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A preliminary semantic analysis of the Croatian preposition *u* and its Slavic equivalents

The subject of this article is a cognitive semantic analysis of the Croatian basic containment preposition *u*. This analysis seeks to elaborate image schemas underlying stationary contexts with *u*-locatives and dynamic contexts with *u*-accusatives. The analysis aims to show general directions of prepositional meaning extensions from the spatial into other domains, as well as point to the convergences and divergences in the usage of basic spatial prepositions in Slavic.

Keywords: spatial prepositions; preposition *u*; containment; image schemas for stationary and directional contexts.

1. Introduction: Containment as a basic spatial relation

An understanding of objects and the way in which they relate to each other in physical space is a basic human cognitive feature. The concepts represented by spatial prepositions are the basis on which people construct their mental models of the physical world. Jean Piaget ([1936] 1952) recognized the fundamental importance of these concepts by characterizing the first stage of cognitive development as “sensorimotor knowledge.” This refers to infants’ understanding of the world by watching what happens when objects are manipulated. Relationships between objects are well established conceptually before the corresponding words for these relationships are used. The fundamentality of spatial relations is the reason that people use space as a domain for structuring other, less concrete aspects of human experience. If someone says that he is *in trouble*, he

is treating trouble as a container and himself as a contained object. When speaking about a *close* relationship with our friends, we are constructing the notion of intimacy in terms of physical proximity.

The relationship between language and reality is surprisingly complex, even if one talks about elementary spatial relations. The semantic network of the basic spatial prepositions in the Slavic languages illustrates this claim. This article focuses on one of the basic spatial prepositions in Croatian (*u* ‘in’) and includes comparative observations based on equivalent containment prepositions in Russian and Polish (*v* and *w*, respectively).

The Slavic languages considered here typically use the locative preposition *u/v/w* to refer to a situation in which one object, the trajector (TR), is contained within another, the landmark (LM). Contexts with *u/v/w* within accusative phrases imply movement of the TR in the direction of the LM, or towards its interior. Accordingly, this elementary containment preposition ideally designates the relation of the TR and the LM with the LM being a container-like object and the TR being a contained object located in the interior of the LM. This is a fairly straightforward geometrical configuration. However, even focusing on the uses of this preposition denoting spatial relations between objects in physical space only, the containment preposition is used in a whole range of situations in which there is only an approximation to this ideal meaning. Various usage contexts highlight different aspects of prototypical containment: positional control, envelopment, protection, or occlusion. The following examples can be considered prototypical for the use of *u*, referring to a situation in which the TR is wholly contained within the LM:

- (1a) Mačka je *u* kući.
‘The cat is in the house.’
- (b) Knjiga je *u* torbi.
‘The book is in the bag.’

However, even in prototypical cases, the usage contexts of *u* imply a great deal of abstraction and simplification. This primarily concerns the nature and form of the LM. Although *kuća* ‘house’ and *torba* ‘bag’ are very different types of containers, the relation can be expressed with the same preposition as long as the LMs can be conceptualized as containers. Prototypical usage types imply a well-defined three-dimensional container. However, there are uses of *u* with less prototypical containers than a house or a bag, or even uses in which the LMs can hardly be considered containers or container-like objects. An important characteristic of container-like objects is clearly defined boundaries. Houses and bags

have much better defined boundaries than gardens because a garden lacks a clearly defined upper boundary. Nevertheless, the following example contains *u* and still illustrates one of its common usage fields:

- (2a) Pas je *u* vrtu.
'The dog is in the garden.'
- (b) Ptica leti *u* vrtu.
'The bird is flying in the garden.'

Even if the garden does not have a clearly defined upper boundary, a notational boundary is construed. One would use example (2b) if the bird were flying at a relatively low height. However, if it flew 200 meters above the garden one would not say that the bird was *in* the garden. Although there is not a well-defined three-dimensional container in the *garden* example, it is construed as one. Therefore, the notion of construal is a basic notion when analyzing the relation of human categorization as reflected in prepositional semantics. The following examples also contain *u*, thus illustrating great flexibility in the manner in which the notion of containment is applied to real-world relations:

- (3a) Cvjetovi su *u* vazi.
'The flowers are in the vase.'
- (b) Stolica je *u* kutu.
'The chair is in the corner.'

In (3a), the flowers are not entirely inside the vase; that is, their main part is not inside. In (3b), the indeterminate nature of the object designated by the noun *kut* 'corner' allows for the possibility of construing it with imagined boundaries. A container that is construed as a volume in one case might be construed as an area in another. That is, the concept of containment itself manifests a certain degree of flexibility.

The function of the LM plays an important role in construing an object as a container. If the purpose of a snare is to hold an object in a particular position, it is naturally construed as a container:

- (4) Noga *u* omči.
'A foot in a snare.'

However, if a very similar object serves as the LM (a round object of certain thickness) and its function is not to hold another object in a particular position, it

is odd to conceptualize the situation stating that the TR is *in* the LM. A bracelet does not have the function of supporting or holding. The conceptualization of the relation of two objects is the opposite, with the arm functioning as a fixed entity, the landmark, with respect to which the TR (*narukvica* ‘bracelet’) is located:

- (5a) ?Ruka *u* narukvici.
‘An arm in a bracelet.’
- (b) Narukvica *na* ruci.
‘A bracelet on an arm.’

Similar examples show that, in order to explain the language forms used to code different situations, one needs to go beyond the level of surface topographical relationships. Relevant functional relationships grounded in background knowledge are crucial to an understanding of the forms of coding the spatial relations that reflect aspects of everyday human experience.

In the Slavic languages, spatial information is conveyed through various linguistic means, the most basic of these being prepositions, cases and prefixes. Prepositions cannot be satisfactorily analyzed by abstracting from the cases they combine with. A specific spatial image with all its relevant parameters is mediated through a prepositional phrase marked for case. The interpretation of the conceptual spatial relation denoted by a preposition such as *u* is in part constrained by sentential context; that is, by the characteristics of the actions or entities that are designated by the entire construction. Lakoff and those following his analysis of *over* (Lakoff 1987; Brugman 1988; Brugman and Lakoff 1988) assumed that the nature of spatial meaning is due to the contribution of distinct senses associated with a preposition, rather than allowing sentential context a significant role. The TR and/or the LM crucially contribute to the trajectory shape, and the verb contributes path information. Of course, to suggest that the spatial meaning associated with prepositions is distributed over the utterance in which the form occurs does not mean claiming that the preposition itself is devoid of meaning. On the contrary, prepositions have general meanings associated with them, including a functional element. However, the precise interpretation assigned to prepositions is constrained and delimited by sentential context, including the noun phrase in the role of the TR and the noun phrase in the role of the LM, as well as the verb that occurs in the utterance.

The Croatian preposition *u* combines with the locative, accusative, and genitive:

- (6a) Knjiga je *u* torbi_{LOC}.
'The book is in the bag.'
- (b) Stavljam knjigu *u* torbu_{ACC}.
'I am putting the book into the bag.'
- (c) *U* nas_{GEN} danas pada kiša.
'It is raining here [at our place] today.'

Although in all three examples the same prepositional form is used, *u* is a containment preposition in examples (6a) and (6b), in which it exhibits quite different semantics than *u* in (6c), where it indicates spatial proximity, thus being equivalent to *kod* 'by, close to, at' (*Kod nas danas pada kiša* 'It is raining here [at our place] today'). For these two different concepts, that of containment and that of physical proximity, Polish and Russian have two prepositions, *u* vs. *w* and *u* vs. *v*, respectively (Pol. *u bogatego pana* 'at a rich man's house/place' vs. *w Krakowie* 'in Kraków'; Russ. *u vrača* 'at the doctor' vs. *v Moskve* 'in Moscow'). Croatian *u* as illustrated by the examples in (6) is an amalgam of these two prepositional concepts. Two prepositions expressing the two concepts (containment and spatial proximity) also existed in Old Church Slavic (*vъ* and *u*). Gerodes (1963: 353) states that *u* in genitive constructions in OCS¹ has an ablative meaning, synonymous to *otъ* + genitive, both being used for the same Greek construction. OCS *u* also has a quite opposite meaning, indicating spatial proximity. Gerodes notes that constructions of the type *u vasъ* and *vъ vasъ* 'among/with you', which had a similar meaning, might have influenced the interchange of the two prepositions on South Slavic territory that might be connected with the amalgamization of the both concepts in standard Štokavian. The existence of one form representing two (historically) different concepts is a result of the phonetic development of Štokavian, in which Common Slavic *vъ* > *u*, resulting in the phonetic merger of the old prepositions *vъ* and *u*.

This analysis concentrates on elaborating the semantic network for *u* as a containment preposition, leaving the other sense (that is, the sense associated with the homonymous preposition governing the genitive) to the analysis of spatial proximity concepts. Accordingly, this analysis concentrates on *u*-locatives and *u*-accusatives. The preposition *u* evokes a Container schema with a principally visual content. Enclosure and boundedness are primary visual properties that are frequently experienced together. The full image schema² also includes haptic

¹ The following abbreviations will be used throughout the paper: OCS = Old Church Slavic, Russ = Russian, Pol = Polish, Cro = Croatian.

² Image schemas as described by Lakoff and Johnson (1987) are abstractions of relatively simple perceptual and motor structures that recur in everyday bodily experience.

content because the body is construed as a container and because humans physically manipulate containers. Certain aspects of the Container schema that have important linguistic consequences can be distinguished as the image schema's abstract roles. These are the Interior, Exterior, Boundary, Container, Contents, and Portal.

2. *U* + locative case: Stationary contexts

2.1. Central schema with three-dimensional objects

The ideal meaning of *u* governing the locative in Croatian implies an object (the TR) contained within another, the LM. The preposition *u* is a basic containment preposition ideally designating the relation of the TR and the LM in which the LM is a container-like object and the TR is a contained object located in the interior of the LM, an ideal case being a three-dimensional object (A: Containers bounded in three dimensions):

- (7) *Kreda je u kutiji.*
'The chalk is in the box.'

The same relation of the TR and the LM is implied with *u* governing the accusative, yet the constructional meaning is different. A construction employing the *u*-accusative entails a motion verb. The accusative case prototypically denotes destination. The accusative construction implies that the TR is moving towards the LM as a container-like object or towards the interior of the LM. In the latter case, the interior is the endpoint, the goal of the TR's movement.³

In this central schema, the semantics of the preposition *u* within the locative construction most clearly contrast with other prepositions—for example, *Kreda je na kutiji* 'The chalk is on the box', in which localization on the exterior of the LM is contrasted to localization in the interior of the LM expressed with the *u*-construction in example (7).

³ A check of the frequencies in the corpus *Hrvatska jezična mrežna riznica* at <http://riznica.ihj.hr> confirms that *u*-locatives have a higher frequency than *u*-accusatives. Similar statistical frequency relations have been observed for Polish, with *w*-locatives being much more frequent than *w*-accusatives (Przybylska 2002: 205). However, this is connected with the common use of the preposition *do* in directional spatial contexts in Polish (whereas *u* would be used in Croatian).

In its topological sense, the preposition *u* provides the following information about the LM: it has an interior and that interior is the possible location of another object. However, the idea of an interior is part of an abstract image of a container and might be connected with objects that are far from being even slightly similar to prototypical containers in the real world. This abstract container schema gives rise to different concretizations of the image of the landmark, resulting in schemas that might be subordinated to, or directly or indirectly derived from, the central schema. The geometrical conceptualization of a prototypical three-dimensional container serving as the LM ideally involves cube-like objects with six sides and an interior. It includes objects delimited from all sides; that is, from the top, bottom, and all four sides: front and back, left and right. Various deviations from the ideal schema are possible. That is, there are objects the form of which diverges to some extent from that of a prototypical container, but they are still conceptualized as containers; i.e., objects capable of containment and enclosing. Typical landmarks in the central schema are three-dimensional objects, such as small container-like objects capable of containing and/or enclosing other, smaller objects or materials (e.g., *kutija* ‘box’, *ladica* ‘drawer’, *džep* ‘pocket’, etc.), as well as large objects such as houses and buildings, and parts of the buildings inhabited by humans (e.g., *kuća* ‘house’, *soba* ‘room’), or objects visually and/or functionally similar to those capable of enclosing humans (e.g., *tramvaj*, ‘tram’, *autobus* ‘bus’).

2.2. Realizations/instantiations of the central schema: Deviations from ideal examples

One instance of the central schema employs objects lacking their upper side, such as cups and bowls. However, the conceptualization of their form matches the container schema (B: Containers lacking a top):

- (8) Voda je *u* čaši.
‘Water is in the glass.’

In her discussion of the English expression *the pear in the bowl*, Herskovits (1982: 75) points to an important issue related to spatial prepositions and the notion of containment. She observes that not only topological aspects are important in construing spatial images. The relation of physical forces defining the relation of the TR and the LM is crucial; that is, the fact that the LM determines the TR’s position. This enables the coding of a situation using a containment preposition even if the TR is not in the interior of the LM at all, but the LM nevertheless determines the TR’s position. This can be illustrated with the image of a bowl full of pears. Even if one pear is on the very top of the others and entirely outside the

boundaries of the bowl, not even touching it, it is still possible to describe the situation using the containment preposition *in*.

Objects that are open on two opposite sides are also conceptualized as containers (C: Containers lacking two opposite sides):

(9a) *Vlak je u tunelu.*
'A train is in the tunnel.'

(b) *Voda je u cijevi.*
'Water is in the pipe.'

A container-like LM might have two defined planes only, such as *kut* 'corner', which has only two connected planes that delineate its interior (D: Containers bounded by two planes):

(10) *Stolica je u kutu.*
'The chair is in the corner.'

In order to be conceptualized with the help of *u*, the TR must be situated close to the lines that delineate the LM's interior. If there is more than one object in the space one understands as a corner's interior, the question is how far an object can be from the point where two vertical surfaces are connected for its position to be describable with *u* and if the outer object(s) in the spatial arrangement still can be brought into a relation with the LM *kut* using *u*.

A container-like LM may also lack a bottom (E: Containers lacking a bottom):

(11) *Djeca spavaju u šatoru.*
'The children are sleeping in the tent.'

The image of a container and the question of whether a particular relation of the TR and the LM will be conceptualized with *u* – which would imply that the LM is seen as a container and/or that the TR appears to be enclosed within its borders – often depends on several different factors. The structure of an object allows for various perspectives when observing the localization of the other objects with respect to it. A specific perception of the LM's structure and function and the way it determines the TR's position may result in a different conceptualization and, consequently, in the possibility of choice between a few prepositions. Various prepositions might be used to describe the same situation. This phenomenon is observable not only when comparing various languages, but also

within a language. If the tent in (11) were not primarily seen as a material enclosing children, but something that hides and/or protects them from the upper side, the situation would be coded with *pod* ‘under’:

- (12) Djeca spavaju *pod* šatorom.
‘The children are sleeping under the tent.’

Variation in prepositional use with *u* and *na* ‘on, at’ in some contexts is common to the Slavic languages. There are situations in which it is possible to conceptualize a situation in two different ways. Concerning the spatial arrangement of the relevant objects, various conceptualizations are connected with the form of the LM and the exact position of the TR with respect to the LM. Furthermore, the perspective of an observer might influence the choice of preposition. The following example, coded with two prepositions, reflects the same spatial configuration. However, the variation of two prepositions involves two slightly different image schemas:

- (13) Sjedi *u* fotelji/*na* fotelji.
‘He/she is sitting in/(on) the armchair.’

The form and/or depth of the armchair might influence the choice between two prepositions. In the case of a large armchair that is capable of hiding someone sitting in it, the preposition *u* could be expected. Furthermore, speakers decide on the choice of a preposition in a concrete speech situation. The form of the LM might affect this decision. If a speaker concentrates on the container-like characteristics of the LM, accenting the enclosure of the TR within the borders of the LM, the preposition *u* will probably be used. On the other hand, if the most important information from the speaker’s point of view is that the LM is a foundation that supports the TR, the probability of the preposition *na* will increase. Also, coding of a situation with *u* or *na* can be influenced by certain other details in spatial arrangement. Abstracting from the container’s form, the TR can be located deep in it or more towards its outer part, seen as a surface. If all the TR’s parts are invisible to the observer due to the TR’s concrete spatial position with relation to the LM, the preposition *u* can be expected. Accordingly, the details of the exact position of the TR, as well as the image of the situation in the eyes of an observer/speaker, influence the choice of preposition. Hence, the inferences connected with the examples in (14) are:

- a) The person in the bed is not (entirely) visible. He/she is under the blankets or sheets; that is, covered by something.
- b) The person lying is not covered. The person is on the top of the blankets/sheets and for the most part visible to the observer.

(14a) On leži *u* krevetu.
'He is lying in the bed.'

(b) On leži *na* krevetu.
'He is lying on the bed.'

Two different images are connected with the following sentences, causing *u/na* variation. The differences emerge from the exact form of the LM (*klupa* 'bench'), the exact position of the pupil, and the perspective of the observer:

(15a) Učenik sjedi *u* (školskoj) klupi.
'The pupil is sitting in the (school) bench.'

(b) Učenik sjedi *na* klupi (u parku).
'The pupil is sitting on the bench (in the park).'

In the first sentence, a specific form of bench is implied. An old-fashioned school bench consists of a solid wooden back, a part for sitting, and a desk. Someone sitting there is surrounded to a great part and is thus only partly visible. In the second sentence, another type of bench is implied: prototypically, a bench with a back that covers only a small part of the body or a bench without a back. A person sitting there is much more visible. Consequently, an abstract image schema underlying it is a Platform image schema; that is, the placement of an object on a surface is implied. If *na* were used in the situation with the old-fashioned school bench, *na klupi* would imply a location different from the standard one in which a pupil is sitting, writing, or reading. The preposition *na* would imply that the pupil is sitting on the back of the bench.

A choice possibility between two prepositions exists if the LM has an interior and an exterior capable of enclosing objects or supporting them. The choice depends on the concrete position of the TR. In example (16a), the person is in the interior of the ship – for example, in a cabin, or in another closed space belonging to the ship's interior. In example (16b), the person is situated on an open or partially open part of the ship (such as a terrace or deck):

(16a) On je *u* brodu.
'He is in the ship.'

(b) On je *na* brodu.
'He is on the ship.'

Several semantic parameters are important for the realization of the central image schema of the preposition *u* and its instantiations. *Topological parameters* define the position of the TR in the interior of the LM. The LM is a container-like, three-dimensional object. The second parameter is connected with the observer's *perception*: the TR as a whole, or at least its significant part, must be hidden from the observer's view directed towards the interior of the LM. A third decisive parameter is the *physical relation* between the LM and the TR. The LM determines the TR's position; that is, at least two planes of the LM determine the TR's position. Functional features determine the LM as a container of the TR (being an object, material, liquid, etc.). If the TR is a person, the LM is its location or an object enclosing/supporting it from more than one side, and the TR is (partly) hidden from the observer's view. If the contextual information suggests it, or the speaker stresses that the TR is supported by the LM, and if most parts of the TR are visible, the preposition *na* would be used instead of *u*.

Concerning the central schema and its instantiations in Polish and Russian, there are no significant differences compared to Croatian. One of them is related to prepositional coding with institutions and forms of transportation serving as LMs. This problem was discussed as part of the semantic analysis of the preposition *na* (Šarić & Brlobaš 2001: 244, Šarić 2003: 189–192). An institution might be conceptualized as a building, thus evoking the Container schema. However, an institution might be seen as a metonymy for activities taking place in its framework. This understanding will enforce the use of the preposition *na*. The concrete realizations are a part of language conventions: In Russian, *v universitete* 'at the university' contrasts with *na fakultete* 'at the faculty', whereas in Croatian both institutions are coded with *na* (*na sveučilištu/fakultetu*). The idea of separating the concrete meaning of an institution (which evokes the Container schema) and the meaning indicating activities related to it is observable in the Polish dictionary, which describes *pracować w uniwersytecie* 'to work at the university' as correct usage and *studiować w uniwersytecie* 'to study at the university' as incorrect usage (NSPP PWN 1999: 1133).

The variations discussed in the section 2.2. related to the different possibilities of conceptualizing a situation are observable in Polish and Russian as well (Pol. *w namiocie/pod namiotem* 'in the tent/under the tent'; Russ. *v palatke/pod palatkoj*, 'in the tent/under the tent', Pol. *Chłopak leży na/w łóżku* 'The boy is lying on/in the bed', Russ. *Leżała na/v posteli* 'She was lying on/in the bed').

2.3. Image schema involving a LM as a two-dimensional object

In the second image schema of *u*, the LM is a two-dimensional object:

- (17a) Slika *u* zlatnom okviru.
'A painting in a golden frame.'
- (b) Stajati *u* vratima.
'To stand in a doorway.'

In (17b), the image implies being located in a particular part of the doorway. The doorframe encircles the person in the same way a frame encircles a painting. This image is connected with somebody being in a particular geometrical position within the doorframe; for example, while hesitating to come in. The image of an object being in physical proximity to the door would entail *na: ljudi na vratima* 'the people at the door'. In addition to the meaning of physical proximity, *na* indicates that two objects are closely associated with each other.

When conceptualizing the relations within this schema using the containment preposition *u*, the observer abstracts from many actual properties of the LM. The field available to his view is conceptualized as a container: *u granicama* 'in/within the borders', *u krugu* 'in the circle'.

The semantic characteristics of this schema are describable as follows: the TR is located in the interior of the LM. The LM is a two-dimensional object and it restricts the observer's view. Consequently, only a part of the TR that is located in the interior can be seen. The borders that define the LM's form are geometrical lines. The TR is surrounded on all sides by the LM's borders; that is, it is located within the borders of the LM.

2.4. Image schema involving a LM as a measureless object, an abstract point

The third schema implies the geometrical idealization of the LM. It is conceptualized as a measureless object, as an abstract point. The cognitive possibility of transforming the LM into the form of a one-dimensional object, specifically a point or line as in (18)-(19), gives rise to the use of *u* in other domains, for example, in temporal.

- (18) Pravci *x* i *y* sijeku se *u* točki *z*.
'Lines *x* and *y* intersect at point *z*.'

The interchangeability of the prepositions *u* and *na* (... na točki *z*) in (18) demonstrates the relation of their meaning networks. When the TR is a physical or geometrical object contiguous with the LM that is conceptualized as a line, the relation will most frequently be coded with *na*:

- (19) Koordinatni sustav *na* pravcu.
'The coordinate system on a straight line.'

The possibility of geometrical idealization and abstraction of the central usage fields of *u* that allow for the use of *u* in the examples above explains the equal possibilities that *u* and *na* partly have when used in non-spatial domains, such as temporal.

2.5. Image schema involving a LM as a layer on the external sides of a TR

This schema is characterized by a spatial configuration in which the LM covers the external areas of the TR. The LM is a material. The peculiarity of this schema in comparison with the others elaborated so far is the fact that the LM is seen as a moving object, whereas the TR is stationary:

- (20a) Čokolada *u* papiru.
'Chocolate in paper.'
- (b) Karanfile *u* celofanu.
'Carnations in plastic wrap.'
- (c) Poklon *u* omotu.
'A present in wrapping paper.'

From the topological point of view, the construction *u* + LOC in this schema applies to a relation of the TR conceptualized as a three-dimensional object and the LM as material that surrounds the surface of the TR in such a manner that the LM covers the TR from at least two opposite sides, forming its "envelope." The construction in (20c) has its lexical converse in the expression *na* + LOC: *omot na poklonu* 'wrapping around a present'. Considering perceptual factors, the TR is an object completely or partly hidden from the observer's view. The impact of the physical forces in this relation of the TR and the LM is different from the impact observable in the central schema for *u* + LOC. The LM does not determine the TR's position. The situation is exactly the opposite. The form of the LM adapts to the form and position of the TR. As for the functional aspect of the relation, the LM's function is that of a covering.

An instance of this schema also occurs when the LM is a substance that covers the surface of the TR:

- (21) Lice mu je *u* prašini/pjeni.
'His face is [covered] in dust/foam.'

In a variation of the same schema, the LM may be a group of objects that are smaller than the TR. It is spread over the surface of the TR, which serves as a fundament. This schema implies the transformation of the LM as a single object to the LM as a group of objects. The outward appearance (e.g., color) of the group of objects serving as the LM contrasts with the outward appearance of the TR, as in (22):

- (22a) Cijelo lice mu je *u* pjegama.
'His whole face is covered with freckles/in freckles.'
- (b) Stolnjak je sav *u* mrljama.
'There are spots all over the tablecloth.'

In expressions representing this schema, the syntactic converse of *u* + LOC is *na* + LOC or *po* + LOC:

- (23) Pjege su mu *po/na* cijelom licu.
'There are freckles all over his face.'

The next instance of the Layer schema includes highly conventional expressions; that is, expressions used in everyday situations when one abstracts from concrete spatial relations and topological factors. The functional factors are primary, as in example (24) describing the relation of a girl and the clothes she is wearing:

- (24) Djevojka *u* plavoj haljini.
'A girl in a blue dress.'

The topological relation in prototypical cases of this schema is similar to the basic schema expressed in (20): a person or a body part is a TR enclosed by a LM from at least two sides. Here there is the reverse concept of the figure (TR) and ground (LM): The LM is the smaller element and its mobility is highlighted. If the TR and the LM switch their roles, the coding of the situation employs the construction *na* + LOC:

- (25) Plava haljina *na* djevojci.

‘A blue dress on a girl.’

2.6. Image schema involving a LM as a substance or material

If the LM is a substance (a liquid or gas), the TR is an object surrounded by the LM entirely or to a significant degree:

- (26a) Avion je *u* zraku.
‘The airplane is in the air.’
- (b) Riba je *u* vodi.
‘The fish is in the water.’

Similar expressions do not provide any information about the conceptual borders of the amorphous substance. If the substance is categorized as a solid material, then this is an instance of the central schema, in which the LM determines the position of the TR:

- (27) Metal *u* zidu.
‘Metal in the wall.’

Instances of the same main schema with the LM as a substance are found in examples with the TR as relational object. In this case, the TR is not a separate object, but a part of the LM that differs (in form or shape) from the rest of the LM seen as a whole. The TR emerges as a kind of natural change of the LM’s shape:

- (28a) Rupa *u* zemlji.
‘A hole in the ground.’
- (b) Procijep *u* kamenu.
‘A perforation in a stone.’

In an instantiation of this schema with the TR as a substance, the TR and the LM are categorized as amorphous objects lacking borders:

- (29a) Med *u* mlijeku.
‘Honey in milk.’
- (b) Šećer *u* kavi.
‘Sugar in coffee.’

In similar examples, the spatial extension of the TR is identical to the space occupied by the LM. The combination of the two substances may allow identifica-

tion of the TR's position. However, in typical cases that imply blending of the two substances, it is not possible to view the LM and the TR as two separate substances occupying two different spatial positions.

In the instances of this schema with the LM denoting a group of objects (typically expressed by a collective noun; e.g., *cvijeće* 'flowers', *granje* 'tree branches'), the TR's position is inside one fragment of the space designated by the LM noun phrase:

- (30) *Lopta je u travi.*
'The ball is in the grass.'

If the TR is a plural noun denoting a group of objects, those objects are distributed in relation to the individual objects denoted by the plural or collective noun serving as the LM.

Some phenomena, such as darkness or fog, are similar to substances to some extent. Conceptualized as amorphous spatial entities without clear borders, they are nonetheless containers that one can enter and leave:

- (31) *Voziti u mraku/magli.*
'To drive in the darkness/fog.'

2.7. Image schema involving a TR as a part of a LM

In the next subschema, the TR is a part of the LM, with the LM being a man-made, larger, and more prominent object, and the TR being its smaller part:

- (32a) *Ladica u stolu.*
'A drawer in the table.'
(b) *Krov u skladištu.*
'The roof of the storage area.'
(c) *Vrata u dnevnoj sobi.*
'The door to the living room.'

In the last two examples, the preposition *na* can also be used. The interchangeability of *na* and *u* is a characteristic of many examples belonging to this subschema. The difference between constructions with *na* and prepositionless genitive phrases (e.g., *vrata dnevne sobe* 'the door of the living room') on the one hand, and constructions with *u* on the other, is not clear-cut. However, it can be claimed that, with *u* + LOC, the highlighted information in the utterance is that

the TR is topologically in the interior of the LM. The border dividing the exterior and interior is often only a conceptual one. If the observer concentrates on the fact that a part of the TR is supported by the LM or that the TR adjoins the surface of the LM, *na* + LOC will be used instead. This also applies to situations in which the TR is attached to the LM.

In one instance of this schema, the TR is a substance and the LM is an inherently or contextually relational spatial phenomenon:

- (33a) Mlijeko *u* prahu.
'Powdered/dry milk.'
- (b) Kvasac *u* granulama.
'Granulated yeast.'
- (c) Šećer *u* kocki.
'Sugar cubes.'

From the topological and perceptual point of view, both objects in this schema occupy the same location in physical reality. They are related to the same element of extra-linguistic reality. The nouns serving as LMs provide spatial information about the TR's attributes: its texture, shape, quantity, specific spatial appearance, connectedness with a container of a particular shape, and so on. These types of nouns can be considered classifiers (Bednarek 1994).

The next subschema entails the TR as a group of objects and the LM as a spatial phenomenon, inherently or contextually relational:

- (34a) Ljudi stoje *u* redovima.
'The people are standing in lines.'
- (b) Lonci se prodaju *u* kompletima.
'The pots are sold in sets.'

In a conceptual reversal of the last schema, the TR is an artifact, the result of an intellectual or manual activity:

- (35) Kip *u* kamenu.
'A stone statue/statue made of stone.'

In this schema, which is based on a conventional metaphor, the material from which an object is made is represented as the container the object went into. The

basis of similar expressions is a SUBSTANCE-AS-GOING-INTO OBJECT metaphor, according to which a material transforms itself into a statue. As for the topological aspect of the schema, both elements involved in the image, the TR and the LM, occupy the same location.

In the next subschema, the LM and its physical forces affects the TR, thus determining the TR's position:

- (36) *Cigareta u ustima.*
'A cigarette between the lips.'

The exact position of the TR in the interior of the LM is secondary. The preposition *u* is not the best choice for describing the exact physical location of the TR and the LM in the last example: *(iz)među* 'between' much better denotes the locational aspect. However, the relation of the physical forces in (36) is primary, thus allowing for *u*. The TR is influenced by the forces connected with two different parts/sides of the LM. Parts of the human/animal body are typical LMs in this subschema (e.g., *u zubima* 'between the teeth', *u rukama* 'in the hands').

2.8. Geographical relations and related cases of (ir)regular inter-language and intra-language variation

The relations considered so far have been spatial relations directly perceptible from the point of view of an observer. As observed, the nature and functional features of the relation of the TR and the LM are decisive factors when defining and contrasting various senses of *u*-locatives. This section discusses topographical and geographical relations in which the notion of perceptibility does not have the same meaning as in the examples already analyzed. In the case of geographical relations, prepositional coding is not connected with the easily perceived physical characteristics of LMs. Bowls and houses are differently accessible to human perception, and thus conceptualization, than are countries and continents. The linguistic coding of geographical relations involves a higher level of abstraction resulting in an idealized—and thus more conventionalized or “arbitrary”—geometric image.

In idealized geometric images representing topographical and geographical relations, two views coexist: a stereometric and a planimetric view. The first denotes the art of measuring and computing the cubical contents of bodies and figures, and the second the mensuration of plane surfaces. The stereometric view enforces the conceptualization of the LM as a three-dimensional or a two-dimensional container with a bounded interior. This conceptualization results in

an *u* + LOC construction. The planimetric view implies the conceptualization of the LM as a platform resulting in a *na* + locative construction. The choice of a concrete preposition is explainable in terms of two different modes of conceptualization. Moreover, the choice of a particular preposition with a concrete geographical name in Slavic has its roots in the history of the language and language-specific conventions. Consequently, geographical names apparently belonging to the same category can be used with two different prepositions within a single language. In many cases, deep-rooted language conventions are much more influential with regard to the prepositional coding of a geographical relation than concrete spatio-geometric characteristics of the relation of the TR and the LM, even if these conventions contrast with the general rules or logic of prepositional usage.

The relations of features (figures) to areal or polygonal reference (ground) regions is expressed by the preposition *u* and its equivalents in some situations, but by *na* in other situations: *Stajao sam u dvorištu kuće na svom posjedu u Slavoniji*. 'I was standing in my backyard on my property in Slavonia.' Each ground object has a surface, and each has boundaries. Thus both *u* 'in' and *na* 'on' seem to be valid in each case. Nevertheless, most ground objects do not give the speaker a choice, but instead require one preposition or the other. The choice of preposition depends on the image schema adopted. In some cases, the Platform schema is adopted. Once this schema is activated, the preposition *na* is obligatory. In other cases, the Container schema is invoked, forcing the speaker to use *u*. The question that arises is: "Which image schemata are activated for which kinds of ground objects and used in which circumstances?"

In the conceptualization of geographical locations in the Slavic languages, the prepositions *na* and *u* (or their equivalents) co-occur, forming a binary system distinctive for each language. Although it is possible to identify a common general distribution system for *na* and *u*, there are many differences with regard to details within one general structure that seems to be similar. The author has discussed prepositional coding with the preposition *na* in Slavic elsewhere (Šarić 2003). Here the focus is mainly on geographical names with *u*-locatives.

In Croatian, the stereometric view prevails with geographical LMs. Continents and states as political units are seen as containers: *u Europi/Aziji/Africi* 'in Europe, Asia, Africa'; *u Hrvatskoj, Turskoj, Poljskoj, Ukrajini* 'in Croatia/Turkey/Poland/Ukraine'. The same applies to regions that are administratively either independent or dependent units (*u Hercegovini/Dalmaciji/ Bavarskoj* 'in 'Herzegovina/Dalmatia/Bavaria'). There are some exceptions to this general rule: e.g., *na Kosovu* 'in Kosovo', for which the conceptualization follows this particular name's etymological connection to *Kosovo polje* 'Kosovo

Basin' (literally, 'field'). This contains the common noun *polje* 'field', which combines with *na* (e.g., *na polju* 'in the field') in its most common usages.

Various factors influence prepositional coding with a specific category of geographical names in Slavic. The conventionalized usage that has emerged in the history of the language plays a significant role. Przybylska's classification of geographical names in Polish (2002: 224f) in Polish with respect to the distribution of *w/na* suggests that the distinction between central and peripheral parts of a region plays an important role. Regions that are seen as central or organized around a center are coded with *w* (*we Francji* 'in France', *w Europie* 'in Europe'). In contrast, *na* with geographical names exhibits a strong preference for occurrence with peripheral parts of Poland or regions that are historically seen as peripheral in relation to Poland, as well as with the regions that are not seen as independent regions with a clear centre (*na Ukrainie/Białorusi* 'in Ukraine/Belarus'). However, some names occurring with *w* and *na* (*na Litwie/w Litwie* 'in Lithuania', *na Słowacji/w Słowacji* 'in Slovakia') indicate the relativity of the general distinction rule.

As a rule, inhabited places (towns, villages) in Croatian are prepositionally coded with *u* (*u Zagrebu/Rastušju* 'in Zagreb/Rastušje'), thus following the prepositional coding of the common nouns for a town (*u gradu* 'in the town') and a village (*u selu* 'in the village'). However, the expression *na selu* is common as well. There is a subtle distinction between *na selu* and *u selu*: the first does not imply a concrete image of an inhabited place capable of containing houses and other objects. If the name of a village is used, it will be coded with *u*: *u (selu) Mikanovcima* 'in the village of Mikanovci'. *Na selu* implies an abstract image of any village. It is used in contexts implying no particular village – *Nedjeljom sam na selu* 'I spend Sundays in the country(side)' – in which the highlighted element is clearly not a concrete location. The same criterion differentiates *na wsi* 'in the country(side)' and *we wsi* 'in the village' in Polish. However, a similar contrast can be observed with the prepositions used with the noun *miasto* 'town' in Polish. Przybylska indicates that *na mieście* 'in the town' implies conceptualization of an open, external region that contrasts with its parts seen as containers (e.g., houses and streets). In Croatian, the usage *na gradu* is not realized.

The situation is less clear with the parts of towns in Croatian. With some town parts and suburbs, *na* is common, whereas *u* is common with others. Here are some examples of the prepositional coding of the parts of Zagreb: *na Tuškancu/Trešnjevci/Črnomercu/Borongaju/Žitnjaku*; *u Dubravi/Malešnici/Španskom*. *Na Gornjem gradu* 'in the Upper Town' contrasts with *u gradu* 'in the town'. It is influenced by the location and etymology of *Gornji grad* that has been con-

ceptualized as situated higher than its surroundings (cf. *Donji grad* ‘lower town’). In some cases, the choice of *u* can be explained with the help of the etymology of the name. For instance, *dubrava* means ‘forest’ and is regularly conceptualized as a container in Croatian, and thus coded with *u*. Therefore, the coding of the part of town called *Dubrava* with *u* (*u Dubravi*) is an etymologically motivated solution. However, an explanation connected with the etymology of a word cannot be found in all cases.

Regarding Polish, Przybylska (2002) relates the historical independence of some parts of the towns to the use of *w*-locatives. She links prepositional phrases with *na* to the peripheral parts of the towns, but nevertheless comes to the conclusion that the distinction peripheral-central is not productive in the modern language. Przybylska also relates the use of *w* to the existence of borders and a well-defined form. In contrast, *na* is related to the non-existence of clear borders, or with an amorphous form of an object as seen from the speaker’s perspective. For Croatian, the distinction center-periphery does not shed much light on the (ir)regularities of *u/na* distribution. The distribution depends on a number of factors, and the same factors are not relevant for every name—thus causing apparent irregularities in prepositional usage. Also, one name may employ different conceptualizations.

One illustrative example is islands in Slavic, which generally evokes the Platform image schema—that is, the preposition *na* (cf. Croatian *na otoku/poloutoku* ‘on an island/peninsula’). However, this is more complicated in the case of islands that are states or continents. Australia is an island and a continent. In Croatian, there are only occurrences of *u Australiji* ‘in Australia’. This is an instance of a common conceptualization of states and continents, not islands. The non-existence of occurrences of *na Australiji* might be influenced by the fact that Australia is not seen as a typical island because of its size, its distance from a particular regional point of view, and so on. Although *Istra* ‘Istria’ and *Balkan* ‘the Balkans’ are peninsulas, in Croatian *Istra* is always coded with *u* (*u Istri* ‘in Istria’) following the general rule for geographical regions (cf. *u Zagorju/Slavoniji* ‘in Zagorje/Slavonia’), whereas *Balkan* follows the general rule for peninsulas (*na Balkanu* ‘in the Balkans’). However, if the word *poluotok* ‘peninsula’ appears in the name, this requires the speaker to say *na*.

When the geographical name of an island is also the name of a state, there are theoretically two possibilities: either it is conceptualized as a prototypical island or a prototypical state. Consequently, the name involves either the Platform image schema or the Container image schema, which result in prepositional coding with *na* and *u*, respectively. Language corpora for Croatian demonstrate both coding possibilities. It can be observed that occurrences with *na* generally pre-

vail. However, occurrences with *u* can be found as well. This is the case with the following names: *Kuba* ‘Cuba’, *Island* ‘Iceland’, *Malta* ‘Malta’, *Cipar* ‘Cyprus’, *Cejlon* ‘Sri Lanka’. *Na Kubi* ‘on Cuba’ leads to the “Island-of-Cuba” interpretation, and *u Kubi* ‘in Cuba’ to the “State-of-Cuba” interpretation. The use of *u* or *na* forces either the Container or Platform schema, respectively, thus reducing ambiguity.

The next group of geographical names exhibiting ambiguities in prepositional coding is names of mountains. This is related to the variation of *u* and *na* in prepositional coding with the common nouns *planina* ‘mountain’, *brdo* ‘hill’ as LMs. In an abstract geometrical image, a hill/mountain is a container-like three-dimensional object with horizontal and vertical extension consisting of an interior and surface planes. The choice of preposition depends on sentential context, especially on the verbal semantics. It is strongly related to the activity denoted by the verb. A mountain or a hill may be seen as an object capable of containing and enclosing other objects, thus imposing a container interpretation. In some situations, the state or activity denoted by the verb also enforces containment relations, such as in the following example:

- (37) *Izgubio se u planini. Zalutao je u brdima.*
‘He got lost in the mountain/hills.’

This example highlights the container-characteristics of the LMs *planina* and *brda*. Being containers, they cause the trajectors to be hidden in their interior, thus not visible to a potential conceptualizator. Quite the opposite is seen with expressions of the following type, in which the conceptualization of the LM as a surface highlights its vertical extension; thus a platform where objects can clearly be seen:

- (38) *Popeo se na planinu/brdo.*
‘He climbed on the mountain/hill.’

Size as an additional factor is very important: the smaller the hill, the less plausible is the possibility of seeing it as a container, and thus coding it with *u* (**u malom brdu* ‘in a small hill’). The bigger the hill, the more plausible is the possibility of seeing it as a container.

A significant frequency of *na*-locatives with occasional occurrences of *u*-locatives is typical for prepositional coding of mountains in Croatian.⁴ A proto-

⁴ A Google search for *u Velebitu/na Velebitu* resulted in 44,000 hits for *na Velebitu* and 988 for *u Velebitu*. The search for *na Biokovu/u Biokovu* resulted in around 13,000 for *na Biokovu* and 87 for *u Biokovu*.

typical example of *u*-locatives is *potres s epicentrom u Biokovu* ‘earthquake with an epicenter at Biokovo’, where the action took place in the interior of the mountain.

With the names of mountain chains, the preposition *u* is common (*odmor u Alpama* ‘holiday in the Alps’, *veličanstvena priroda u Alpama* ‘wonderful nature in the Alps’). However, about 5% of all occurrences contain *na*: *vrh na Alpama* ‘the top of the Alps’, *sve manje snijega na Alpama* ‘increasingly less snow in the Alps’.⁵ Also, *u Tatrama* ‘in the Tatras’ prevails significantly, with some occurrences of *na Tatrama*. Although there are some occurrences of *u Himalaji, na Himalaji* ‘in the Himalayas’ notably prevails. In the case of certain other names, reverse frequency relations can be observed: *na Pirinejima* significantly prevails, whereas *u Pirinejima* ‘in the Pyrenees’ only sporadically occurs.

In Polish, the preposition *w* is rather consistently used with the names of mountains that are *pluralia tantum* (*w Himalajach/Alpach* ‘in the Himalayas/Alps’), although single uses with *na* can be found as well. The prepositional coding of some *pluralia tantum* in Croatian (*Alpe, Tatre*) follows the same pattern, but not consistently (*Pirineji*).

When conceptualizing the names of oceans and seas with *na*, it is not their container properties that are important, but the fact that they are seen as a line or surface with other objects being located in relation to them. *Na Sredozemnom moru* ‘at the Mediterranean Sea’ indicates the coincidence of the points/lines named: *Sredozemno more* and located objects.

Although meadows, fields, cemeteries, airports, and stations (bus stations, railway stations, etc.) are conceptualized as surfaces and thus require the preposition *na* in Croatian, as well as in principle in Polish and Russian, some exceptions can be found. *Na* combines with *livada* ‘meadow’, *polje* ‘field’, *groblje* ‘cemetery’, *aerodrom* ‘airport’, *stanica* ‘station’, and *kolodvor* ‘railway station’. However, in contrast with other names of apparently the same category, *pustinja* ‘desert’ and *prerija* ‘prairie’ are conceptualized as spatial entities capable of including and enclosing: they combine with *u* in Croatian, whereas the Polish prepositional usage *na pustyni/prerii* ‘in the desert/prairie’ clearly relates the two objects involved to the category of objects conceptualized as surfaces that are coded with *na* (e.g., *na łace/lotnisku/cmentarzu/stacji* ‘in the meadow, at the airport/cemetery/station’).

⁵ The statistical information is based on a Google search.

Spatial objects discussed here do not have the same spatial properties: some are horizontal open surfaces not containing other objects prototypically capable of enclosure (e.g., meadows and fields). Other possess a horizontal open surface that constitutes their most important part and/or represent the major function of the entire object (e.g., a runway at the airport). The first group of landmarks, such as *polje* ‘field’, may contain an object capable of enclosing or partly hiding a TR. If the speaker concentrates on those characteristics of the LM, the possibility of *u* will increase:

- (39) Spava *u* polju (u visokoj travi).
‘He is sleeping in the field (in the high grass).’

The same applies to Polish and Russian (*na/w polu; na/v pole*). The second group of objects, such as railway stations, prototypically contain additional objects capable of containment and enclosure; that is, they consist of an open (main) part and a closed secondary part or parts supporting the function of the open (main) part. This empirical fact explains the possibility of combining some LMs with *na* and *u*. If the fact that there are some enclosed objects at a location is an important part of the image, or if that fact is the highlighted information in a speech situation, the LM will be combined with *u*. In such a situation, the boundaries of a LM are highlighted as well as its shape and the entire surroundings that enable the enclosure of the objects causing them to be seen as (at least partly) enclosed entities. On the other hand, if the surface is important, or if the position of the TR is concentrated/bounded to the surface, *na* will be used, forcing the Platform image schema. In (40a), the street is seen as a horizontal surface. The functional properties of the street as a surface enable the children’s activity. In (40b), the stress lies on the three-dimensional objects existing along the horizontal line named *ulica* ‘street’ and their vertical extension. The meaning of *ulica* actually applies more to the objects (houses) located at both its sides than to the horizontal surface where cars can drive or children play:

- (40a) Djeca se igraju *na* ulici.
‘The children are playing in the street.’ (literally, ‘on the street’)
(b) Stanujem *u* mirnoj ulici.
‘I live on a quiet street.’ (literally, ‘in a quiet street’)

The same semantic factors are responsible for the contrast between *na rynku* and *w rynku* ‘on the square’ in Polish. However, due to language conventionalization, in Croatian only *na trgu* appears, in which the image of an open location is highlighted.

In addition, if the speaker concentrates on the borders of a horizontal surface, the possibility of *u* will increase:

- (41a) Igraj se *u* dvorištu, a ne *na* ulici!
‘Play in the front yard, not on the street.’
- (b) Hajde se malo igrati *na* dvorište!
‘Go and play in the front yard.’

In (41a), the speaker concentrates on the strict borders of the yard. In (41b), the shape or the borders of the yard are not important, but the fact that the listener should leave a (closed) space (e.g., the house) and play outside the house. In similar examples, the meaning component ‘not here’ interferes with other semantic factors causing the choice of *na*. The same factors connected with the highlighted properties of the LM and the speaker's intention determine the choice between Polish *na podwórzu* and *u podwórzu* ‘in the front yard’.

One instance of the contrast of *na* and *u* is related to buildings/houses and their parts. Buildings and houses are conceptualized as containers. That can also be claimed of their consisting parts that have the primary role of being inhabited, such as rooms (*u zgradi/kući/sobi* ‘in the building/house/room’), whose prototypical shape includes four walls and a roof/ceiling. However, some parts of buildings are different with respect to their shape and function, and hence are coded with the preposition *na*. The reasons for different prepositional coding can be found in the different structure or function of those parts: they either lack a roof (*na balkonu* ‘on the balcony’), or are open and/or seen as metaphorically open because they do not provide a private area (*na stepenicama* ‘on the stairs’) as do main parts (e.g., rooms). Furthermore, their position may be exceptional: for example, the attic (*tavan*) is the uppermost part of the house's interior. In addition, its prototypical/traditional shape is different from that of a room or a floor containing single rooms or apartments. Although it may contain walls or compartments, it is still seen as an open surface in Croatian (*na tavanu* ‘in the attic’). This might be related not only to its physical shape, but to its function as a common space as well. Contrary to Przybylska, who relates the prepositional coding with *na* in Polish to the peripheral parts of the buildings (*na werandzie/poddaszu* ‘on the veranda/in the loft’), it seems more plausible to relate Croatian *na* in *na balkonu/tavanu* ‘on the balcony/in the attic’ to one of the factors cited, or to an interplay of several factors, including shape, openness, and function. *Podrum* and *potkrovlje* are peripheral building parts, but are still coded with *u* (*u podrumu/potkrovlju* ‘in the cellar/loft’). However, the “innermost” position of the cellar in comparison to the other parts of a house is certainly a reason that enforces the use of *u*. The prototypical function of *potkrovlje* as a build-

ing part is to be inhabited by people. Although it may designate exactly the same location designated by *tavan* (the uppermost part of the building directly under the roof), *potkrovlje* signalizes a space intended/designed as a place to live, and not for storing things, for example. The purpose of some parts of a building is more important for motivating a concrete prepositional usage than its centrality or peripheral position. Some parts are not construed with the purpose of enclosing objects and people, and hence not providing a prototypical place to live or a private sphere.

The following semantic factors influence *u* + locative in the spatial domain:

- a) Topological: The TR is in the interior of the LM. The LM has a container-like interior. It can contain substances or might be enclosed by other objects that define its border.
- b) Physical forces: The LM determines the TR's location.
- c) Perception: The TR is (partly) covered or not (entirely) visible.
- d) Function: The LM is functionally seen as the container of the TR; it has the form of a package or covering.

2.9. Image schemas with temporal locative LMs

The basis of the metaphorical extensions of *u* from the spatial into the temporal domain are the following analogies:

- The TR is an object with spatial extension → The TR is an object with temporal extension (activity, state, event).
- The LM is an object with spatial extension → The LM is a temporal unit.

The relation *TR u LM* in the spatial domain localizes the TR in particular spatial surroundings, whereas the relation *TR u LM* in the temporal domain localizes the TR in time. Time appears in a geometrical schema in the form of a quasi-spatial, one-dimensional, and one-directional object: as a line. LMs with *u*-locatives are conventional time intervals: day and night (*u tom danu, u toj noći* 'on (that)day/night'), months (*u siječnju* 'in January'), years (*u (toj) godini* 'in (that) year'), centuries (*u (tom) stoljeću* 'in (that)century'), and decades (*u (tom) desetljeću* 'in (that) decade'). Seasons (coded with *w*-locatives in Polish) are usually coded with *u*-accusatives in Croatian (*u proljeće/jesen/zimu/ljeto* 'in the

spring/autumn/winter/summer’).⁶ With complex expressions, a temporal genitive is usual (*te zime* ‘in/during that winter’).

Temporal LMs can be expressed indirectly as well: with a noun denoting a particular phase in a person’s life (*u djetinjstvu/mladosti/starosti* ‘in childhood/youth/old age’). In the temporal uses of *u*-locatives, the TR occupies a temporal location in the LM. It is situated somewhere on the temporal line between its beginning and the end. The TR and the LM are coincident in the temporal domain.

Some temporal *u*-locatives tend to undergo a grammaticalization process: *u času/trenutku* + genitive ‘in the moment of ...’, *u vremenu* + genitive ‘in the time of ...’ (with *nomina actionis*).

2.10. Non-spatial meanings of locative LMs

The conceptual image of the container in the spatial domain gives rise to a number of metaphorical extensions into domains other than spatial. Some of these are motivated by common conventional metaphors and are shared by the Slavic languages. This section provides a systematization of non-spatial meanings that are directly related to spatial via conventional metaphors. The coding of these relations with *u* or its equivalent is common in Slavic.

1. SOCIAL GROUPS ARE CONTAINERS: *pjevati u zboru* ‘to sing in a choir’; *biti aktivan u klubu/crkvi* ‘to be active in a club/church’. A person (TR) is a part of a group (LM) performing an activity. The frequency of this metaphor is based on pragmatic factors. Nouns of the type *škola* ‘school’, *crkva* ‘church’, and *banka* ‘bank’ denote concrete spatial entities: buildings, conceptualized as three-dimensional containers in their prototypical meaning. However, via metonymy those nouns also denote the groups that are included or affiliated with the respective institutions. In many cases, the use of the noun is ambiguous regarding what is meant: the building or the group performing an activity.

2. PHYSICAL STATES, EMOTIONS, AND THOUGHTS ARE CONTAINERS FOR THE PERSONS AFFECTED BY THEM: *živjeti u samoći* ‘to live in loneliness’, *patiti u bolovima* ‘to suffer in pain’ *reći (što) u bijesu* ‘to say in anger’. The TR is a person and the LM a psychological or emotional state. This model of conventional conceptualization is common only with some physical states. It is often possible

⁶ More observations about *u*-locatives can be found in the section discussing temporal *u*-accusatives.

to describe these with the phrases “obuzima/spopada koga x” with the *u*-locative as a result: *biti u x* (*obuzima/spopada ga bijes* ‘anger is overcoming him’ → *rekao je u bijesu* ‘he said (it) in anger’, *spopada ga tuga* ‘sadness is overcoming him’ → *upao je u tugu* ‘he is overcome with sadness’). The basis of this conceptualization is the conventional metaphor STATES OF MIND/PHYSICAL STATES ARE LOCATIONS (Grady 1999: 298).

3. THE HUMAN BODY OR ITS PARTS ARE CONTAINERS FOR EMOTIONS, THOUGHTS, PHYSICAL STATES, VITAL FORCES, AND CHARACTER: *budi se u njima volja za životom* ‘the will to live is awakening in them’, *u dubini srca je bio sretan* ‘he was happy deep in his heart’, *u glavi mu se vrte misli* ‘thoughts are whirling in his head’, *bol u duši* ‘suffering in the soul’. The TR is a mental state, emotion, or thought with the LM as a person, person’s body, or body part. The roots of this metaphor are a naïve understanding of human beings’ bodily functions: the head is seen as a location and the container of the thoughts, imagination, memories, and all activities connected with the brain (the head being a real container of the brain as a physical object). The heart and soul are seen as containers for emotions.

4. THINKING PROCESSES AND THEIR RESULTS ARE CONTAINERS FOR PEOPLES’ MENTAL ACTIVITIES: *u mašti je već bio daleko* ‘he was already far away in his imagination’, *u mislima je prevrtao razne mogućnosti* ‘various possibilities went through his head’.

5. STATES OF AFFAIRS ARE CONTAINERS FOR SITUATIONS AND EVENTS: *išli su u tišini* ‘they were walking in silence’ *radili su u žurbi* ‘they were working in hurry’.

6. ACTIVITIES AND PROCESSES ARE CONTAINERS FOR OTHER ACTIVITIES AND PROCESSES; ACHIEVEMENTS OF HUMAN ACTIVITY ARE CONTAINERS FOR STATES OF AFFAIRS AND ACTIVITIES: *pobjeda u nadmetanju* ‘victory in a competition’, *napredak u znanosti* ‘progress in research’, *problemi u politici* ‘problems in politics’.

7. LANGUAGE UNITS ARE CONTAINERS FOR MEANINGS AND IDEAS; TEXTS AND WRITTEN MEDIA CONTAINING TEXTS ARE CONTAINERS OF INFORMATION: *u njegovim riječima ima sarkazma* ‘there is sarcasm in his words’, *to stoji u novinama* ‘it is written in the newspapers’.

Here there emerges an interesting inter-language variation. In Polish, it is possible to code information media other than books/newspapers with *w* (*w radiu/komputerze* ‘at the radio/computer’). In Croatian, with the noun *računalo*

'computer', the focus of the conceptualization is on one part of the object, the screen, as the surface that "presents" information, thus requiring the *na*-locative (*tekst na računalu/kompjutoru* 'text on a computer'). In *u računalu/kompjutoru*, the capability of the computer to "contain" something is emphasized.⁷ In *na radiju* 'on the radio' it is not the capability of the radio to "contain" information that is highlighted. *Na* conveys more abstract information than *u* would, implying the coincidence of the media and contents transmitted.

Finally, there are contexts in which TRs represent an activity and LMs something that marks the borders of the activity, as in *uživati u francuskoj kuhinji* 'to enjoy French cuisine'. In similar examples, *u*-locatives are required by the meaning of the verb (*specijalizirati se u čemu* 'to specialize in').

3. Directional contexts involving the construction *u* + accusative case

3.1. General remarks

In Croatian, directional meaning is sometimes overtly encoded by a specialized preposition, such as *k(a)*, *prema* 'to, towards'. However, the same meaning can be expressed by a non-specialized preposition, such as *u*, which is also used to mark static locations, typically expressed by locative constructions entailing *u*. A prepositional phrase entailing *u* as a whole acquires goal interpretation on the basis of case-assignment and the verb used in the construction. This implies that the directional meaning in sentences with *u* has to be inferred from the broader context because the preposition itself is underspecified with respect to the role of its locative argument (goal or static location). The following sentences demonstrate that more than one sentential element – that is, constructional meaning – contributes to the directional interpretation: contrary to (42a), sentence (42b) entails a verb of motion, and case-marking of the LM is different in (42a) and (42b):

- (42a) Sjedi *u* sobi.
'He is sitting in the room.'
- (b) Ušao je *u* sobu.
'He entered the room.'

Does this imply that the semantic contribution of the preposition as such is redundant in some way? A certain semantic redundancy concerning prepositional phrases in Slavic languages that have overt morphological case-marking can be

⁷ The occurrences of *na/v komp'jutere* in Russian reflect the same distinction.

claimed. However, prepositions contribute to the meaning of prepositional phrases as a whole: the *u* in *u*-accusatives certainly has the role of defining the structure and shape of the object that is the goal of the movement implied in the construction. Specifically, *u*-accusatives do not have the same distribution rules as *k(a)*-datives, *prema*-datives, or directional prepositionless datives.

The accusative LM in an *u* + accusative construction is the endpoint, or goal, of the TR's motion or action. The image schema included in an *u* + accusative construction depends on how the entire sentence is construed, including the scope of the action and the resolution at which the LM is viewed. In the following sentences, different information with respect to the action of walking is asserted:

- (43a) Marko je išao *u* kafić_{ACC}.
'Marko went to a café.'
- (b) Marko je ušao *u* kafić_{ACC}.
'Marko entered a café.'

In the first sentence, the entire café serves as the endpoint or goal of the trajectory, whereas it is some more specific point in the interior of the café that plays this role in the second sentence. Inferences about the action's starting point also exhibit a subtle difference in focus. The first sentence suggests a source location away from the café and the second merely requires that the source be some point exterior to the café. Different interpretations do not depend on *u*-accusatives only, but on the semantics of the verb used.

Different inferences are connected with the various image-schematic contributions of the interaction of the preposition used with other sentence elements. In their central usages, *u*-locatives evoke the Container image schema, whereas *u*-accusatives evoke both the Container and the Source-Path-Goal (SPG) image schemas. The schemas may be differently highlighted in different constructions. In the first sentence, the Source-Path schema is highlighted through the verbal semantics. In the second sentence, the Container image schema is more highlighted. The SPG's TR can be bound to either clause's subject or its object; compare example (43b) *Marko je ušao u kafić* with *Marko je ugurao Ivana u kafić* 'Marko pushed Ivan into the café.' Numerous verbs behave fairly consistently with respect to the binding between the TR-role of the SPG and the grammatical subject or object. However, many allow both possibilities. The choice of binding thus depends on the interaction between the verb and the larger clausal construction in which it appears. The consequence is that clausal constructions may also have image-schematic content that must cohere with that

of their constituent parts. Directed-motion constructions, such as the two constructions above, use the SPG schema. Their meaning constraints specify how their constituents fit together. Much of the semantic content of the motion event denoted by the clause derives from that of its motion constituent, which is mainly bound to the verb *ući* in the first example. The SPG of the overall construction is bound to the SPG of the direction constituent, and the TR to the mover constituent (*Marko*).

The central meaning of the construction TR *u* LM_{ACC} implies that the TR changes its location moving along a path towards a goal; that is, the LM expressed by *u* + accusative. In an ideal instance, the TR moves towards the LM's interior. The preposition *u* and other accusative prepositions evoke the Path-Goal schema. Therefore, contexts with *u*-accusatives involve verbs of motion implying the possibility of the TR to relocate. The TR of the spatial relation expressed by this construction is denoted by different syntactic structures:

- The TR is a sentence subject with an intransitive verb: *Marija je ušla u kuću* 'Marija entered the house'.
- The TR is a sentence object with a transitive verb: *Marko je zabio čavao u zid* 'Marko pounded the nail into the wall.'
- The TR is an instrumental complement: *Marko je udario nogom u stol* 'Marko hit the table with his leg.'

The LM can be an inanimate object (as in the last example), a body part of an animate object (*Marko je udario Ivana u nogu* 'Marko hit Ivan in the leg'), or a part of the subject's body in constructions with reflexive verbs (*Marko se udario u nogu* 'Marko hit himself in the leg').

In some contexts, especially with placement verbs, there is the possibility of locative coding of the situation, as well as accusative coding. This is discussed elsewhere (Šarić 2006, in press). In general, accusative LMs with *u* imply that an object was previously at another location and that it moved along a PATH. In doing so, it changed its location. The pattern *u* + locative neutralizes the information about the TR's change of location.

3.2. The central schema and its re-formulations

The central schema for *u* + ACC has clear equivalents in the central instances of locative usages. This is also case with all the image schemas in Croatian discussed in 2.1–2.8. The accusative construction entails a verb of motion. A TR can be an object or a person that moves in the direction of an LM that is a con-

tainer or a container-like object. In an ideal case, the container has a defined interior that is intended to be the final destination of the TR. The semantics of the preposition *u* interplay with the semantics of the accusative case: the first indicates a location in a container and enclosure, and the second the destination or goal of a movement. Contexts involving *u*-accusatives semantically entail the idea of the TR's relocation. Prototypical verbs involved are motion and placement verbs, such as *ući* 'to enter' and *staviti* 'to place'. The following examples illustrate typical LMs conceptualized as containers, having an almost ideal form (44a), as well as divergences (44b)–(44e):

- (44a) Ivan ulazi *u* kuću.⁸
'Ivan is entering the house.'
- (b) Lopta je upala *u* koš.
'The ball fell into the basket.'
- (c) Vlak je ušao *u* tunel.
'The train entered the tunnel.'
- (d) Djeca ulaze *u* šator.
'The children are entering the tent.'
- (e) Stavio je stolicu *u* kut.
'He put the chair in the corner.'

The following examples with verbs expressing 'take' and 'catch' also show a clear correspondence with the *u* + locative schema:

- (45a) Uzeo je cigarete *u* ruku.

⁸ Constructions within this schema that seem to be very similar exhibit differences. In the following examples, they are related to the final location of the TR with respect to the LM being a container (house), and parts of the house that correspond to the Portal of the container schema evoked by *u*:

- (i) Gost je ušao *u* kuću.
'A guest entered the house.'
- (ii) Dim je ušao *u* kuću.
'The smoke went into the house.'

In (i), the guest's final location is within the interior of the house, whereas in (ii) the smoke may have permeated the entire interior of the house. Similarly, because of our detailed knowledge about how people interact with houses, we can guess that sentence (i) involves a door that people usually use to enter a house. We know that smoke can travel just as easily through windows as through doors, so we are likely to imagine various or multiple portals in (ii).

‘He took the cigarettes in his hand.’

- (b) Ulovio je ribu *u* mrežu.
‘He caught the fish in the net.’

With geographical names in Croatian, *u*-accusatives are directional equivalents of *u* + locatives:

- (46) Idem *u* Varšavu.
‘I am traveling to Warsaw.’

Schema 2) involves two-dimensional objects conceptualized as containers:

- (47) Stavio je sliku *u* zlatni okvir.
‘He put the painting in a golden frame.’

Schema 3) involves a LM being a material that is a layer on the TR's surface. The mobile element in the situation described in (48a) is the LM, not the TR. LMs involved in this schema often denote clothes (example (48b)). Typical verbs used are *zamotati*, *uviti*, *zaviti* ‘to wrap (up), bind, envelop’, *upakirati*, *zapakirati* ‘to pack’.

- (48a) Zamotao je cvijeće *u* celofan.
‘He wrapped the flowers in cellophane.’
- (b) Obukla se *u* crvenu haljinu.
‘She put the red dress on.’

Schema 4) involves a LM conceptualized as a substance. The construction *u* + accusative describes the localization of the TR's path towards the goal; that is, the interior of the LM:

- (49a) Bacio je kamen *u* vodu.
‘He threw the stone into the water.’
- (b) Zabio je glavu *u* jastuk.
‘He pressed his head into the pillow.’
- (c) Uplela je traku *u* kosu.
‘She wove a ribbon into her hair.’

The preposition *u* is used in contexts with prefixed verbs, such as *ugraditi* ‘to build in(to)’, *uplesti* ‘to knit in(to)’, *ušiti* ‘to sew in(to)’, with the general mean-

ing ‘to cause the TR to become part of a bigger unit, the LM’. The LM is a material or substance in examples with verbs with the prefix *za-*: *zablesti (se)* ‘to entangle’, *zakopati (se)* ‘to burrow in(to)’, *zabiti (se)* ‘to crash/run in(to)’. The construction *u* + accusative is not dependent on nominal elements only, but also on verbal semantics. The use of *u* relatively often coincides with the use of verbs prefixed with *u-*. In its spatial sense, this prefix designates a relation of the TR and the LM in which the TR changes its location moving in the direction of the LM. The change of location is followed by crossing a boundary; that is, the TR moves from outside into the interior of the LM, which is a container-like object.

Schema 5) implies that the TR changes its form, with the LM being its new, changed form. This schema is connected with verbs designating change of form or shape, such as *pretvoriti* ‘to change in(to)’, *preobraziti* ‘to transform’ (example (50a)). This schema also includes contexts with TRs as a group of objects and LMs as the TR’s new form, a new unit that arises after the transformation process. The LM is a new spatial form of the TR (example (50b)):

- (50a) Požar je kuću pretvorio *u* pepeo.
‘The house turned to ashes in the fire.’
- (b) Složila je cvjetove *u* buket.
‘She tied the flowers into a bouquet.’

The transformation of the TR changing from one form into another is conceptualized as a mental path that the TR is moving along: from a starting point outside the LM to a final point that is identical with the LM.

Schema 6) involving the accusative with the preposition *u* has no equivalent among the *u* + locative constructions. The TR is an object, instrument, quasi-instrument, or material. The LM is an object, a person, or a part of the agent’s body. Verbs included in the representation of this relation indicate short and intensive contact of the TR and the LM, implying the change of the LM as a result of the contact. *U* + accusative may evoke contact with an obstacle.

- (51a) Udario je rukom *u* stol.
‘He hit his fist against the table.’
- (b) Pas ga je ugrizao *u* ruku.
‘A dog bit his hand.’

In some contexts, the TRs are not overtly expressed. Although the relation implies the direction of the TR’s motion, the observer’s attention is not focused on the direction of the motion, but the point at which the TR realizes contact with

the LM. The prominent dimension of the LM is its surface, with which the TR realizes contact. The contact of the TR and the LM is realized at a very well-defined point. The borders of the LM are crossed (conceptually or in fact) with the TR entering the LM's interior. The LM as a solid material implies resistance to the TR encroaching into its space. Representative contexts for this schema contain verbs of the type *udariti* 'to hit'. The TRs are nominative and instrumental nouns and pronouns (*On je udario u stablo* 'He hit the tree', *Udario je rukom u stablo* 'He hit his hand against the tree').

In some examples, such as those involving the verbs *lupiti*, *tresnuti*, *bubnuti* 'to hit, spank, punch', the acoustic effect might be an important meaning component. Examples involving the verbs *ustrijeliti*, *pogoditi*, *gađati* 'to shoot, aim at' and *poljubiti* 'to kiss' are a part of this schema as well. These verbs imply an action directed towards a goal or destination. The TR is a person or an object, and the LM is an object, a person, or a part of a person's body:

- (52) *Poljubiti u ruku.*
'To kiss somebody's hand.'

In some contexts, it is possible to vary the constructions *u* + accusative and *o* + accusative. The construction with *u* evokes the TR's motion towards the LM as the goal of the motion. The highlighted situational aspect is the TR's intentional contact with the LM. In contrast, the contact realized in the situation coded with *o*-accusatives tends to be interpreted as non-intentional. If the LM of the denoted relation is a part of a human body, only the preposition *u* can be used:

- (53a) *Udario se u glavu (*o glavu).*
'He hit himself in the head'
- (b) *Udario ga je u glavu (*o glavu).*
'He hit him in the head'

In contexts involving body parts and verbs that have a meaning related to *udarati* 'hit', the preposition *po* + locative can be used:

- (54) *Petar ga je udarao po leđima.*
'Petar was hitting him on the back'

The construction *po* + locative conveys either an image of repeated contacts of the TR and the LM, or of repeated contact of the TR with single, irregularly distributed points on the surface of the LM. On the other hand, the *u*-accusative (*Petar ga je udario u leđa* 'Peter hit him on his back') evokes the image of a

single short contact of the TR with a particular, single spot on the LM's surface. Therefore, *po* is used with imperfective verbs describing repeated actions. For the same reason, *po* is quite unusual in contexts with semelfactive verbs that refer to a single, atomic instantiation of the eventuality described (?*Ivan ga je lupnuo po leđima* 'Ivan banged him on the back'). LM's in the constructions *po* + locative do not imply that the contact of the TR and the LM is intense and related to pain.

Regarding *u*-accusatives and the differences between different Slavic languages, it can be expected that languages having a special preposition reserved for directional contexts will employ that preposition. Russian uses *v* in directional contexts, thus applying the same system as Croatian: *položit' bumagi v stol* 'to put the papers in the table', *uexat' v Sibir'* 'to travel to Siberia'; *podat' zajavlenie v universitet* 'to submit a statement to the university'. In Polish, if the LM is a three-dimensional object with an interior and the TR moves towards the interior of the LM, the relation will be expressed with *do* + genitive. Expressions with *w* in contexts with three-dimensional containers are considered archaic (cf. *wejść w dom* 'to enter the house' vs. ...*do domu*), with some exceptions related to objects with a special shape for which both *do* + genitive and *w* + accusative are possible. This is the main difference between Polish on the one hand and Croatian on the other, in which there is a regular correspondence of *u*-locatives and *u*-accusatives. Therefore, *Stavio je kredu u kutiju_{ACC}* 'He put the chalk in the box' is perfectly acceptable in Croatian but unacceptable in Polish (*Włożył kredki *w pudełko*), in which it must be *Włożył kredki do pudełka*. In Polish, there is no regular parallelism of *w*-accusatives and *w*-locatives: the equivalents of prototypical instances of the Container schema entailed in *w*-locatives are coded with *do* in contexts implying change of location (*Janek idzie do domu* 'Janek is going home'). *Do* is the directional counterpart of *w*. Przybylska (2002: 242–268) describes the various semantic factors that underlie the choice between *do*- and *w*-constructions in contexts in which both prepositions are possible. Schemas 2, 3, and 4, discussed in 3.2., also involve the preposition *w* in Polish. Within schema 4, *do* + genitive can be alternatively used with LMs that are liquids or "dispensable" substances. Przybylska claims that schema 4 (cf. example (49b)) is a prototypical schema illustrating the use of *w* + accusative in Polish (*Wcisnął głowę w poduszkę* 'He pressed his head into the pillow'). The equivalents of *w*-locatives with geographical names in Polish are *do* + genitive constructions, with some exceptions.⁹

⁹ Przybylska (2002: 253) refers to the names of mountains that employ *w* + accusative (e.g., *jechać w Tatry* 'to go to the Tatras'), and some names of Polish regions with the suffixes -skie, -ckie.

Summarizing the topological aspects involved in the schemas employing *u* + accusative, it can be observed that the TR involved changes its location, moving from a region outside the LM in a direction to the interior of the LM. The route of the TR's motion is directed towards a point in the interior of the LM. The LM is an inanimate goal of the movement (in contexts with motion verbs) that also includes objects with various spatial extension (prototypical and unusual containers, substances, geographical names, etc). If the LM is a material/substance, the image implies that the TR enters the LM; that is, a factual contact of the TR and the LM at the endpoint of the TR's movement.

If the LM does not have a container-like interior (e.g., *zid* 'wall', *stol* 'table', *stolica* 'chair'), the endpoint or goal of the TR's movement is a point on the surface of the LM. If the LM is a material, the TR can be partly or entirely covered or wrapped with the material; that is, the LM at the endpoint of the movement. If the LM is not a solid substance, the path of the TR can end with penetration of the LM's substance, which is the TR's new location.

Regarding perceptual aspects (i.e., the observer's perspective), in some contexts the TR is at the endpoint of the motion towards a goal either partially hidden by the LM or completely invisible. Concerning physical forces, a TR intending towards the endpoint of the motion has to overcome the forces provided by the LM (substance or a material). Functionally, in many cases the LM is the TR's environment or layer. In other cases, the LM is a material obstacle possibly damaged at the moment of contact with the TR.

3.3. *Accusative LMs as temporal units*

A TR of a temporal relation is a situation, whereas a LM is a temporal unit seen as a one-dimensional object. The temporal meaning of *u*-accusatives is to some extent similar to the temporal meanings of *u* + locatives, in which the TR is a situation or eventuality located within the borders of the LM. Janda (2002) provides an illustrative analysis of convergent and divergent temporal expressions in Slavic languages, stating that temporal expressions constitute one of the most obvious sources of cross-linguistic variation in the use of Slavic cases. An in-depth analysis of Croatian temporal expressions is the topic of another study (Šarić, in preparation). This section reflects on the general semantics of temporal *u*-accusatives only.

Although both *u*-locatives and *u*-accusatives provide a general semantic frame for coding temporal units, some instances of temporal conceptualization are bounded to a particular case construction. One significant category that is re-

served for *u*-accusatives is the names of the days (*u subotu* ‘on Saturday’). This applies not only to Croatian, but to Russian and Polish as well (Pol. *w sobotę*, Russ. *v subbotu*). It is interesting that *w* + locative plural in Polish can be used with the names of the days: (*w piątki*) to indicate repetition, whereas a similar meaning is expressed in Croatian either with an instrumental or with a genitive phrase (*petkom*, *svakog petka* ‘on Fridays’). *U*-accusatives are also used when coding hours when something took place (*u jedan poslijepodne* ‘at one p.m.’). Moving to a destination is the source domain, and taking place in time is the target domain for *u*-accusatives (Janda 2002). The goal of a movement is transformed into a point in time as the temporal “destination” of a process/activity.

U-locatives in the temporal domain (e.g., when used with months: *u siječnju* ‘in January’) involve a straightforward mapping from the spatial domain, where location in space is transferred into location in time. It is common for the Slavic languages to see periods of time as bounded spaces. Polish and Russian also use locative constructions with a containment preposition: Pol. *w listopadzie* ‘in October’, Russ. *v nojabre* ‘in November’. Periods of time denoted with *u*-locatives in Croatian have a broader temporal extension. In general, these units are longer than the units denoted by *u*-accusatives (*u budućnosti/prošlosti* ‘in the past/present’; *u dvadesetom stoljeću* ‘in the twentieth century’, *u osamdesetim godinama* ‘in the eighties’). However, some noun phrases denoting temporal units allow for both possibilities: *u taj čas/trenutak*, *u tom času/trenutku* ‘at that moment’, *u zimsku noć/zimskoj noći* ‘on a winter night’. The idiomatic expression *u zao čas* ‘as ill luck would have it’ only appears with the accusative. The “length” of the temporal unit is not a criterion that can always be applied. With the accusative construction *u taj trenutak*, the temporal unit is seen as a goal/destination of an action. The dynamics of the situation are highlighted.

If the TR is a situation, and the LM a series of temporal units, plural LMs designate repetition of the situation: *Radili su zimi u duge večeri* ‘They worked on the long winter nights’.

The next schema with *u*-accusatives involves contexts describing the duration of something:

- (55) Sve je bilo gotovo *u jedno popodne*.
‘Everything was finished within one afternoon’

The TR is a situation conceptualized as the result of a process/action. The process denoted by a perfective verb was developing at the time. It is finished at the moment when one state of affairs changes into another. The state of affairs in which the task was not solved changes to the state of affairs in which the task is

solved. The LM is the temporal route of the development of a process/activity, whereas the TR is the process/activity itself. The prototypical concept connected with *u*, the localization of the TR in the interior of the LM, is also realized in the examples above. The development route of the process/activity is entirely localized within the borders of the temporal unit expressed by the accusative phrase. Accordingly, *Marko je riješio zadatak u pet minuta* might be paraphrased with: *Markovo rješavanje zadatka bilo je smješteno u vremenu od pet minuta* ‘Marko’s task-solving was located in the time span of five minutes.’ Janda (2002) accurately relates accusative temporal expressions to Slavic aspect, stating that aspect provides events with the contours of objects, enabling them movement on the timeline. Although this topic needs further investigation, it is certain that temporal accusatives convey action dynamics that are lacking with temporal locatives, and that accusative semantics as a whole (conveying an idea of goal/destination) must give rise to temporal accusatives as well.

3.4. Other non-spatial usages

The reciprocity of the *u*-locatives and *u*-accusatives in Croatian applies to the non-spatial domain as well. It implies that the dynamic/directional contexts involving conventional metaphors discussed in 2.10. would involve *u*-accusatives instead of *u*-locatives.

A common usage type involves the TR as a person and the LM as a situation, event, state, process, or activity. The verbs appearing within this usage type denote situations in which a person independently or with help of others becomes a participant in a situation: *uživjeti se (u što)*, *upasti (u što)*, *upustiti se (u što)* with the general meaning ‘to enter into, fall into, enter into the spirit of a thing’. Usage type a) is based on the conventional metaphor EVENTS/STATES/PROCESSES ARE CONTAINERS FOR OTHER EVENTS/STATES/PROCESSES AND THEIR PARTICIPANTS:

- (56) *Upustio se u razgovor s prolaznikom.*
‘He entered into a conversation with a trespasser’

Within this usage type, there are frequent contexts with the TR as a person and the LM as an object of the TR’s thoughts. Verbs appearing in similar contexts are: *zadubiti se (u što)*, *udubiti se (u što)*, *unijeti se (u što)*, *proniknuti (u što)*, *dati se (u što)* with the general meaning ‘to immerse in, concentrate on, devote (yourself) to’. The metaphorical TR is a person performing a mental activity, and the LM is an abstract object, a goal of mental activity:

- (57) Udubio se *u* traženje rješenja problema.
'He concentrated on seeking a solution to the problem'

Usage type b) involves the TR as a person and the LM as a social group. Verbs appearing in this context denote an activity through which a person becomes a part of a social group:

- (58) Ušao je *u* loše društvo.
'He fell into bad company'

The basis of this usage type is the following conventional metaphor: SOCIAL GROUPS ARE CONTAINERS FOR PERSONS/MEMBERS.

Usage type c) involves the TR as a person and the LM as a state or emotion. In this usage type, the metaphorization process is not so much connected with the preposition alone, but with the metaphorical extension of the verbal meaning:

- (59) Upali su *u* nevolju.
'They fell into troubles'

Usage type d) includes verbs of the type *preobraziti se* 'to alter', *pretvoriti se* 'to be transformed' and a conceptualization of the change of form or appearance of an object. It involves the Path schema, and it can form a basis for a conceptual structure of a situation in which any change can be represented. This change can be related to visual appearance or to psychological attitudes:

- (60) Pretvorila se iz skromne djevojke *u* arogantnu osobu.
'She transformed herself from a modest girl into an arrogant person'

Regarding convergences between the Slavic languages, the same models of metaphorical extensions from the spatial domain into non-spatial can be observed. Russian employs the preposition *v* following the same model as Croatian (*vovleč' v rabotu* 'to get involved with work', *vpast' v somnenie* '[to fall into doubts]/to become suspicious', *pogruzitst'sja v glubokoe razdum'e* 'to sink into deep contemplation'). The situation in Polish is much more complicated due to the fact that general directional contexts require *do*-genitives. However, with some semantic groups of verbs *w*-accusatives are usual, especially verbs with the prefix *w-*. Przybylska (2002: 267) discusses the most frequent groups, stating that *w* + accusative is a complement of about 220 verbs in Polish.

The spatial basis of the expressions discussed in this section is obvious. Our understanding of situations, events, states, processes, and activities is clearly related to our understanding of the physical space we move in. It can be expected that related expressions in all Slavic languages in principle involve an equivalent of *u* if they use the same prepositions in directional and locational contexts. Furthermore, English equivalents of the expressions with locational and directional *u* (*in/into*) used in the example glosses show that general rules of metaphorical extensions from the spatial into the non-spatial domain are shared, even in European languages that are not closely related.

4. Instead of a conclusion

The analysis of the accusative and locative usages of the preposition *u* has pointed towards a dependency of case semantics and prepositional semantics that deserves further attention, especially from a comparative perspective. Different steps of the analysis provided here have shown that spatial conceptualization tends to reduce extremely numerous spatial relations based on the shape and configuration of the conceptualized objects to a minimal number of models. The complexity of spatial relations in the real world implies a richness that would cause incomprehensibility. The analysis shows language universals related to the conceptualization of space “at work.” The consideration of examples of prepositional variation (exemplified by *u* and *na* variation) that is observable within one language, as well as in a comparison of related languages, opens interesting questions connected with the (non)systematicity of conceptualization processes and/or geometrical abstraction processes. When conventionalized language forms are mentioned, the negative meaning of “unexplainable language exceptions” also emerges. However, what is often forgotten is that the complexities (thus, non-systematicities) of the way we think are reflected in language complexities and vice-versa. Even a basic spatial relation, the parameters of which are explainable by means of perceptible factors, can be seen and coded from several different perspectives. Even more perspectives are open when spatial relations are mapped onto the more abstract relations. A language or a dialect may choose one possibility at one point in space or time, with that choice constantly influencing not only other related categories in that particular language, but also the way language users conceptualize other categories. In addition, the present stage in the development of a language is only one stage that reflects the interplay of various aspects that have determined language history.

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Corpora

Croatian: Hrvatska jezična mrežna riznica; <http://riznica.ihjj.hr/philologic/>

Polish: IPI PAN; <http://korpus.pl/>

Russian: Nacionalnyj korpus ruskogo jazyka; <http://ruscorpora.ru/>

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PRELIMINARNA SEMANTIČKA ANALIZA HRVATSKOG PRIJEDLOGA *U* I NJEGOVIH SLAVENSKIH EKVIVALENATA

Predmet je ovoga članka analiza semantičke strukture prijedloga *u* u okviru kognitivne semantike. Analiza se koncentrira na čimbenike koji uvjetuju i ograničuju uporabu prijedloga *u* kao jezičnog izraza jednog od osnovnih prostornih odnosa - odnosa sadržanosti - te na razradu osnovnih slikovnih shema povezanih s lokativnim i akuzativnim kontekstima prijedloga *u*. Razradi nije cilj prikupiti i klasificirati sve tipove konteksta u kojima se analizirani prijedlog može pojaviti, već uputiti na opće tipove prostornih odnosa koje on naznačuje, te smjerove proširenja prijedložnih značenja iz prostorne domene u druge domene. Komparativni dio analize usredotočuje se na elemente koje slavenski jezici dijele u poimanju osnovnih prostornih i iz njih izvedenih odnosa, kao i na one koji ih razlikuju.

Ključne riječi: prostorni prijedlozi; prijedlog *u*; sadržanost; slikovne sheme u statičnim i dinamičnim kontekstima.