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Ljiljana Šarić
University of Oslo

A cognitive semantic account of the prefix *uz* in Croatian

This article examines the meaning of the prefix *uz-* in Croatian. First, I examine this prefix in nouns, adverbs, complex prepositions, and adjectives, and in the following sections I look at the verbal prefix *uz-*. After identifying a few subgroups of verbs prefixed with *uz-* in contexts of upward motion, an examination of paths of meaning extensions into domains that seem less related to upward motion follows, along with an analysis of the constructional behavior of a representative motion verb prefixed with *uz-*. The main question traced throughout the analysis is how the central meaning of upward motion relates to other meanings of the prefix.

Key words: prefixes; spatial meanings; *uz-* in Croatian; upward motion; metaphorical extensions.

1. Introduction

Both the prefix¹ and preposition *uz(-)* occur in spatial contexts, and so their meaning similarities can be expected at least in the spatial domain. In addition, it can be assumed that the meaning network of the preposition (Šarić, this issue) will be helpful in analyzing the cognate prefix. However, the prefix can be added to various parts of speech, the spatial meaning can extend into various domains, and that meaning may not play the same role in all the prefixed forms. Moreover, as a verbal prefix *uz-* has developed additional senses and functions. Nonetheless, I believe that the original spatial meaning helps explain these senses.

¹ The background for this analysis is the analysis of the preposition *uz* (Šarić, this volume). Herman (1975: 12) describes the meaning of the equivalents of this prefix in Slavic as “up; upon; back, again, re- ... sometimes [it] expresses sudden inception, emergence.” Mahota (1993) draws attention to some uncertainties related to the etymology of the Slavic preposition and prefix *vъz(-)*.



Let us take a brief look at a few manuals and how they approach *uz-*. Raguž (1997) does not pay attention to prefix meanings: this grammar does not devote a chapter to word formation, as Croatian grammars usually do (e.g., Barić et al. 1990: 191–262). Barić et al. (1990: 260) identify a few meanings of the prefix *uz-*: upward motion; motion in the opposite direction (e.g., *uzmaći* ‘to retreat’ and *uzvratiti* ‘to return’); inchoative and “intensive” senses; and finitive and similar senses (e.g., *uskopati* ‘to dig’). In noun derivation, *uz-* is mentioned as contributing a “secondary/additional meaning” to some nouns. *Uz-* is also mentioned in the prefixal-suffixal derivation of nouns (e.g., *uzglavlje* ‘head of the bed’; Barić et al. 1990: 233).

In his dictionary, Anić (1998: 1276) mentions *uz-* as a verbal prefix only, and ascribes the following meanings to it: movement upward, as in *uspeti se na brdo* ‘to climb onto a hill’; and intensive beginning of an action, as in *ushodati se* ‘to start pacing’. *Uz-* is also mentioned in deriving the perfective present (e.g., *uzmognem* ‘I can manage’).²

Typically, manuals do not establish a relation between single meanings. The relatedness of the meanings of *uz-* in various parts of speech is also ignored, as is the relation of the prepositional and prefix meanings. This analysis focuses in particular on the role of the spatial meaning in the meaning network of the prefix, and the relatedness of apparently different prefix meanings.

2. The prefix *uz-* in nouns, adverbs, complex prepositions, and adjectives

To examine the function and meaning of the prefix in nouns, adverbs, complex prepositions, and adjectives, I have extracted some representative examples from the dictionary by Anić (1998); see Table 1.

Some nouns prefixed with *uz-* are motivated by prepositional phrases with the cognate preposition: for example, *uz brdo* ‘up the hill’ → *uzbrdica*, *uz brijeg* ‘along the shore’ (*brijeg*: obsolete for *obala*) → *uzbrežje*, *uz glavu* ‘next to the head’ → *uzglavlje*, *uzglavnica*, *uz goru* ‘up the hill’ → *uzgorica*. These phrases are spatial, and the nouns with *uz-* are all prefixal-suffixal derivations, which

² The JAZU dictionary (1971) cites several obsolete examples of this usage type. On this meaning, see Section 3.2.2.



means that the prefix *uz-* and the respective suffixes are added simultaneously to the stem, and that the suffixed forms without the prefix do not exist (**brdica*, **brežje*, **glavlje*). The prefixed nouns stand in a metonymic relation to the base nouns: *brdo* ‘hill’ → a path up the hill (*uzbrdica*), *brijeg* ‘shore’ → a region near the shore (*uzbrežje*), *glava* ‘head’ → part of the bed close to the head (*uzglavlje*, *uzglavnica*).³ In the nouns originating in prepositional phrases with *uz*, the semantics of the preposition are preserved—that is, both spatial schemas related to the preposition, motion upward and spatial proximity, can be identified—and the new noun is a plain blend⁴ of the meanings of the preposition and the base noun.

Table 1. Nouns, adverbs, prepositions, and adjectives prefixed with *uz-*.

Nouns	Adverbs and prepositions	Adjectives
<i>uzbrdica</i> , <i>uzgorica</i> ‘ascent, upward slope’, <i>uzbrežje</i> ‘hillsides’, <i>uzglavlje</i> ‘head of the bed, pillow’, <i>uzglavnica</i> ‘head of the bed’ <i>uzrečica</i> ‘saying’ <i>uzdarje</i> ‘gift given in return’ <i>uzgon</i> ‘buoyancy; aerodynamic lift’ <i>uzbuna</i> ‘alarm’, <i>uzdah</i> ‘sigh’, <i>uzgoj</i> ‘cultivation; breeding’, <i>uzlet</i> ‘takeoff’ <i>uzmak</i> ‘retreat’, <i>uzvrat</i> ‘return’ <i>uzvik</i> ‘cry, call, shout’, <i>usklik</i> ‘exclamation’ <i>uzrast</i> ‘age’, <i>uzdignuće</i> ‘elevation; up-lift’ <i>uzvišenje</i> , <i>uzvisina</i> ‘elevation, mount’	<i>uzbrdo</i> ‘uphill’, <i>uzdlaku</i> ‘against’ <i>uzduž</i> ‘along, alongside’, <i>uzgred</i> ‘by the way, incidentally’	<i>uzgredan</i> ‘incidental’, <i>uzlazan</i> ‘ascending, upward’ <i>uzvodni</i> ‘upstream’, <i>uzvisit</i> ‘elevated’

There are a few nouns in which a less straightforward relation to spatial realms can be observed. *Uzdarje* refers to a gift given in return for a previously received gift (*uz dar* → *uzdarje*). The etymological source of this form is the Old Church Slavic (OCS) prefix *vъz-*, which occurs in verbs such as *vъzdati* ‘to reply, pay; give’; *vъzvratiti* ‘to reply; send/give back’ (Damjanović et al. 2004:

³ *Uzglavlje* may also refer to an object under the head, and *uzglavnica* to an object above the head.

⁴ This implies that no significant meaning change has occurred. The semantic traits of both units are simply combined.



44–45). *Uzdarje* could be a calque from Greek, going back to the prefix *ana-* in the meanings ‘up; backward; again’ (Krill 1990: 60), and thus semantically less motivated. The Greek influence on OCS morphology is probable. Certain OCS *vъz-* verbs in Damjanović et al. seem unmotivated or less motivated. Modern Croatian normally does not employ *uz-* but another prefix in the equivalents of similar verbs. However, some OCS forms have been inherited. I believe that the meanings of the Greek unit must be related to each other, and that the meanings of the Slavic “output” in the case of a calque must be somehow related as well.⁵ An explanation of the meaning ‘back’ of *uz* could relate to spatial proximity contexts of the preposition in which an object moves on a horizontal surface: the motion can go in two opposite directions relative to typical horizontally extending landmarks (e.g., rivers, paths, and streets). Thus *dar* metaphorically went along the path in one direction, and *uzdarje* goes back along the path in the opposite direction.

Uzrečica, whose etymology relates either to the noun *riječ* ‘word’ or to the verb *reći* ‘to say’, refers either to a fixed expression or to an individually coined expression that “accompanies” other utterances in various speech situations. Its meaning relates either to the accompaniment meaning of the preposition *uz* or to its accompanying circumstances sense (see Šarić, this volume). *Uzgon* is ‘buoyancy’: thus, in this noun the particle realizes its central meaning: upward motion.

Some nouns are clearly related to verbs; for example, *uzlet* ‘takeoff’ (*uzletjeti* ‘to take off’), *uzvik* ‘shout’ (*uzviknuti* ‘to shout’; the function of *uz-* in verbs is discussed in detail in Section 3). These nouns relate to either a concrete or metaphorical upward motion. *Uzmak* ‘retreat’ relates to the verb *uzmaknuti* ‘to retreat’ (see Section 3.3.) and backward motion. *Uzdah* ‘sigh’ and the related verb *uzdahnuti* ‘to sigh’ strictly seen refer to a single deep breath in; however, the verb and the noun are metonymically used for breath in and out. The chest moves upward in this process, and the prefix concentrates on the upward motion. In *uzvik* ‘shout’ (*uzviknuti* ‘to shout’), the voice metaphorically moves upward.

⁵ Luraghi (2003: 188) notes that the adverb *aná* in Ancient Greek in addition to its preverbal use with motion verbs (e.g., *anabainein* ‘to go up’) extends its meaning as a preverb to an inchoative meaning (e.g., *anaphainesthai* ‘to appear’) and repetition. Interestingly, *uz-* also appears in the first meaning. Particles that indicate both upward motion and an inceptive meaning seem to be based on a universal spatial conceptualization because they occur in non-related languages (e.g., the particle *-ta-* in Aymara has both senses; Clearman England 1971: 24).



The adverbs in Table 1 are originally prepositional phrases containing *uz* and a noun (*uz brdo* ‘up the hill’, *uz dlaku* ‘against’), or *uz* and an old noun stem (*uzgred*: *uz* + PSl. **grędъ* ‘step’). The complex preposition *uzduž* ‘along’ is a combination of *uz* and another preposition, *duž* ‘along’.

The adjectives prefixed with *uz-* are derived from either adverbs (*uzgredan* ‘accessory’ < *uzgred* ‘in passing’) or verbs (*uzlazan* ‘ascending’ < *uzlaziti* ‘to go up’). Some adjectives relate to prepositional phrases; for example, *uz vodu* ‘up the water’ → *uzvodni* ‘upstream’.

The examples in Table 1 demonstrate that the meaning of the preposition *uz* in spatial constructions is well preserved in the different parts of speech prefixed with *uz-*.

3. The prefix *uz-* in verbs

To examine the meaning of *uz-* in verbs, I extracted approximately 60 verbs prefixed with *uz-* from the dictionary by Anić (1998). Verbs formed through secondary imperfectivization were neglected because the semantic contribution of the prefix is observable in the prefixed perfective form. I concentrate on a few semantic types of *uz-*verbs and comment on the most representative examples and their constructional behavior on the basis of corpora examples. The verbs were preliminarily classified into several groups. However, many verbs can belong to more than one group, and so the borders between the groups are rather fuzzy.

3.1. *Uz-* with motion verbs: *Self-motion and caused motion*

Uz- occurs in motion verbs proper: either verbs of self-motion that imply an agent’s volitional change of location, or caused-motion verbs encoding induced motion of objects that results in objects’ relocation.

Self-motion verbs are, for example: *uzaći/uzići* ‘to ascend’, *uzverati se* ‘to climb up’, *uskobeljati se* ‘to clamber up’, *uspentrati se* ‘to clamber/scramble up’, *uspeti se* ‘to climb up’, *uzjahati* ‘to mount (a horse)’. The following verbs are either self-motion or caused-motion verbs: *uzdići (se)* ‘to rise (up)’, *uzvisiti*



(*se*) ‘to elevate/exalt (oneself)’, *uznijeti (se)* ‘to take/carry up’, *uzvinuti (se)* ‘to rise to, attain’. Self-motion is implied with verbs with the reflexive *se*.⁶

With self-motion verbs, the prefix is added to imperfective verbs (*ići* ‘to go’, *verati se* ‘to scramble’, etc.), some of which refer to vertical motion in their base forms, and prompt vertical paths (*peti se* ‘to climb’,⁷ *penetrati se* ‘to clamber’, *verati se* ‘to scramble’). The prefix delineates the path: *ići* ‘to go’ alone implies movement on a horizontal surface or generic movement. With *uz-* (*uzići* ‘to go up’) the path is delineated as a vertical one. At the same time, *uz-* perfectivizes the imperfective verb *ići* ‘to go’.

The situation is more complex with some verbs prefixed with *uz-* that can refer to self-motion when used with *se*, and caused motion in direct object constructions. In *uzdići (se)* ‘to rise’, the prefix is added to the perfective motion verb *dići (se)* ‘to rise up’, which already refers to vertical motion. Some verbs do not exist or are rare in unprefixed forms (**visiti (se)*, **nijeti (se)*). *Uzvisiti* ‘to elevate’ is probably a result of prefixal-suffixal derivation from the adjectival stem *vis-*, and the perfective *-nijeti* in *uznijeti (se)* ‘to ascend’, which goes back to the aorist *nijeh* (Gluhak 1993: 441), does not occur in a non-prefixed form (compare *donijeti* ‘to bring/carry in’, *prenijeti* ‘to transfer’, etc.); its imperfective counterpart is *nos-* (e.g., in *nositi* ‘to carry’).

Examples (1a–e) illustrate construction types with self-motion and caused motion verbs in the corpus.⁸

- (1) a. *One koje je obogatio i uzvisio na položaje.* ‘Those he made rich and elevated to high positions’
- b. *Za vrijeme molitve uzvisio se u mistični zanos* ‘During prayer he exulted in mystic ecstasy’

⁶ The prefix *uz-* also combines with the reflexive *se* in other verb types. See Section 3.2.

⁷ Slavcheva (2006: 1011) labels a similar type of Bulgarian reflexives in which cause-signals are absent (e.g., *kača se* ‘go up, climb’) “motive reflexives,” and describes their prototypical eventivity frame as follows: a participant is generically defined as an actor whose body is intrinsically and fully involved in an action. The transition involved in the setting is conceptualized as internal to the participant, hence the absence of a cause-signal.

⁸ The corpus examples used in this analysis are from *Hrvatska jezična riznica* (HJR; <http://riznica.ihjj.hr/>) if not stated otherwise (some examples were gathered through internet searches).



- c. *Uznese je uza stepenice.* ‘He carried her up the steps’
- d. *Ovaj je duh znao uznijeti najsiromašniji narod.* ‘This spirit knew how to elevate the poorest people’
- e. *Uznijeti se dušom pred njegovo prijestolje.* ‘To exult in spirit in front of his throne’

The examples in (1) imply motion of an object by a mover (which can move itself or cause the motion of another object) from a lower to a higher location. The prefix specifies the upward path. Constructions with self-motion and caused-motion verbs usually contain prepositional phrases that specify spatial goals of motion; see (1a–b): *na položaje* ‘to positions’, *u mistični zanos* ‘in mystical ecstasy’, in which *na* and *u* indicate different shapes of goals. Some settings imply metaphorical motion; for example, (1b) and (1e). *Uzdići (se)* ‘to elevate’ may imply arriving at a higher spatial location or, for example, reaching a better position in a hierarchy. This usage is based on the metaphor BETTER IS UP (Lakoff & Johnson 1980). Metaphorical motion involves abstract goals, but these are also expressed in spatial terms, as in (1b) (*mistični zanos* ‘mystical ecstasy’).

Uz- tends to attach to imperfective verbs that already imply vertical motion in their base form, in addition to referring to, for example, effort of the moving figure (e.g., *peti se* ‘to climb’, *pentrati se* ‘to clamber’). The prefix not only contributes a specific spatial meaning (i.e., the direction of the path) to these verbs; it perfectivizes them at the same time. With verbs that already refer to upward motion in their base forms, the prefix is an “ideal perfectivizer”. It does not seem that the prefix significantly semantically contributes to the verb because the prefix’s meaning is already inherent in the semantics of the simplex verb (see Toops 1975; Janda, Sokolova, and Lyashevskaya, forthcoming).⁹

3.2. Upward motion and its metaphorical extensions

3.2.1. Self-caused or other-caused motion of limited range

This group includes verbs that imply motion of objects or their parts when motion can be related to various, often limited, ranges (e.g., motion referred to by

⁹ This phenomenon is also known as subsumption; see Dickey (this volume).



tresti se ‘to shake’), and when it does not result in change of location. I believe that focusing on the various facets of motion that *uz*-verbs refer to is advantageous for working out a coherent meaning network of the prefix.

Uzdrmati (se) ‘to shake up’, *uzvitlati (se)*, ‘to whirl/swirl up’, and *uspraviti (se)* ‘to straighten up, pull oneself up/upright’ refer to the motion caused by a volitionally acting agent or by natural forces. Not all motion involved is directed upwards. With *uzdrmati (se)* ‘to shake up’, the motion of an object or its parts can be aimed in all directions.

The base forms of *uzdrmati (se)* ‘to shake up’ and *uzvitlati (se)* ‘to brandish’ (*drmati se* ‘to shake’, and *vitlati (se)* ‘to swirl’) are imperfective. The motion they refer to is self-caused or other-caused and does not imply relocation: the objects move themselves, their parts, or other objects in a certain manner and in a certain radius, but remain in their original location. The metaphorical meaning of these verbs can arise due to, for example, inanimate or abstract entities in the setting; see (2b):

- (2) a. *Zemlja će se silno uzdrmati.* ‘The earth will be terribly shaken’
b. *Roman je mogao uzdrmati društvenu savjest.* ‘The novel could shake up our social awareness’

With *uzvitlati (se)*, agents are mainly natural forces (wind, water), but may be humans as well; see (3a–b).

- (3) a. [*Magla*] *koja nastala od sitne prašine, što ju je vjetar uzvitlao.* ‘The fog, created by dust that was raised by wind’
b. *Nad glavom [je] sablju uzvitlao.* ‘He was brandishing a sword above his head’

Uzvitlati (se) ‘to brandish’ and *uzdrmati (se)* ‘to shake up’ refer to the beginning of an action and to a change of state. In this respect, they resemble the subgroups in 3.2.2. The verb *uspraviti (se)* ‘to hold/ straighten up’ relates to the adjective *prav* ‘straight’ and is a result of prefixal-suffixal derivation. It implies vertical motion of a certain degree; that is, a limited length of the upward path, depending on the size of the moved object:



- (4) *Uspravivši naglo tijelo, zakrene.* ‘He suddenly straightened his body up and turned around’

Some base verbs do not imply motion (*viknuti*, *kliknuti* ‘to shout, exclaim’); however, the prefixed forms *uzviknuti* ‘to cry/shout out’ and *uskliknuti* ‘to exclaim’¹⁰ imply a vertical path of fictive motion. These verbs imply a change of the voice’s “elevation.” This is also true for *uzdahnuti* and *uzdisati* ‘to sigh’: the base verbs already refer to upward motion (although not primarily). The vertical path is additionally emphasized by the prefix: the breath goes upward, and the chest moves up as well.

Uskuhati ‘to boil up’, *uskipjeti* ‘to boil up/over’, *uzrasti* ‘to grow up’, and *uskisnuti* ‘to rise’ all imply rising of the initial level of a substance or an object, or their growing. *Uskisnuti* and *uskuhati* refer to the rising of dough, water level, or rising of another liquid in a container when brought to the boiling point. This meaning blends with the change of state. The prefix delineates the vertical path and denotes a change of state:

- (5) *U njemu uskuhala žuč.* ‘Rancor was boiling up inside him’

3.2.2. *From upward motion to emergence and intensive development of actions, and energetic motion*

With some other verbs as well, motion does not result in what is typically conceived of as change of location. Moreover, motion is mostly non-volitional and caused by an external (natural) force. Certain vertical movement upwards is present, although it is not as observable and significant as with motion verbs proper. The prefix is added to imperfective base verbs, some of which are less frequent than their prefixed forms. The base verbs already imply energetic motion related to agitating, stirring up, and becoming stormy. This type of motion is typical for liquids; for example, *burkati* ‘to agitate, upset, disturb’ occurs frequently with *voda* ‘water’ and *krv* ‘blood’, and *kovitlati (se)* ‘to whirl’ with *prašina* ‘dust’ and *oblaci* ‘clouds’, but both verbs also apply to motion of feel-

¹⁰ Similar verbs are sometimes left unclassified in manuals because a clear relation to other *uz*-verbs could not be established (e.g., Klajn 2002).



ings; that is, emotional agitation as does *komešati se* ‘to stir’.¹¹ With many verbs, the spatial meaning of upward motion is obvious: with *uskovitlati se* ‘to whirl (up)’, for example, the affected entity (e.g., dust) moves up. In these prefixed *uz*-verbs, upward motion blends with the beginning of an action and change of state.

Three subgroups of verbs have been identified within this group; however, the borders between these are fuzzy because it is apparent that some verbs may belong to more than one group.

A) *Uzbibati (se)* ‘to (begin to) heave/surge/swell; bring sth. to swell up/spin’, *uskovitlati (se)* ‘to whirl (up)’, *uzvrtložiti se* ‘to swirl up’, *uzburkati (se)* ‘to become heavy/agitated’, *uskomešati (se)* ‘to stir up, agitate, be/become agitated’. The inner motion of an object caused by a natural or other force appears as vertical motion; the path length is limited, as well as the radius of motion.

B) *Uzdrhtati* ‘to (begin to) shake/tremble’, *ustreptati* ‘to shudder’, *uzvrpoljiti se* ‘to fidget/become fidgety/nervous’, *uzbuditi se* ‘to become excited’, *uznemiriti (se)* ‘to be/get upset/bothered/nervous’, *usplamtjeti* ‘to blaze up, burst into flames’, *usplahiriti se* ‘to become flustered/nervous’, *uzobijestiti se* ‘to become wanton’, *uzjoguniti se* ‘to become stubborn/obstinate’, *uzvjetropiriti se* ‘to become giddy’, *ušeptrljati se* ‘to become confused/clumsy’, *uspanič(ar)iti se* ‘to become panic-stricken’. Vertical motion stands for physical/bodily and/or emotional reactions, emergence, or intensive developing of emotions and attitudes.

C) *Uzšetati se, ushodati se* ‘to (begin to) pace back and forth’, *ustrčati se* ‘to run/hurry around’, *uzvrtjeti se* ‘to (begin to) twirl/whirl; to twirl around; to be thrown into a spin’, *uzmuvati se* ‘to mill around’, *ustumarati se* ‘to (begin to) roam/ramble around’, *uzgegati se* ‘to (begin to) waddle around’: vertical motion stands for energetic motion of humans, or for other energetic actions (*uzvikati se, uzgalamiti se* ‘to (begin to) shout/clamor; to shout/clamor around’). All the motion verbs in this group unify a few meaning components, and thus their translation into English may vary. In addition to the meaning ‘to begin’, all the motion verbs imply moving energetically and/or nervously in various directions (back and forth, up and down) and reaching different sub-locations within the

¹¹ The preference claims are based on the corpora examples in HJR. Search performed 21 July 2011.



same broader location.¹² This spatial image is projected onto other actions with non-motion verbs.

In (A), the motion of an object is caused by a natural or other force (the motion range may be different). With transitive non-reflexive verbs, the actor participant role is an Instigator that affects the second prominent participant, the Patient, sending a cause-signal that triggers a transition of the Patient (Slavcheva 2006: 1012). In derived decausative reflexives with *se*, the Patient is in the focus: it becomes the only prominent participant and its prototypical semantic role is transformed to that of an Experiencer that is affected by an action that seems to be “happening by itself” (Slavcheva 2006: 1012). In the first construction type, an Instigator causes motion in someone else. The causer of the motion is the sentence’s subject, and the entity undergoing motion is the direct object. Transitive constructions (see 6a), are much less frequent in the corpus than constructions with decausative reflexives, such as (6b):

- (6) a. *I on je evo došao i škripajući zubima uzbunio, uskomešao dvoje troje ljudi.* ‘He came, grinding his teeth, and upset a couple of people’
- b. *Publika se na malom peronu uskomeša.* ‘The crowd on the small platform became agitated’

The type of the verbal action influences the choice of this prefix: the verbs taking *uz-* in (A) are semantically similar and may function as near-synonyms.

The verbs in (B) refer to energetic motion already in their base form, when an unprefixed form exists (e.g., *vrpoljiti se* ‘to squirm, fidget’) in which humans, humans’ bodies, body parts, and feelings are typically affected by an inner or outer cause, as in (7a). Inanimate objects also occasionally occur as affected participants; see (7b):

- (7) a. *Jačica je uzdrhta.* ‘Jačica started trembling’
- b. *Lijes uzdrhta, voda se uspljuska i napuni lijes.* ‘The coffin shook, the water splashed and filled the coffin’

¹² Bennett (1908: 113) labels Latin verbs with the similar meaning “frequentatives or intensives” (e.g., *cursō* ‘I run hither and thither’).



Some verbs less directly refer to a visible motion. However, they imply an energetic motion caused by emotions; that is, emotional agitation, or the motion of emotions as such. The general image schema of vertical motion underlies all the verbs. Various degrees and intensities of motion may be involved, and various objects may move. The motion of objects, bodies, or body parts metaphorically transfers to the motion of feelings.

Upward motion makes objects either visible or more visible than they were in their original position; this is based on a common metaphor UP IS VISIBLE.¹³ This metaphor relates to everyday experience: lying down or kneeling relates to being less visible and/or hiding. People stand up in order to be more visible to other people (e.g., an audience). From a humans' perspective on natural phenomena, rising of the moon or sun implies their visibility. The emergence of an object is equal to its (increased) visibility.¹⁴ When transferred to an action, upward motion equals the emergence of an action, that is, its beginning, the first stage of its development. In addition, upward motion typically relates to a force. Either an internal or external force is usually present. The existence of a force and energy needed to move one's own body or an object upwards gives rise to an additional notion of intensity, or strengthens this sense if it is already implied in the base verbs. Within the subtype (B), the semantic compatibility of verbs denoting energetic motion and *uz-* influences the choice of the prefix. The crucial semantic extension within these subgroups of verbs links upward motion to visibility and intensity.

All the verbs in (C) are reflexive.¹⁵ *Se*¹⁶ seems to mark these motion events as autocausative (Geniušienė 1987: 251): the only participant(s) in constructions with these verbs (many of which are motion verbs) act(s) consciously, but with-

¹³ Luraghi (2003: 192) also mentions this metaphor in relation to contexts in which the Greek *aná* 'upwards' refers to the rising of a state of affairs.

¹⁴ Lindstromberg (2010: 195) mentions experiential association between "upness" and visibility, which is in the next step linked to appearance and coming into existence.

¹⁵ Some verbs are reflexive in their base form (e.g., *mrdati se* 'to stir') and some are not (e.g., *hodati* 'to go/walk').

¹⁶ For Bosnian/Croatian/Serbian *se* as well, it can be claimed that "the different uses are, historically speaking, extensions of the prototypical reflexive function of the original pronoun, which comes to represent varying degrees of (a continuum of) control that the subject is presumed to have over the action of the verb" (Parry 1998: 2). According to Comrie (1981: 52), semantic roles do not represent discrete semantic relations, but rather a continuum, the labels (e.g. agent, instrument, patient) representing different points along this continuum. The continuum as a whole can be regarded as a continuum of control.



out having entire control over the intensity of motion. Motion is only partly involuntary or unintentional, and this makes this category a transitional category between autocausatives and decausatives (or anticausatives; see Parry (1998: 69)). In my view, the prefix and the reflexive marker should not be analyzed in isolation in similar verbs: I consider both elements together as markers of a distinct construction with the basic meaning of an energetic action.¹⁷ This meaning arises in constructions with motion verbs that do not imply motion upwards in their base form and are not goal-oriented. Energetic motion is implied in the base form of some verbs only; for example, *vrtejti se* ‘to twirl, whirl’, whereas some motion verbs do not imply intensity in their base forms (*hodati* ‘to walk’), and so this meaning relates to the *uz- se* construction as a whole. None of the verbs in (C) occur in concrete spatial settings of upward motion, except for *ustrčati* ‘to run up’ occasionally. With motion verbs in which *uz-* occurs in the primary spatial setting of vertical motion (e.g., *uzletjeti* ‘to fly up, take off’, *uspuzati* ‘to crawl up’), the meaning of an energetic action is (almost) blocked. That meaning can be realized with verbs such as *šetati (se)* ‘to walk’ (→ *uzšetati se* ‘to walk up and down/back and forth’); that is, when the meaning of the base verb relates to motion on horizontal surfaces, and when motion upward is not implied in the base verb.

This type of motion does not imply change of location (here, change of location refers to translocation with boundary crossing; see Zlatev et al. 2011). Accordingly, in (8a), the participants do not cross the boundary of the *ruined pigpens*, although the verb *ustrčati se* ‘to run/hurry around’ implies reaching different positions that are sub-locations within the boundaries of a larger location. A spatial image of upward motion and change of location will not be realized when *uz-* is added to verbs such as *gegati se* ‘to waddle’ and *mrdati se* ‘to stir’. These verbs are not goal-oriented, as the verbs of upward motion are.

For this meaning to be realized, the reflexive *se* is obligatory. *Se* is a marker of internally caused event structure¹⁸ (Holmes 1999). I argue that the entire construction, *uz-VERB se*, contributes the meaning of energetic motion. However, the central notion related to the prefix, vertical motion, plays a significant role in the development of this meaning. Energetic motion is related to motion upwards, energy, and force that is needed for self-motion upwards or for moving an object upwards.

¹⁷ With other prefixes, *se* forms a semantically different construction type; for example, *najesti se* ‘to eat enough’.

¹⁸ Also termed inchoative (Levin 1993).



It is not entirely clear what semantic types of verbs apart from motion verbs tend to follow model (C). The dictionary consulted does not provide many examples of verb types other than motion verbs. Babić (1991) also mentions sound verbs. My search found single verbs of speaking and gestures (e.g., 81 occurrences of *uzvikati se* ‘to (begin to) shout around’),¹⁹ a few occurrences of *uzgalamiti se*²⁰ ‘to be vociferous’ and *uzmahati (se)* ‘to (begin to) wave, to wave around’.²¹ (8a) and (b) are typical usage contexts for this semantic group:

- (8) a. *Pijetli se uskukurijekali, kokice se ustrčale, pure se uspijukale, a svinje stale očajno cviliti i kruliti po ruševnim svinjcima.* ‘The roosters started crowing, the chickens started running about, the turkeys started peeping, and the pigs started whining and growling in the ruined pigpens’
- b. *Ustrčao se, uzskakao, uzletao, uzševrljao, glavom o kamen, o panj i ledinu, glas ispušta, a s glasom vatra izbija. Uzhodao se don Šimun, uscopala se i sestra mu Marta Copica.* ‘He started running, jumping, flying up, moving about, hitting his head on a stone, on a stump, on the ground, letting his voice out and with it fire came too. Father Šimun started pacing, and so did his sister Marta Copica’

The preceding two sections have dealt with various subtypes of motion verbs in which either upward motion in its concrete sense or its metaphorical extensions can be identified: for instance, an “intensive sense” is related to motion upwards. Upward motion metaphorically relates to emergence, to the intensive beginning of actions, and their intensive development. I relate the prefixed forms *uzmoći* ‘can’ and *ushtjeti* ‘will’, used almost exclusively in clauses expressing the relative future, to extension of upward motion and the metaphor FUTURE IS UP (Lakoff & Johnson (1980: 22). The prefix changes the aspectual semantics by

¹⁹ I found no occurrences of verbs such as *uzgovoriti se* or *uspričati se* ‘to (start to) talk intently’ in HJR, but I found individual attestations on the internet.

²⁰ An interesting topic is the relation of the prefixes *uz-* and *raz-* in near-synonyms such as *uzgalamiti se* and *razgalamiti se* ‘to (begin to) speak too loudly’. An internet search (1 Dec. 2011) showed that *raz-* is much more frequent; *uz-* occurs very rarely. A search of the HJR subcorpus revealed similar results. Overall, the differences are due to the spatial images the prefixes relate to: *raz-* relates to a concrete or metaphorical expansion, and spreading (see Belaj 2004), whereas the meaning of the *uz-* verbs relates to vertical motion and its metaphorical extensions.

²¹ Some sources also list the verb *uskopitati se* ‘to rear up’, which cannot be found in the corpus. Its spatial basis is obvious: the image evoked is a horse with its hoofs up; that is, a jumping horse. The verb is used metaphorically in the meaning ‘to venture/become courageous’.



focusing on the change of state. This triggers the dynamic reading of *uzmoći* ‘can’ and *ushtjeti* ‘will’.²² These verbs also imply a certain degree of intensity, but intensity does not seem prominent because of the semantics of the base verbs.

The inchoative meaning of some verbs (in addition to other meaning facets) is clearly related to spatial meaning; that is, vertical motion: the action develops “up.” For example, *uskipjeti* and *uskuhati*²³ ‘to begin to boil’ imply that the level of the liquid undergoing the process is higher than prior to the beginning of the process. Thus, upward motion explains the choice of the prefix.

The meaning of energetic motion blends with inchoative.²⁴ The basis of this meaning is upward motion, which extends to intensity. Therefore, the borders between subgroups (B) and (C) are vague. In some verbs in subgroups (B) and (C), *se* marks involvement of the subject in the action. It is the subject’s emotions that metaphorically move upwards (*uznemiriti se*, *usplahiriti se* ‘to become upset/nervous’; the unprefixated forms **nemiriti se*, **plahiriti se* do not exist; the verbs are prefixal-suffixal derivations).²⁵ In the case of *uzvikati se* ‘to (begin to) shout/clamor’, the unprefixated form exists, but the prefix and the reflexive marker are still added simultaneously to the verb (there is no form **vikati se*). In this case, the verbal action is conceptualized as moving upwards, and informants tend to describe it as energetic.

3.3. Motion in directions other than upward

Only a few verbs that are used in spatial motion contexts do not seem to straightforwardly fit into the central spatial setting of *uz*-constructions; that is, the setting in which *uz*- relates to upward motion. These verbs are: *ustuknuti* ‘to

²² The influence of the Greek prefix *ana-* via OCS verbs prefixed with *vbz-* is possible. See Section 2. On the prefix *vbz-/vbs-* in Croatian OCS texts, see Klenovar (1990), who analyzes the morphological role of this prefix in expressing the future in OCS. Klenovar (1990: 45) points towards the semantic complexity of *vbz-/vbs-* in OCS, in which it functions as a (translational) equivalent for no less than seventeen prefixes in Greek and Latin verbs.

²³ Both verbs can metaphorically be used for getting angry.

²⁴ This seem to apply to more than one Slavic language; see Stambolieva (2008) for Bulgarian.

²⁵ With these verbs, the influence of Greek *ana-* via OCS verbs prefixed with *vbz-* can also be assumed.



back away’ and *uzmicati/uzmaknuti* ‘to retreat, withdraw’.²⁶ The motion type they denote is frequently referred to as “motion backwards.” However, not all contexts with these verbs confirm that motion backwards—concrete or metaphorical—is implied. In many contexts, the meaning is ‘to withdraw’ and can involve any direction.²⁷

“Motion backwards” is a non-productive sense, and certainly a peripheral one, in *uz*-constructions. More than one factor could have influenced this sense. One explanation may again be the Greek influence via OCS: the Greek prefix *ana-*, among other things, means both ‘up’ and ‘back’.²⁸ The question of the conceptual link of the concepts ‘up’ and ‘back’ is generally interesting. “Up” and “back” are related to embodied experience, and their merger can be explained by different perspectives related to various body postures. When a person is standing, what is up is above the person’s head. Imagine that the person changes that body posture, and that the objects above the head follow, retaining the original relation to the person’s head. Now the person is lying down and the perspective is changed. The objects that were above the person’s head when the person was standing are still above the person’s head, but in the new perspective these objects would be conceptualized as being behind the person’s head.

In addition, the prepositional contexts can be helpful. As argued in the analysis of the preposition *uz*, one of its meanings emerging in constructions with a group of motion verbs is motion on a horizontal surface. Close to long horizontal landmarks, motion can go in two opposite directions (forward and backward). I tend to relate this spatial image to the “backward” sense that arises in single *uz*-verbs. Another explanation for this sense could be related to spatial scenes of the verbs *uzmicati/uzmaknuti* ‘to retreat’ and *ustuknuti* ‘to recoil’: the landmark in the spatial images is an object or objects close to which the trajector moves (no matter in which direction). When the motion is perceived as going “backwards,” “backwards” may also be one among several possibilities in the

²⁶ *Micati* and *maknuti* ‘to move’ exist in an unprefixated form, but *ustuknuti* ‘to recoil’ does not. Klajn (2002) also cites *ustegnuti se* ‘to withhold’. However, the semantics of this verb indicate that prefixation with *u-* is more probable, as some other sources suggest; for example, <http://hjp.srce.hr>.

²⁷ In a single verb (*uzvratiti* ‘to return, repay’), a reciprocal meaning is attested. This meaning is also attested in the noun *uzdarje* ‘reciprocal gift’ (See Section 2).

²⁸ I am grateful to Eleni Bužarovska for her reflections on the Greek influence.



spatial image, not the main one.²⁹ Finally, I relate this meaning to one particular usage type of the preposition, in constructions containing *uz trag*; for example, *Uz trag bijegom nek otide, svitlo sunce odkle ishodi* ‘He should follow the trail with haste, towards the place where the sun rises’ (JAZU 1971: 224). Constructions with motion verbs and *uz trag* imply backward motion: if we follow our own footprints—that is, walk close to them—we are obligatorily moving backwards relative to our present position (i.e., towards the source point of our original motion).

3.4. Perfectivization

With verbs that denote movement upward, *uz-* can be expected to derive “natural perfectives” (see Janda 2007) because the meanings of the prefix and the base verb overlap. If *uspeti se* ‘to climb up’ is brought into relation to the base form *peti se* ‘to climb’ (rarely used in the infinitive),³⁰ it is apparent that the meaning of the prefix and the verb overlap. Therefore, *uz-* is the best candidate for the natural perfective of *peti se* ‘to climb’.³¹ The same applies to other verbs for upward motion; for example, the imperfective *verati se* ‘to scramble’. *Uzverati se* is its natural perfective: the meanings of the prefix and the base verb coincide. Handbooks do not mention *uz-* among productive “empty” perfectivizers³² and provide no reasons for the infrequent occurrence of *uz-* in this role, although the reason is quite obvious: a limited number of verbs denote upward motion.

Two cases in which *uz-* seems “empty,” and the verbs do not denote upward motion, are *uzorati* ‘to plow’ and *uskopati* ‘to dig’: the secondary imperfectives of these verbs, a criterion that is often used to test “empty” perfectivizers, are rare or non-existent. With *orati* ‘to plow’ and *kopati* ‘to dig’, one moves on a horizontal axis from spatial location A to B. In an image expressed by the prefixed perfective *uzorati*, one reverses or turns around the vertical line into a horizontal

²⁹ The largest number of examples in HJR imply ‘to withdraw’, ‘to run away’ or ‘to disappear’ with no defined direction of motion.

³⁰ The much more frequent imperfective infinitive with the same meaning is *penjati se*.

³¹ Following the assumption that the semantic compatibility of verbs and prefixes influences the choice of perfectivizers, see Janda, Sokolova, and Ljashevskaya (forthcoming).

³² The theoretical foundation for this analysis does not support the “empty prefixes” hypothesis.



one; *uzorati* and *uskopati* delineate the horizontal route of spatial motion along an (imagined) line. What happens is an image-schematic transformation; that is, a rotation of a vertical path into a horizontal two-directional or multidirectional path: This transformation is also relevant for the prepositional network (see Šarić, this issue).

With regard to *uz-* as an empty perfectivizer, a few other verbs are occasionally mentioned: Klajn (2002) mentions *usprotiviti se* and *uzjoguniti se* ‘to oppose’. These two verbs clearly relate to a metaphorical motion upward (as though the whole body goes “up” in its reaction of rejecting or opposing something). The base forms *protiviti se* and *joguniti se* already denote resistance and opposition. Because opposition metaphorically relates to the vertical dimension and rising (of a body or attitude), *uz-* is a logical choice for the perfectives *usprotiviti se* and *uzjoguniti se*. Babić (1991) also mentions *usprotiviti se* ‘to oppose’ as an illustration for “perfectivity of an action,” although *uz-* in that verb also seems to have an inchoative sense, as it does in *uzdrhtati* ‘to start trembling’. A merger of different senses in the same verb, which is often the case with *uz-*verbs, is an argument for the semantic unity of the prefix meaning: a few different senses relate to the same underlying concept: motion upwards.

In Section 3.2, four sub-groups of *uz-*verbs are presented. It is shown that motion up metaphorically relates to some other meanings (and generates them): to change of state, including changes in persons’ emotional states, coming into existence, becoming visible and the beginning of a process or emerging of an emotional state, and to intensity: developing, growing, escalating, or exploding. In many cases, perfectivization is a side effect of the semantic modification of base verbs.

3.5. Constructional profile of motion verbs prefixed with *uz-*

I have examined a relatively frequent motion verb prefixed with *uz-* (*uspeti se* ‘to climb’) to identify the spatial information that is important in constructions in which similar verbs occur.

As mentioned in Section 3.2.2, motion verbs occur more frequently in *uz-* *se* constructions referring to intense motion than in spatial constructions encoding upward motion. For example, the verb *ustrčati* occurs only five times in the HJR corpus in the meaning ‘to run upward’, whereas there are 35 occurrences of



ustrčati se ‘to start running about’. When the verb means ‘to run upward’, it combines with the path preposition *uz* in four examples (in all of them, the landmarks are *stepenice* and *stube* ‘stairs’), and in one example with the preposition *na* ‘on, onto’. In constructions with the preposition *uz*, the path of motion is highlighted, whereas the construction with *na* highlights the platform-like goal of motion.

Uspeti se ‘to climb’ has a fair number of occurrences in the corpus that allow for some generalizations. I looked at the constructional preferences—that is, frequency of prepositional and non-prepositional phrases that the verb combines with—and the constructional meaning that the combinations reveal. The results are summarized and illustrated with corpora examples in Table 2.

Table 2. Constructional preferences of *uspeti se*.

<i>Uspeti se</i>	Total: 492	Examples
Goal constructions	390	
Spatial goals: arriving on surfaces: <i>na</i> + acc.	243 ³³	<i>Ma čekaj uspet ću se ja na stablo.</i> ‘Just wait, I’ll climb (up) the tree.’
Spatial goals: reaching borders of objects: <i>do</i> + gen.	57	<i>Uspne se do Gaudina stana.</i> ‘He climbed up to Gaudi’s apartment.’
Spatial goals, arriving in containers: <i>u</i> + acc.	51	<i>Uspne se u ordinaciju.</i> ‘He climbed up to the doctor’s office.’
Other spatial goals: <i>nad, pod, među</i> + acc., <i>prama/prema</i> + dat.	8	<i>Jer se tu uspeo nad horizont cijeli veliki šesterokut.</i> ‘Because here a big hexagon climbed (up) the horizon.’
Goal adverbs	24	<i>Uspeti se gore.</i> ‘to climb up.’
Human goals: <i>k</i> + dat.	7	<i>Uspne se k djevojkama.</i> ³⁴ ‘(S)he climbed up to the girls.’
Path/route constructions	43	
<i>uz</i> + acc.	19	<i>Uspnem se uza stube.</i> ‘I climbed (up) the stairs.’ <i>Uspno se mladi sužanj uz bok lađe.</i> ‘The young slave climbed up the side of the boat.’ <i>Unatoč policijskoj blokadi uspeti se uz Mesničku.</i> ‘To climb up Butcher Street in spite of the police blockade.’
<i>po</i> + loc., <i>za</i> + instr., <i>preko</i> +	10	<i>Do stuba po kojima se uspeo.</i> ‘To the stairs, which he

33 Some constructions additionally specify means; for example, *Odlučio [sam se] automobilom uspeti na Medvednicu* ‘I decided to go up Mount Medvednica with my car’.

34 In similar examples, a concrete spatial location is implied, but not expressed. Accordingly, in this example the girls are a secondary landmark located somewhere else.

loc.		climbed up.’
Instrumental	14	<i>Uspne se stubama.</i> ‘He climbed (up) the stairs’
Complex spatial information	15	
Path (<i>uz</i> + acc.) + goal (<i>na</i> , <i>u</i> + acc.)	4	<i>Uspeo se uz stube u kuću.</i> ‘He climbed the stairs to the house.’
Instr. path + goal (<i>do</i> + gen., <i>u</i> , <i>na</i> + acc.)	6	<i>Sanjala je da se uspela mostićem na brod.</i> ‘She dreamed she climbed a bridge to the ship.’
<i>preko</i> + goal (<i>do</i> + gen. <i>k</i> + dat.)	2	<i>Do koje ti se valja uspeti preko devedeset stuba.</i> ‘To which you need climb up more than ninety steps.’ <i>Jana uspe se skokom preko stepenica ka kumi Kati.</i> ‘Jana jumped up the steps to her godmother Kata.’
Source + goal (<i>od</i> . . . <i>do</i> + gen.)	3	<i>Biciklom [se] uspeo od podnožja do drugog kata pariškog Eiffelovog.</i> ‘He climbed from the foot of the Eiffel Tower to its second storey by bike.’
Source (<i>iz</i> + gen.)	5	<i>Uspše se iz raznih krajeva.</i> ‘They came up from different lands.’
Short construction ³⁵	39	<i>Uspela se babica.</i> ‘The old woman climbed up.’ ³⁶

Most constructions with *uspjeti se* ‘to climb’ are goal constructions (390 of 492), and the largest part of these employ accusative nominals with *na*. In a typical spatial setting, moving objects are on a platform-like object at the endpoint of the motion. The container-like goals and borders of objects as goals, as well as goals expressed with adverbs encoding locations at a certain elevation, are fairly frequent, whereas all other goals infrequently occur.

Path constructions with *uspjeti se* ‘to climb’ are much less frequent (43 of 492) and most often contain the preposition *uz*. However, combinations of the prefix *uz-* and the cognate preposition occur in far fewer cases than one would expect, at least when one compares this frequency with the much more frequent co-occurrences of cognate particles such as *u(-)*, *na(-)*, and *do(-)* in spatial constructions. The relatively low frequency of the preposition *uz* in constructions with *uz*-verbs is due to the fact that the path information that the preposition provides does not belong to the prominent spatial information in Croatian—that is, characteristics of the paths are not so often emphasized as characteristics of goals, and goals are much more frequently encoded than paths are. In combinations of cognate prefixes and prepositions in the same construction, part of the spatial information is always repeated. However, the prefix has meanings that the preposition does not have, and the prefix occurs in “short constructions”; that is, with

³⁵ The goal of motion is not specified. Usually, it can be inferred from the context.

³⁶ Some constructions additionally specify means; for example, *Uspeli smo se dizalom* ‘We went up with an elevator’.



no additional spatial information except for the one provided by the prefix. This shows that the combination of the two elements does not result in much redundant information.

The information about the source of motion is the least frequent spatial information encoded in constructions with *uspeti se* ‘to climb’: it is present in eight constructions only, and in three of these it is combined with goal information.³⁷

In spatial constructions with *uspeti se*, as well as with other similar verbs, the focus can be threefold. In contexts with a path preposition, be it *uz* or another one, the constructional emphasis is on the path of motion, as in (9):

- (9) *Uspet ću se uz onaj strmi grobljanski brijeg.* ‘I am going to climb up that steep churchyard hill’

With goal prepositions, the focus is on the goal of motion. Different prepositions delineate different shapes of goals; for example, platform-like goals, as in (10a). Also, a spatial goal on the vertical dimension may be emphasized, as in (10b):

- (10) a. *Fazan predvečer uzleti na granu.* ‘In the evening the pheasant flew up to a branch’
b. *Golub ... uzleti nad krovove.* ‘The pigeon flew up above the roofs’

The prefix in *uzleti* ‘to fly up’ in (10b) delineates the path of the motion, which is directed upward. The preposition *nad* ‘above’ refers to the goal of motion and locates it higher than the roofs.

³⁷ A number of research findings reviewed in Lakusta (2005) strongly suggest that a goal/source asymmetry appears to be a broad and robust phenomenon in language. It has been observed empirically in many different groups (adults, children, people with Williams syndrome, etc.), across many different kinds of events, and in many different languages (e.g., English, Japanese, and Hungarian). The asymmetry has also been observed in many different forms (e.g., order of acquisition of spatial terms, semantic specificity of spatial terms). Linguistic data also strongly suggest that sources and goals have unequal status in the linguistic system. See Brala-Vukanović and Memišević (this issue).



The third type of focus is on the source of motion; this is a very infrequent construction with *uspeti se*:³⁸

(11) *Uspeše se iz raznih krajeva*. ‘They came up from different lands’

All three of these constructions types have a single spatial focus. However, *uz*-verbs occur less frequently in constructions with more complex spatial focuses and multiple spatial information. (12a) focuses on the path and goal of motion and (12b) on the source and path, and (12c) provides an even more complex spatial image, focusing on the entire schema (source-path-goal):

(12) a. *Uspela se uz dvije drvene stube do blagovaonice*. ‘She climbed two wooden steps to the dining room’

path + goal

b. *Na vrhu strme ulice kojom se uspela iz grada*. ‘At the top of the steep road leading from the city that she has just climbed up’

source + path

c. *Na čatrnju se moglo uspeti s dvije strane: kamenim skalama s pročelja, a odostraga željeznim ljestvama*. ‘The well could be reached from two sides: by climbing the stone stairs from the front or by climbing the iron ladder from the back’

source + path + goal

Uz in the prepositional use has its antonym in the preposition *niz* ‘down’; however, *niz* is not attested as a verbal prefix.³⁹ The downward path of motion in contexts with the preposition *niz* is frequently encoded by the prefix *s-*, and so in some contexts the semantic opposite of the prefix *uz-* is the prefix *s-* with its downward-ablative meaning as in (13):

(13) a. *Strčao sam niz stepenice*. ‘I ran down the stairs’

b. *Njegov je zrakoplov toga dana uzletio, a sletio nije do danas*. ‘His airplane took off that day, and it still hasn’t landed’

³⁸ Source constructions occur more frequently with the verb *uzletjeti* ‘to take off’: about 13 occurrences out of 164.

³⁹ It is attested in nouns.



Energetic motion constructions

With regard to constructions denoting energetic motion and their combination with other spatial information, the following tendencies were noticed (the corpus examples with the verb *ustrčati se* ‘to run/hurry around’ were examined): these verbs do not necessarily combine with any other spatial construction. The constructions *uz- ... se* mainly concentrate on the non-agentive participant⁴⁰ in the subject position and its condition, as in (14):

- (14) *Kokice se ustrčale, pure se uspijukale.* ‘The chickens started running about, the turkeys started peeping’

When the verb occurs with prepositional constructions, these are path constructions for instance, with the prepositions *po* (most frequently) and *oko*; see (15a–b). Other spatial constructions are spatial instrumental and adverbial expressions indicating multiple directions, as in (15c–d):

- (15) a. *Mali se Trbuheki ustrčali po križanju.* ‘Little Trbuheks started running about the crossing’
 b. *Koliko se slugu ustrčalo oko pečiju.* ‘Many servants started hurrying about the ovens’
 c. *Ustrčaše se gore-dolje po mom krevetu.* ‘They started running up and down my bed’
 d. *Ustrčali su hodnicima i dvorištima.* ‘They ran about the halls and courtyards’

4. Metaphorical extensions and the network of the prefix *uz-*: A summary

Figure 1 presents the meaning network of the prefix *uz-*. As has been shown in the previous sections, the meaning of upward motion directly relates, via slight

⁴⁰ Non-agentivity implies that a participant in an event acts at least partly unintentionally. Events of *uz- ... se* constructions can involve a certain degree of intentionality, especially if the actors are humans.



transformations and extensions, to the largest group of *uz-*verbs. Therefore it can be considered the central meaning of the prefix *uz-*. The central meaning relates to all other meanings via meaning extensions and metaphorical links. For the meaning network of the prefix, some parameters of the prepositional usages are relevant. It has been argued that upward motion implies the proximity of a trajector and a landmark on the vertical axis. Proximity on the vertical axis extends to general proximity, and upward motion transforms into horizontal motion. The link between the two is elongated objects; that is, typical objects in the spatial contexts with horizontal motion.

A blend of the proximity and horizontal motion meaning (represented by the dotted circle in Figure 1) is not actively realized in the prefix domain, as it is in the prepositional domain. However, it influences the meanings in the prefix network and is thus a non-active part of the network that generates other, active parts.

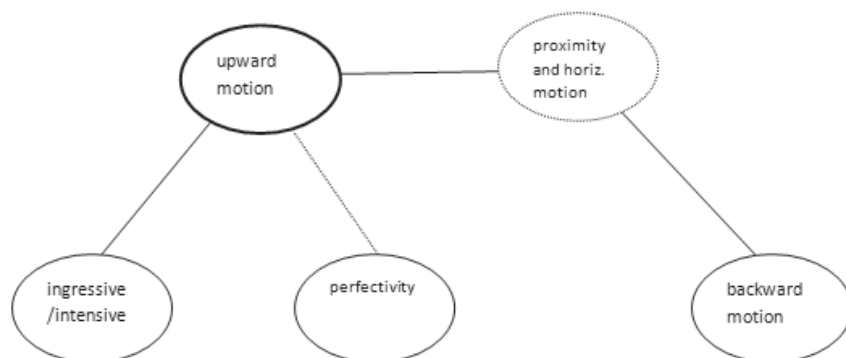


Figure 1. The meaning network of the prefix *uz-*.

The following paths of extension of the upward motion meaning are relevant for the semantics of *uz-*verbs:

- Upward motion → Emotional agitation
- Upward motion → Visibility; appearance, coming into existence, beginning of an action, emergence
- Upward motion → Energetic action

All these extensions can blend in one and the same verb.

Lakoff and Johnson (1980) relate UP-DOWN metaphors to general notions of good and bad, sadness and happiness, and so on. However, as can be observed in



the examples in Section 3.2.2., motion up may relate to some other general notions: to coming into existence, becoming visible, developing, growing, escalating, and exploding.

The meanings of prepositions and prefixes were originally spatial, and additional meanings arose from contextual uses. The usage contexts gave rise to inferences that, as distinct senses, became associated with the lexical form. The variety of contexts in which a spatial particle is used in the course of time influences new interpretations. Some interpretations become strongly associated with the particle because of recurring usage, and so meaning extensions relate to contextualized usages and inferences that can be derived from frequently occurring contexts (see Tyler & Mueller 2011).

Motion on the vertical axis is a prototypical spatial scene of the spatial particle *uz(-)*, and this is historically its oldest attested sense. Furthermore, this meaning is common to both the preposition and prefix, and it is the meaning attested for the prefix in all the Slavic languages. The meanings of *uz(-)* as a preposition and prefix are closely related. As has been shown in the analysis of the preposition (Šarić, this issue), different prepositional senses blend in typical prepositional constructions (motion upwards blends with proximity and contact). Motion on a horizontal surface is an important factor for the development of some prefix meanings. The prefix has preserved the main spatial meaning of the preposition in its most typical usages. The extensions are all based on upward motion; that is, the central meaning of both the prefix and preposition. The meaning of upward motion meets the criteria for the primary sense of this spatial particle. Tyler and Evans (2003) single out a few such criteria. Among these are the earliest attested meaning; in the case of *uz*, this meaning is motion upward. A further criterion is predominance in the semantic network;⁴¹ that is, the sense that has initiated the rise of other, derived senses. The analysis has shown that all the derived senses of *uz(-)* relate to upward motion. A further relevant criterion for establishing a central sense is the use of a particle in composite forms: Tyler and Evans suggest that the failure of a particle to participate in these forms should

⁴¹ Liamkina (2007: 126) notes that predominance in the semantic network alone does not imply that a certain sense is the most frequently used one in the current spoken and written usage. A corpus analysis can reveal which sense(s) seem to be the predominant one(s), and one can arguably postulate frequency of occurrence as an additional criterion. This criterion can sometimes contradict the “earliest attested meaning” criterion because the scope of a particle’s meaning may shift considerably over time, and one has to decide on the importance of the diachronic versus synchronic evidence.



exclude a particular sense from being considered a primary one. The upward motion sense of the particle *uz(-)* also meets this criterion. This meaning occurs with the preposition and prefix, and it is productive in coining new words based on metaphorical extensions from upward motion to, for instance, intensity and agitation.

In this analysis, a number of relevant questions have been neglected and left for future investigation. Among these is the relation of the prefix *uz-* and the prefix *za-*: both can refer to the beginning of an action. Their meaning overlap is an interesting topic for future investigations. In the inventory of the OCS verbs, some inchoatives were formed with the prefix *vъz-*. These are prefixed with *za-* in modern Croatian (e.g., *vъzdrydati – zaridati, zaplakati* ‘to begin to cry’). Another interesting issue that deserves a detailed study is the relation of the prefixes *uz-* and *raz-*. When an action begins to develop from a zero point, it can be conceptualized as developing along the horizontal axis or along the vertical axis, or in multiple directions and on both axes. If the emphasis is placed on its development along the vertical axis, the choice of the prefix *uz-* is expected. Development in different directions and on both axes would trigger *raz-*. However, this is merely an assumption and must be examined in a detailed study.

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Authors' address:

Department of Literature, Area Studies, and European Languages,
University of Oslo, Norway
P.O. Box 1003, NO-0315 Oslo
Norway
E-mail: ljiljana.saric@ilos.uio.no

KOGNITIVNOSEMANTIČKA ANALIZA PREFIKSA *UZ* U HRVATSKOM JEZIKU

U članku se razmatra značenje prefiksa *uz-* u hrvatskom jeziku. U prvom dijelu analize prefiks se analizira u imenicama, priložima, složenim prijedlozima i pridjevima, dok se u nastavku istražuje glagolski prefiks *uz-*. Nakon utvrđivanja nekoliko podgrupa glagola s prefiksom *uz-* koje objedinjuje značenje kretanja uvis, slijedi pregled značenjskih ekstenzija ovoga prefiksa u domene koje su naizgled manje povezane s kretanjem uvis, kao i analiza ponašanja reprezentativnog glagola kretanja s prefiksom *uz-* (*uspjeti se*) u njegovim konstrukcijama. Temeljno je pitanje u analizi kako je središnje značenje prefiksa, kretanje uvis, povezano s ostalim njegovim značenjima.

Ključne riječi: prefiksi; prostorna značenja; prefiks *uz-* u hrvatskom jeziku; kretanje uvis; značenjske ekstenzije temeljene na metaforama.