same verb is prefixed with *pod-*, *podvārža* (*v tvārdi korici*) ‘under-put in hardback’. Similarly to its cognate preposition, the prefix *pod-* ‘under’ denotes that the TR is under the LM, which obscures the observer’s view (see Figure 5):

³⁴ Dickey (2001: 109) argues that distributive verbs in Croatian “almost invariably cooccur with the universal quantifiers *sav* ‘all’ or *cijeli* ‘whole,’...”.

³⁵ *Sabrati se* ‘collect oneself’. The reflexive verb *pibrati se* has a similar meaning.

³⁶ According to the definition of their first meaning in HJP, *ubirati* and *obirati* are synonyms: the first is defined as ‘pick’ and the second ‘finish picking’. However, there are differences: *obirati* more readily combines with *sve* ‘all’ (e.g., *obirati sve masline* ‘pick all of the olives’).



Figure 5. (A): Cro. *ukoričiti* ‘put in hardback’ (B): Blg. *podvārža (v tvārdi korici)* ‘under-put in hardback’.

Some of the verbs expressing COVER/WRAP in Cro. (e.g., *uprskati* ‘spatter’, *umotati* ‘wrap up’,³⁷ *upakirati* ‘pack up’)³⁸ are prefixed with *o(b)-* in Blg. (e.g., *opakovam* ‘pack up’, *obvija* ‘wrap up, envelop’, *omotaja* ‘wind round’, *oprāskam* ‘spatter’). Šarić and Nedelcheva (2015) argue that these verbs express the meaning AFFECT A SURFACE; more specifically, they express applying and attaching something to a surface. Here again, processes denoted by the same base verbs prefixed with different prefixes in Cro. and Blg. are conceptualized differently. When the prefix *o(b)-* is used, the focus is on how the surface of the LM is affected. Conversely, with *u-*, the emphasis is placed on the fact that the LM is partly covered or cannot be seen at all.

Systematic differences can be found in the category COVER/WRAP with verbs expressing ‘make X, become X’: for example, Cro. *ublatiti (se)* ‘dirty, soil, besmirch’ – Blg. *izcapam (se)*, *izkaljam (se)*;³⁹ Cro. *umackati* (also: *zamackati* and *izmackati*) ‘mess up, besmirch’ – Blg. *omacam (se)*, *izcapam (se)*, Cro. *umrljati* ‘smear, soil, smudge’ (also: *zamrljati*, *izmrljati*) – Blg. *omārljam (se)*, *ocapam (se)*; Cro. *uprljati (se)* (also *zaprljati* and *isprljati (se)*) ‘soil; make/become dirty’ – Blg. *ocapam*, *zacapam*, *izcapam*, *izmārsja*, *zamārsja*. In order to express the COVER/WRAP meaning, three prefixes are chosen by Blg. as equivalents to Cro. *u-*. Interestingly, Cro. can also choose among the same set of prefixes with the same base verbs: *o-*, *iz-*, and *za-*. The choice is determined by different construals applied to the same extralinguistic situation. With *o-*, the central spatial meaning of circular movement directly motivates the meanings SURROUND and AFFECT A SURFACE because a TR, when moving around a LM, can contact and affect its boundaries, its surface, or its volume (by adding or removing) or can envelop it completely (Šarić and Nedelcheva, 2015).

³⁷ The verb *omotati* also exists in Cro. and relates to the spatial schema ‘surround’, as does *zamotati* ‘wrap (up)’.

³⁸ Also *zapakirati* ‘pack’.

³⁹ Cro. can also use *iz-*, *za-*, and *o-*: *izblatiti*, *zablatiti (se)*, *oblatiti*. Both *zablatiti* and *izblatiti* are more frequent than *ublatiti* in the hrWaC 2.0 (Croatian Web) corpus. The most frequent, however, is *oblatiti*. These verbs imply slightly different construals of an event. According to the first 50 examples with *oblatiti*, the verb is used exclusively in its metaphorical meaning ‘say bad things about someone’. The same is true for all the examples with *izblatiti*. *Zablatiti* is mainly used in the concrete spatial sense ‘cover with mud’. With *ublatiti (se)*, concrete usages prevail.

The COVER meaning is also found in the prefix *za-* (Nedelcheva, 2010). Blg. *zacapam*, *zamärsja*; Cro. *zamrljati*, *zablatiti* ‘make dirty’ are conceptualized as covering a surface with dirt or as the TR covering the LM and making it foul.

Iz- (e.g., Blg. *izcapam*, Cro. *izblatiti*), on the other hand, is related to the meaning AFFECT A SURFACE, which expresses an activity distributed on the whole surface.

Therefore, there is consistency in the choice of alternative prefixes in the cases of (near-)equivalents of *u-* verbs prefixed with *o-*, *iz-*, and *za-*: These prefixes share the meaning COVER and AFFECT A SURFACE with the prefix *u-*.

With some verbs expressing TARGET/DIRECT (see 2.1.5), the choice of prefix in the two languages is different; for example, Cro. *usredotočiti* (*se*), Blg. *säsredotoča* (*se*) ‘concentrate on’. This can be explained with different construals of the scene. Directing one’s vision (Cro. *usredotočiti* (*se*)) is related to focusing on something, and, when focusing and concentrating, people very often tend to look down, which corresponds to the meaning of *u-* MOVE DOWNWARDS (see 2.2.3). DOWN is one of the meanings in the semantic network of *s(ä)*- not only in Blg. and Cro., but also in Russian (Janda *et al.*, 2013: 97).

Some Blg. *u-* verbs belonging to the group ADJUST (see 2.1.6) correspond to verbs with different prefixes in Cro., or to an almost identical Cro. verb that has a different meaning; for instance, Blg. *utvärdja* ‘confirm, approve’ – Cro. *potvrditi*. *Utvrditi* in Cro. means ‘fortify, fix, define, determine, set down; endorse, ratify’. At present, Blg. *utvärdja* is widely used in its metaphorical meaning ‘endorse, ratify’ in the judicial sphere. Similar examples are Blg. *ugovorja* ‘discuss, talk over’ and Cro. *ugovoriti* ‘agree, arrange, settle, fix, set up’. Blg. *ugovorja* also has a metaphorical extension denoting ‘negotiate and settle’. In Blg., the verb *govorja* ‘talk’ can also be prefixed with *na-*, but in that case the meaning is associated with exceeding the norm and it denotes ‘telling (s.o.) a lot of things’. In Cro., the verb with the prefix *na-* (*nagovoriti*) means ‘persuade’ (Blg. *ugovorja* also can mean ‘persuade’).

Transitive verbs indicating removal and separation (see 2.2.1 MOVE AWAY), and giving away, are relatively common in Cro. (e.g., *ugrabiti* ‘rob’, *ukrasti* ‘steal’). For some of these scenarios, Blg. uses *ot-* and *na-*; for example, *otkäsna*, *nabera* ‘pick’ for *ubрати*, *otnema* ‘take away’ and *otvleka* ‘carry away, draw away’ (in addition to the prefixed *s-* verb *sgrabča* ‘seize, grasp’ and the unprefixated *grabna* ‘grab’) for *ugrabiti*, and *otkradna* ‘steal’ for *ukrasti*. The idea of separation and removal is already implied in the base verbs in this subgroup, and the prefix choice is thus in accordance with the Overlap Hypothesis (see Section 1.1). The meaning overlap of the imperfective simplex verbs (indicating removal) in the cases in which the prefix *u-* (indicating removal as well) perfectivizes such verbs (e.g., *grabiti* ‘grasp, snatch, take away’, *krasti* ‘steal’, and *brati* ‘pick’⁴⁰) results in an impression of the prefix’s emptiness.

In the MOVE AWAY schema, Blg. and Cro. use *iz-* denoting ‘moving away from’ (see Nedelcheva, 2008). *Iz-* is attested with verbs such as *izbelja* ‘bleach’ (compare Cro. *ubijeliti* (*se*) ‘make white; wear white’ and *izbijeliti* ‘make white’), *izläskam* ‘polish, smooth’ (compare Cro. *uglačati* ‘polish, burnish’ and the more frequent *izglačati*), and *izgladja* (metaphorical ‘polish up, smooth out’). Bleaching can be conceptualized as moving away from the original color,

⁴⁰ Blg. prefixes the same verb stems with *o-*.

whereas polishing is conceived of as moving away a lot of dirt and dust. A near-synonym of the Blg. prefix *iz-* is *ot-*: it can be found, for instance, in the verb *otpečatam*, which is an equivalent of Cro. *utisnuti* ‘push into; impress, stamp, imprint’. Two different construals are observable with these two verbs (see Figure 6).



Figure 6. (A): Cro. *utisnuti*



(B): Blg. *otpečatam*.

In Cro., the focus is on the impact on the surface, whereas in Blg. the verb denotes the result the impact has on the surface; namely, the mark left on it. The base verb *pečatam* ‘type’ in Blg. is derived from the noun *pečat* ‘stamp’.

Some base verbs in Blg. can be combined with both *u-* and *v-* (see Table 2). Unlike their counterparts in Cro., in Blg. *u-* and *v-* developed as two separate prefixes, each of them with a discrete semantic network. Although there is intersection in their semantic networks, namely the meaning MOVE/PUT INTO, there are no verbs that function as doublets. The verbs prefixed with *v-* fall into two groups only: MOVE/PUT INTO and ACQUIRE A QUALITY. Acquiring a quality can be conceptualized in terms of putting an ability in the human body, which is perceived as a container. *U-* verbs show much more variety in meanings (see Table 2). These examples are clear evidence of language economy. There is no superfluity of forms: the existence of each prefixed verb is conditioned by a specific construal that cannot be found in verbs prefixed with another prefix.

Table 2. Some verbs prefixed with both *u-* and *v-* in Blg.

Verb	Gloss	v- / u-	Gloss	Category
<i>bija</i>	‘beat, thrash’	<i>vbija</i>	‘wedge in’	move into
<i>bija</i>	‘beat’	<i>ubija</i>	‘kill, murder’	impact
<i>vlača/vleka</i>	‘drag, pull, trail, draw’	<i>vāvleka</i>	‘draw (into); drag (into)’	move into
<i>vlača/vleka</i>	‘drag, draw, haul’	<i>uvleka (se)</i>	‘carry away, transport’	move away
<i>veda/vodja</i>	‘lead’	<i>vāveda</i>	‘lead in, bring in, show in’	move into
<i>veda/vodja</i>	‘lead’	<i>uveda (se)</i>	‘bend down’	move downwards
<i>vonja</i>	‘stink’	<i>vāvonja se</i>	‘begin to stink’	acquire new quality
<i>vonja</i>	‘stink’	<i>uvonja (se)</i>	‘stink all over’	move away from the norm

Systematic differences between Cro. and Blg. are also found in the category AFFECT (2.3.1) (‘make X’, with verbs with adjectival bases): for example, Cro. *nakaradan* (adj.) ‘deformed’ → impf. *nakaraditi*, pf. *unakaradti* ‘disfigure, deform’; Blg. *kriv* (adj.) ‘twisted, curved’ → impf. *krivja* ‘distort’ → pf. *razkrivja* ‘distort’, *izkrivja* ‘crook, curve’; Cro. *nesretan* ‘unhappy, wrecked, ruined’ → *unesrećiti* ‘make unhappy, ruin’; and Blg. *gorčiv* (adj.) ‘bitter’ → impf. *gorča* ‘taste bitter’ → pf. *ogorča* ‘distress, embitter’.

The meaning ‘acquire a feature’, ‘become X’ is more frequently expressed with *u-* verbs in Cro. than in Blg. (e.g., Cro. *usaliti se* – Blg. *zatlāsteja*,

nadebeleja ‘become fat’; *udomaćiti se – opitomja* ‘domesticate, acclimatize’; *umekšati* (the verbs *omekšati* and *smekšati* are much more frequent) – *smekča*, *omekotja* ‘soften, mellow’). As *umekšati*, *omekšati* and *smekšati* show, there is prefix variation in some cases resulting in three near-synonymous verbs with *u-*, *o-*, and *s-*. Blg. lacks the form with *u-*.

4. Conclusion

Our comparison of two South Slavic languages is a first step in a larger project that aims at describing prefix typology across all Slavic languages. We initially expected more similarities than differences in the semantics of prefixes and prefixed verbs in two South Slavic languages. However, in comparing Blg. and Cro., we came across a lot of divergences in the prefix choice even with the identical or very similar verbs.

The prefix *u-* combines with numerous verbs in both Cro. and Blg. In many cases, *u-* is added to almost identical base verbs in both languages to render prefixed verbs very similar in meaning (e.g., Blg. *ugoja* and Cro. *ugojiti se* ‘fatten, feed well’). In some other cases, the combination with the same or a similar base results in verbs with different meanings (e.g., Blg. *ustoja* ‘withstand, resist’ and Cro. *ustajati se* ‘become stale, old’; Blg. *umislja se* ‘muse’ and Cro. *umisliti se* ‘imagine; have a high opinion of oneself’). Alternatively, one language chooses *u-* and the other one opts for another prefix with the same base verb to convey a similar meaning (e.g., Cro. *uvrnuti* ‘twist, move away’ and Blg. *izvărna se* ‘turn away’).

The main formal difference between Cro. and Blg. lies in the fact that many Cro. verbs prefixed with *u-* have equivalents in *v-* verbs in Blg. This is the case with many verbs expressing MOVE INTO, especially with verbs suggesting concrete spatial motion. The reason is that *u-* verbs in Cro. relate to two contrasting spatial schemas, INTO and AWAY, because two units that originally expressed two distinct concepts (containment and movement away) merged into one in the course of language history. This did not happen in Blg., which has two distinct prefixes.

However, the *u-/v-* relation in the verbs expressing MOVE INTO is not straightforward. In some situations, instead of verbs prefixed with *v-*, Blg. prefers *na-* verbs or prepositional phrases to render the meaning of some Cro. *u-* verbs. In some extended meanings related to the INTO schema, Blg. has *u-* as does Cro., and not *v-*.

In the INTO schema, we noticed variation of *u-* and *na-*, *o(b)-*, *s(ǎ)-*, *po-*, and *za-*. The variation of these prefixes is also present within Cro. and Blg., yielding near-synonymous verbs.

The AWAY schema with *u-* verbs of concrete motion is not very productive; this seems to be a shared Slavic feature. Only a few motion verbs proper are prefixed with *u-* in both Cro. and Blg.

In the AWAY schema, *u-* varies with *iz-*, *ot-* (in Blg.), and *od-* (in Cro). The prefix variation in both schemas at the interlanguage and intralanguage level is triggered by different construals of the same spatial configuration. Different prefixes specialize in one or another manner and cannot be used interchangeably.

Some of the synonymous verb pairs and triplets merely mentioned in this analysis require a more exhaustive corpus-based analysis, which will shed light on fine details of differences in construals of spatial and non-spatial events.

References

- Andrejčin, L. 1944. *Osnovna bālgarska gramatika*. Sofia: Hemus.
- Belaj, B. 2008. *Jezik, prostor i konceptualizacija: Shematična značenja hrvatskih glagolskih prefiksa*. Osijek: Filozofski fakultet.
- Belaj, B. 2011. Schematic Meaning of the Croatian Verbal Prefix *iz-*. In *Cognitive Linguistics: Convergence and Expansion*, M. Brdar, S. T. Gries and M. Žic Fuchs (eds.), 115-150. Amsterdam: Benjamins.
- Brala-Vukanović, M. 2011. Where is 'o': Croatian Prepositions as Vectors. In *Space and Time in Language*, M. Brdar, M. Omazić, V. Pavičić Takač, T. Gradeček-Erdeljić and G. Buljan (eds.), 91-112. Frankfurt am Main: Peter Lang.
- Derksen, R. 2008. *Etymological Dictionary of the Slavic Inherited Lexicon*. Leiden: Brill.
- Dickey, S. 1999. Expressing Ingressivity in Slavic: The Contextually-Conditioned Imperfective Past vs. the Phase Verb *stat'* and Procedural *za-*. *Journal of Slavic Linguistics* 7(1): 11-44.
- Dickey, S. 2001. Distributive Verbs in Serbian and Croatian. In *Of All the Slavs My Favorites: In Honor of Howard I. Aronson.*, V. A. Friedman and D. L. Dyer (eds.), 103-115. Bloomington: Slavica.
- Dickey, S. 2005. *S-/Z-* and the Grammaticalization of Aspect in Slavic. *Slovenski jezik - Slovene Linguistic Studies* 5: 3-55. Available at https://www.researchgate.net/publication/29442531_S-Z-_and_the_Grammaticalization_of_Aspect_in_Slavic [last accessed 9 April 2016]
- Dickey, S. 2011. The Varying Role of *PO-* in the Grammaticalization of Slavic Aspectual Systems: Sequences of Events, Delimitatives, and German Language Contact. *Journal of Slavic Linguistics* 19(2): 175–230.
- Dickey, S. 2012. Orphan Prefixes and the Grammaticalization of Aspect in South Slavic. *Jezikoslovlje* 13(1): 71-105.
- Hampe, B. 2002. *Superlative Verbs*. Tübingen: Gunter Narr.
- Isačenko, A. V. 1960. *Grammatičeskij stroj russkogo jazyka v sopostavlenii s slovackim. Morfologija*. Part II. Vol. 2. Bratislava: Izdatel'stvo Slovackoj Akademii Nauk.
- Ivanova, K. 1966. *Desemantizacija na glagolnite predstavki v sävremennija bālgarski knižoven ezik*. Sofia: Bulgarian Academy of Sciences.
- Janda, L. A. 1986. *A Semantic Analysis of the Russian Verbal Prefixes za-, pere-, do-, and ot*. Munich: Otto Sagner.
- Janda, L. A. 2007. Aspectual Clusters of Russian Verbs. *Studies in Language* 31(3): 607–648.
- Janda, L. A. and Nessel, T. 2010. Taking apart Russian *raz-*. *Slavic and East European Journal* 54(3): 476–501.
- Janda, L. A. et al. 2013. *Why Russian Aspectual Prefixes Aren't Empty. Prefixes as Verb Classifiers*. Bloomington, IN: Slavica.
- Klenin, E. 1983. Verbs of Motion Prefixed in *u-* in Old and Modern Russian. In *From Los Angeles to Kiev. Papers on the Occasion of the Ninth*

- International Congress of Slavists*, V. Markov and D. S. Worth (eds.), 155-168. Columbus, OH: Slavica.
- Kostov, N. 1939. *Bălgarska gramatika*. Sofia.
- Mitkovska, L. and Bužarovska, E. 2012. The Preposition and Prefix *nad* in South Slavic Languages with Emphasis on Macedonian. *Jezikoslovlje* 13(1): 107-150.
- Naughton, J. D. 2005. *Czech: An Essential Grammar*. New York: Routledge.
- Nedelcheva, S. 2008. Kognitivna semantična vržka mežu anglijskite frazovi glagoli s *OUT* i bălgarskite glagoli s predstavka *IZ-*. *Ljuboslovie* 9: 176–188.
- Nedelcheva, S. 2010. On the Semantics of the Preposition *ZA* and the Prefix *ZA-* in Bulgarian. In *Text Processing and Cognitive Technologies N19, Proceedings of the XIIth International Conference Cognitive Modeling in Linguistics, Dubrovnik, Croatia*, V. Solovyev and V. Polyakov (eds.), 144-148. Kazan: Kazan State University.
- Neset, T. 2010. Is the Choice of Prefix Arbitrary? Aspectual Prefixation and Russian Verbs of Perception. *Slavic and East European Journal* 54(4): 666–689.
- Pashov, P. 1966. *Bălgarskijat glagol*. Sofia: Nauka i izkustvo.
- Przybylska, R. 2006. *Schematy wyobrazeniowe a semantyka polskich prefiksów czasownikowych do-, od-, prze-, roz-, u-*. Kraków: Universitas.
- Šarić, L. 2014. *Prostor u jeziku i metafora*. Zagreb: Naklada Jesenski i Turk.
- Šarić, L. and Tchizmarova, I. 2013. Space and Metaphor in Verbs Prefixed with *od-/ot-* ‘from’ in Bosnian/Croatian/Serbian and Bulgarian. *Oslo Studies in Language* 5(1): 7–33.
- Šarić, L. and Nedelcheva, S. 2015. The Verbal Prefix *o(b)-* in Croatian and Bulgarian: The Semantic Network and Challenges of a Corpus-Based Study. *Suvremena lingvistika* 40: 149–179.
- Schooneveld, C. H. van. 1958. The So-Called ‘préverbes vides’ and Neutralization. *Dutch Contributions to the Fourth International Congress of Slavists*. Moscow, September 1958. La Haye. 159–161.
- Słoński, S. 1937. *Funkcje prefiksów werbalnych w języku starosłowiańskim (starobułgarskim)*. Warszawa: Nakładem Towarzystwa Naukowego Warszawskiego.
- Sussex, R. and Cubberley, P. 2006. *The Slavic Languages*. Cambridge: Cambridge University Press.
- Tabakowska, E. 2003. Space and Time in Polish: The Preposition *za* and the Verbal Prefix *za-*. In *Motivation in Language*, H. Cuyckens, T. Berg, R. Dirven and K. U. Panther (eds.), 153-177. Amsterdam: Benjamins.
- Townsend, C. E. 1978. A Semantic Profile of the Russian Preverb *u-*. *Folia Slavica* 2(1–3): 329–339.
- Townsend, C. E. 1997. Semantics of the Preverb *u-* in Czech and Russian: Negative and Positive Modality. *Die Welt der Slaven* 42: 328–346.
- Twardzisz, P. 1994. The Semantics of the Polish Verbal Prefix *ob(e)-*. A Prototype Approach. In *Focus on Language: Papers from the 2nd Conference of the Polish Association for the Study of English, Kazimierz '93*, E. Gussmann and H. Kardela (eds.), 217-232. Lublin: Maria Curie-Skłodowska University Press.
- Vey, M. 1952. Les préverbes ‘vides’ en tchéque moderne. *Revue des études slaves* 29: 82–107.

Corpora

[Last accessed 9 April 2016]

Bulgarian National Corpus. Available at: <http://search.dcl.bas.bg/>

Croatian Web Corpus. Available at

http://nl.ijs.si/noske/all.cgi/first_form?corpname=hrwac;align=

Hrvatska jezična riznica (Croatian Language Repository). Available at:

<http://riznica.ihjj.hr/>

CNC= Hrvatski nacionalni korpus (Croatian National Corpus). Available at:

http://filip.ffzg.hr/bonito2/run.cgi/first_form

Dictionaries

Anić, V. 1998. *Rječnik hrvatskoga jezika*. Zagreb: Novi Liber.

Bujas, Ž. 2001. *Veliki hrvatsko-engleski rječnik*. Zagreb: Nakladni zavod Globus.

Bulgarian Dictionary (*Rečnik na bālgarskija ezik*). Available at:

<http://ibl.bas.bg/rbe/> [last accessed 9 April 2016]

Eurodict – free online dictionary. Available at: <http://www.eurodict.com/>

HJP: Hrvatski jezični portal (Croatian Language Portal). Available at:

<http://hjp.znanje.hr/> [last accessed 9 April 2016]

Skok, P. 1973. *Etimologijski rječnik hrvatskoga ili srpskoga jezika*. Zagreb: JAZU.

Corresponding author's address

Ljiljana Šarić

Department of Literature, Area Studies and European Languages

University of Oslo

P.O. Box 1003 Blindern

OSLO 0315

Norway

ljiljana.saric@ilos.uio.no