FROM PHYSICAL TO ABSTRACT AFFECTEDNESS: THE PREPOSITIONS VRZ AND VĀRHU IN BALKAN SLAVIC

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ABSTRACT

This article investigates the semantics of the Macedonian preposition *vrz* and its Bulgarian counterpart *vārhū* from a cognitive perspective. These prepositions represent a rare case of coding the functional meaning of landmark (LM) affectedness, which we understand as a characteristic of a force-dynamic pattern. The article has two related goals: to explain the polysemy of *vrz/vārhū* by discovering the semantic links between its spatial and non-spatial senses and to filter out the semantic components that *vrz/vārhū* shares with other related spatial prepositions, such as *na* ‘on’, *po* ‘across, over’, *preku/prez* ‘over’, and *nad* ‘over, above’. The dictionary definitions of both prepositions do not include the affectedness meaning, a fact that obscures the difference in use between *vrz/vārhū* and the prepositions mentioned above. The authors, on the other hand, show how the spatial domain of *vrz/vārhū* is shared by other semantically similar prepositions of superposition and offer an explanation as to why they differ.

An analysis of *vrz/vārhū* based on the authors’ collection of examples helps determine the role of the semantic component of “affectedness” responsible for the special position of this preposition among the prepositions that express superposition. This component is often found with verbs denoting downward movement, such as *fall*, *put*, *pour*, *hit*, and *throw upon*, which underscore the affectedness of the LM in conveying the meaning of superposition. This prototype effect is preserved in all spatial extensions, although considerably weakened in the covering sense (*Stavete kilim vrz svetol pod*. ‘Put a rug over a light floor’). It is also pronounced in the non-spatial extensions of *vrz/vārhū* with predicates such as *vlijae vrz* ‘influence’, *se fokusira vrz* ‘focus on’, *prezema kontrola vrz* ‘take control of’ and other similar cases of conceptual transfer from physical to mental/emotional affectedness.

Even though the semantic component of affectedness is also characteristic of the Bulgarian preposition *vārhū*, the analysis of the Bulgarian examples shows that *vārhū*, in comparison to *vrz*, does not adhere to this criterion so strictly. This results in a wider distribution of *vārhū* in both physical and abstract domains.

[1] INTRODUCTION

This article investigates the semantics of the Macedonian preposition *vrz* and its Bulgarian counterpart *vārhu* from a cognitive perspective. These prepositions represent a rare case of coding the functional meaning of affectedness of the reference object (i.e., landmark, LM)¹ and thus illustrate the role of a force-dynamic pattern in their semantic structure. Our point here is to show that the functional meaning of affectedness is dominant in the semantics of *vrz/vārhu*, especially in Macedonian. We agree with an anonymous reviewer's observation that the functional meaning of affectedness is part of the semantics of almost all prepositions of superposition, but it is our belief that it is often in the background. We wanted to point out that in this preposition affectedness is foregrounded and part of its semantic profile. Therefore, this meaning appears to be decisive in delimiting this preposition (particularly *vrz*) from other rival prepositions of superposition. However, it is not equally present in all uses, an issue discussed in Section [2].

The concept of “affectedness” has been used in research on transitivity and argument structure, especially in determining patienthood “usually construed as a persistent change in or impingement of an event participant” (Beavers 2011, 335). Similarly, in discussing the semantic macroroles, Van Valin (2002, 8) maintains that “[a]ffectedness concerns whether a participant is affected in some way in a state of affairs” and points out that affectedness is a gradable property; that is, “it may range from very great, as with the situations denoted by verbs like *crush*, *kill*, and *smash*, to quite little, as with the states of affairs depicted by verbs like *see* and *like*.”² Drawing on this definition, we use the term “affectedness” for a relation between two objects, but argue that it can also be encoded in the preposition.³ We understand “affectedness” as a characteristic of a force-dynamic pattern (Talmy 2000, 413) in which the object (agonist) moves downward due to gravitational force and the LM (antagonist) “holds” it or “stands” in its way; for example, *padna vrz* ‘fall upon’, *hvārlja se vārhu* ‘throw oneself on’. The LM becomes affected because it receives force from the object's directed motion during its change of location.⁴ Although this semantic property is related to dynamic verbs of change, we argue that the prepositions *vrz/vārhu*, in signaling the endpoint of force transmission, may also convey affectedness. We believe that this preposi-

- [1] The term *reference object* is used in Cognitive Grammar to indicate the less salient element in a figure-ground organization, interchangeably with the term *ground*, e.g., (Talmy 2000, 184). The term *landmark* is also used for this concept, following Langacker (see (Talmy 2000, 253, fn.4); (Langacker 2008, 70)). In this article we mainly adopt the terms *landmark* (LM) for ground and *trajector* (TR) for figure.
- [2] Beavers (2011, 24) also argues in favor of degrees of affectedness encoded in verbs (i.e., predicates), proposing an affectedness hierarchy on a semantic basis.
- [3] The term *affectedness* is also often used in relation to ditransitive constructions involving a dative case (Beavers 2011) and external possession (Janda 1993); (Dąbrowska 1997); (Mitkovska 2007), where the physical and psychological effects on the affected participant merge.
- [4] Beavers (2011) notes “As the label ‘force recipient’ conveys, these participants receive force transmission, which creates the appropriate conditions for change to occur, even if it does not.”

tion has acquired this feature due to its frequent occurrence in this force-dynamic model and, consequently, it may imply affectedness even with an ellipted or “non-forceful” verb.⁵

This pattern is especially productive in the abstract domain, where the affectedness feature is instrumental in the conceptualization of situations of control or influence.

The translational equivalents of *vrz/vārh* in other Slavic languages are recruited from the domain of superposition and lack this functional meaning. This preposition is based on the Old Slavic noun ВЪРХЪ (Proto-Slavic **verχъ*) ‘top’. In standard Bulgarian it takes the locative form *vārh*. In Macedonian the final *x* was lost and the deictic particle *z* was added (Skok 1973, 624–625). A similar form, *vrāz*, is in use in colloquial Bulgarian, and *vrz* in Serbian dialects in Kosovo (Skok 1973, 624–625). Other prepositions based on the same lexeme are also present in Bulgarian (e.g., *svārh*, *navārh*) but they have limited distribution and are not considered here. In Serbian and Croatian the prepositions *navrh* ‘on top of’ and *uvrh* ‘at the top of, above’ are in use, but they have no affectedness component.

Adopting a cognitive approach, we base our analysis on the assumption that prepositions represent polysemous units comprising a network of related meanings. We accept the view that the primary senses of prepositions are spatial in nature and they are based in human embodied experience (Johnson 1987). Apart from spatial meanings, prepositions also have functional meanings that can be understood as meaningful consequences of a spatial scene.⁶ The topology of an object (acting as figure; i.e., trajector, TR) in relation to another object (acting as ground; i.e., LM) may create conditions for interaction and mutual influence between them. The functional aspect of a spatial relation gives rise to correlated non-spatial inferences that may develop into abstract meanings. By analyzing the preposition *vrz/vārh*, we would like to shed light on the semantic contribution of the functional element of affectedness to the meaning of this spatial term. How does affectedness relate to the topological element of superposition in the conceptual structure of these prepositions? Does this interrelation depend on context?

[5] *Vrz* implies the LM’s affectedness even if the verb is not forceful (e.g., *sedna* ‘sit down’); this can be illustrated with a contrasting pair of similar situations

- (i) (a) *sedna na stolicata* ‘s/he sat on the chair’
 (b) ??*sedna vrz stolicata* ‘s/he sat upon the chair’

where (b) is rather unusual because the chair is not affected. In a situation in which there is a book on the chair that may be damaged if somebody sits on it, (d) is not only acceptable but even preferable:

- (i) (c) *sedna na knjigata (na stolicata)*
 (d) *sedna vrz knjigata na stolicata*.

[6] For more discussion on the functional meaning of prepositions see, for instance, (Navarro i Ferrando 2001, 61), (Tyler & Evans 2003, 26–27), (Šarić 2008, 18), (Coventry 1998, 256), and (Coventry 2003, 261).

We draw on [Coventry & Garrod's \(2004\)](#) view that geometric and functional components interact to different degrees in different discourse contexts. They argue that, in the case of the spatial term *in*, a functional component of location control interacts with a geometric component of enclosure. These components “support” each other to different degrees when one of them is “weak” ([Coventry & Garrod 2004](#), 53). We assume that there is a similar correlation between affectedness and superposition in the prototypical meanings of *vrz/vārhu*.

Discourse factors should also be taken into consideration in the interpretation of *vrz/vārhu*. Although we are aware that contextual variability influences the interpretation of the prepositions analyzed, we assume that a common topological structure—an abstract schema—unites all the meanings in different contexts ([Taylor 2002](#), 519–520). However, the functional component in the semantics of the preposition *vrz/vārhu* seems to be decisive in delimitating them from other superpositional prepositions that share a similar topological meaning. Coventry's position (2003, 266–267) that prepositions may be differently affected by pragmatic and semantic information and that in some contexts functional relations dominate⁷ is supported by the behavior of the prepositions *vrz* and *vārhu*. Various contextual factors either highlight or background a particular geometric or functional feature in their semantic structure. This in turn causes widening or narrowing of their semantic scope, which results in different contextual applicability of these prepositions.

This article discusses the polysemy of the preposition *vrz* in Macedonian and compares it with the Bulgarian preposition *vārhu* in order to establish the functional zone of these similar prepositions. Although the two languages use the same preposition as translational equivalents, the distribution and frequency of uses do not overlap because “the boundaries between the contrasting categories often differ” ([Šarić 2008](#), 229). In addition, we isolate the semantic components that *vrz/vārhu* shares with similar prepositions of superposition—*na* ‘on’, *po* ‘across, over’, *preku/prez* ‘over’, and *nad* ‘above/over’—and determine the features that distinguish *vrz/vārhu* from them.

The Macedonian dictionaries list several senses of *vrz*, which can be divided into spatial and non-spatial. The first meaning listed usually describes the spatial relation involving position or movement of an object on top of or along/over the surface of something ([Koneski 2003](#), 309–310), or an object on or over/along the upper surface of something ([Murgoski 2005](#), 96). Such definitions indicate the semantic affinity of *vrz* with the prepositions *na*, *po*, and *nad*. The second sense listed is non-spatial, vaguely defined as “object of the activity” ([Koneski 2003](#), 309–310)

[7] [Coventry \(2003, 267\)](#) states that “it is possible to create a context in which functional relations dominate. Therefore, contrary to the commonly held view that there is a single system underlying spatial language and spatial representation that is geometric in nature, the evidence points to the need for the instantiation of multiple systems of representation that are integrated ‘in line.’”

or an activity producing some effect (Murgoski 2005, 96). There is also mention of the sense “piling up objects of equal type” and the set phrase *vrz osnova na* ‘on the basis of’. Similar explanations are given for the Bulgarian counterpart. According to Bulgarian dictionaries (Andrejčin et al. 1963, 99) and electronic dictionaries,⁸ the spatial meanings of *vārhū* correspond to those of *vrz*: superposition and movement to the “object of activity.” However, in both meanings, no distinction is made between physical and abstract senses, although the examples presented clearly illustrate the difference.

Our analysis is based on more than 350 examples collected from authentic sources, electronic as well as printed (both Macedonian and Bulgarian).⁹ In contrast to traditional lexicographic descriptions of the meanings of *vrz/vārhū*, the cognitive approach allows us not only to determine the spatial senses, but also to recognize the functional ones. In Section [2] we describe how they arise from the spatial relation of *vrz/vārhū* and further develop into abstract senses, thus forming a network of related senses. The proposed network shows the regularity of semantic change, whereas the comparison of *vrz/vārhū* with similar prepositions in each use helps establish the functional scope of the prepositions analyzed. In Section [3] the relation between the rival prepositions coding superposition is summarized and Section [4] offers some concluding remarks.

[2] SPATIAL SENSES OF VRZ/VĀRHU AND ITS RELATED NON-SPATIAL SENSES

[2.1] Vertical static spatial meaning: prominence

In the vertical static spatial meaning, *vrz/vārhū* indicates that a static object is positioned on the upper surface of the LM. Although this meaning is infrequent, especially in *vrz*, the lexical semantics of ‘top’ seems to be the source for the other two senses. We presume that in the creation of a LM’s prototypical meaning of affectedness the shape of the LM plays an important role: it is convex with a protruding upper part (1). However, with the extension of its use onto other LMs, the protruding requirement becomes neutralized. In such uses, *vrz* is very similar to *na* or *nad* and hence often mutually interchangeable. Yet they all differ with respect to their functional meaning: unlike *na*, *vrz* implies that the TR dominates the scene (1) and/or affects the LM in some way (2). The affectedness component is rather low, especially in Bulgarian *vārhū* (3), which is more frequently used in this meaning than Macedonian *vrz*. Thus, the reason why many Bulgarian exam-

[8] <http://rechnik.info>; <http://www.t-rechnik.info/search.php?search>

[9] Because there is no comprehensive electronic corpus of Macedonian, we collected examples from various sources. The sources include internet blogs and forums, electronic versions of newspapers, magazines, books, and printed sources. The printed sources consist of Macedonian and Bulgarian short stories: Dragi Mihajlovski, *Peperutkarot* (Skopje: Kaprikornus, 2010); Rumena Bužarovska, *Osmica* (Skopje: Blesok, 2010); Dimităr Tolev, *Razkazi, povesti* (Sofia: Narodna kultura, 1967); Kristina Dimitrova, *Ljubov i smrt pod krivite kruši* (Sofia: Obsidijan, 2004). The examples used in the article were translated by the authors. Macedonian examples are marked with (M) and Bulgarian with (B).

ples with *vārhu* cannot be translated with *vrz* is the absence of affectedness in a given situation. For instance, the translation equivalents of the movie title *Bird on a Wire* are *Ptica vārhu žica* in Bulgarian and *Ptica na žica* in Macedonian. The alternative variant with *vrz* would imply that the bird's pressure on the wire causes a certain sagging.

- (1) a. Štipskite vernici ne sakaat antena **vrz** kambanarijata. (M)
'The faithful in Štip don't want an antenna **on top of** the bell tower.'
b. Vašiot ured ne mora da stoi **vrz** televizor. (M)
'Your gadget doesn't have to be **on** the TV set.'
- (2) Luĝeto pominuvaat, se zagleduvaat vo čudnata gletka, a drvoto ušte stoi **vrz** avtomobilot.
'People pass by, stare at this strange scene, but the tree is still **on top of** the car.'
- (3) Žiteli na Sozopol skočiha sreštu stroeža na moderen hotel **vārhu** skalite. (B)
'The residents of Sozopol protested against the construction of a modern hotel **on** the cliff top.'

[2.2] *Physical support: pressure*

The meaning of physical support hinges on the features of contact and dimensionality. This relation profiles a voluminous TR positioned on a LM as a supporting ground, basically similar to the relation expressed by the preposition *na*. However, unlike *na*, the preposition *vrz/vārhu* suggests that LM supports the TR despite the latter's considerable weight. In fact, the difference between these two prepositions is not topological, but affective: the preposition *na* states only the position, while *vrz/vārhu* adds an expressive dimension to the relation. In the following examples, *vrz/vārhu* can be replaced by *na* without any change in meaning, but *vrz/vārhu* emphasizes the TR's size and/or pressure.

- (4) Kupolata se potpira **vrz/na** četiri stolba. (M)
'The dome rests **on** four columns.'
- (5) Toje bleden, no spokojen, podpira se s dvete si rače **vārhu** sabljata. (B)
'He is pale, but calm, leans with both hands **on** his saber.'

[2.3] *Abstract meaning: psychological/mental support, base*

The abstract meaning of support in Macedonian *vrz* is a product of metaphorical transfer from the relation of physical support into the domain of human relations or reasoning. Thus, *vrz* denotes some kind of reinforcement that comes from the reference base (6). Associative relations can also be established between physical entities, as well as people (7).

- (6) Državata se potpira vrz silna populistička propaganda. (M)
 ‘The country relies on strong populist propaganda.’
- (7) Podatocite **vrz** koi se zasnova procenata za rizikot (M)
 ‘Data **on** which the estimation of risk relies’

Bulgarian *vārhu* seems to be much less frequent in this meaning, although we encounter examples with the verb *opira se* ‘is based’ (8).

- (8) Opirat se **vārhu** indianski duhovni tradicii na Kasteneda, Redfijld i dr. (B)
 ‘They rely **on** the Indian spiritual traditions of Castaneda, Redfield, etc.’

The preposition *na* is equally possible in expressing such abstract relations (9) both in Macedonian and Bulgarian, and it seems to be more frequently used because of its neutral tone. Due to its expressivity, the preposition *vrz/vārhu* may serve stylistic purposes.

- (9) Estonija *ke* se potpira **na/vrz** NATO za da se zaštiti od neprijateljot. (M)
 ‘Estonia will rely **on** NATO to protect itself from an enemy.’

More detailed investigation into the syntactic and semantic conditions for occurrence of the two prepositions might shed some light on the divergent tendencies in their behavior. Apart from the expressive nature of *vrz* already mentioned, the polyfunctionality of *na* may also be a relevant factor for the choice of *vrz*.

The preposition *na* cannot replace *vrz* in the set phrase *vrz osnova na* ‘on the basis of’ based on the metaphor of support. This complex preposition is quite common in administrative registers: *vrz osnova na člen 75* ‘on the basis of Article 75’, *vrz osnova na izjavata na* ‘on the basis of the statement of’. Bulgarian uses the preposition *vāz* in the same construction *vāz osnova na* ‘on the basis of’, which is commonly used in administrative styles (Pašov 2002, 247).

[2.4] *Force-dynamic meaning: motion resulting in affectedness (physical impact)*

The vertical dynamic spatial sense of *vrz/vārhu* seems to be the most frequent in both languages. The preposition evokes an image of an object (TR) coming down on another object (LM) with speed and force, ending up located with its full lower surface on the upper surface of the LM (10) and (11). The role of force is crucial for this configuration, as well as for a number of other conceptualizations.¹⁰ This force-dynamic pattern gives rise to a functional meaning of affectedness, which arises in combination with verbs of forceful physical motion. It is precisely because of the frequent occurrence of *vrz/vārhu* with such verbs that the meaning of

[10] Johnson (1987, 42) notes that: “Because force is everywhere, we tend to take it for granted and to overlook the nature of its operation. We easily forget that our bodies are clusters of forces and that every event of which we are part consists, minimally, of forces in interaction.”

“affectedness” becomes associated with this preposition.¹¹ The use of the preposition *vrz/vārhu* automatically presupposes that the TR somehow affects the LM by its action.

- (10) Nepoznati napaѓači včera frlile molotov koktel **vrz** turskiot konzulat. (M)
 ‘Unknown assailants threw a Molotov cocktail **at** the Turkish consulate yesterday.’
- (11) Kola padna **vārhu** kášta pālna s deca. (B)
 ‘The car fell **on** a house full of children.’

The affectedness effect is often reinforced by some context elements that emphasize the weight of the TR (12) or explicitly state its consequences on the TR (13). These elements are, however, only additional contextual support and do not determine the meaning of the preposition. Thus, in (12), if the phrase *težok dožd* ‘heavy rain’ is replaced by *siten dožd* ‘light rain’, the affectedness meaning will not be eliminated.¹²

- (12) Težok dožd paѓa **vrz** moeto telo. (M)
 ‘Heavy rain falls **on** my body.’
- (13) Težok kufer paѓa **vrz** glavata na dedoto a patnicite konstatiraat deka e mrtov. (M)
 ‘A heavy suitcase falls **on** the old man’s head and the passengers determine that he is dead.’

The TR may be a liquid or other type of material that affects the LM with its physical or chemical properties: in (14) coffee damages the communications system, and in (15) light dispels darkness.

- (14) Pilotot go isturil svoeto kafe **vrz** opremeta za komunikacija na avionot. (M)
 ‘The pilot spilled his coffee **over** the communications system on the dashboard of the aircraft.’
- (15) Svetlinata se izsipva **vārhu** platnoto za da progoni mraka v očite. (B)
 ‘The light falls **on** the canvas in order to dispel darkness.’

This functional meaning of affectedness sets *vrz/vārhu* apart from the comparable spatial preposition *na* ‘on’, which also codes physical contact, but profiles support rather than pressure. In our collected examples, *vrz/vārhu* predominantly collocates with verbs that code forceful downward movement (*paѓa* ‘fall’, *isturi* ‘pour’, *frla* ‘throw’, *udira* ‘hit’) as in (16), but there are also verbs with no special force

[11] This conclusion dovetails with an anonymous reviewer’s observation.

[12] We thank an anonymous reviewer for bringing up this point.

implication (*stavi* ‘put’, *se roni* ‘crumble’). In (17a) the passersby are affected even though the verb itself does not imply force; in (17b) it is the preposition *vrz* that produces such an effect, not the neutral verb *stavi* ‘put’. This suggests that the preposition itself can create the affectedness scenario.

- (16) Zaradi silnija vjatar v stolicata dārvo padna **vārhu** mlad māj dokato toj izlizal ot ... (B)
 ‘Due to strong wind in the capital, a tree fell **on** a young man when he was coming out ...’
- (17) a. Fasadite se lupat ... i se ronat **vrz** glavite na minuvačite. (M)
 ‘The façades of the houses crack and fall **on** the heads of the passersby.’
 b. Ne ja stavaj kutijata **vrz** masata. Ėe ja oštetiš. (M)
 ‘Don’t put the box **on** the table. You’ll damage it.’

This implication of affectedness is preserved even in static conceptualization, where the weight of the TR is perceived as exerting some considerable effect on the LM (18).

- (18) Tumorot pritiska **vrz** nervite. (M)
 ‘The tumor presses **on** the nerves.’

[2.5] *Abstract meaning: affectedness through physical impact*

The “impact” meaning that codes “placing TR on top of the LM and in the process considerably affecting it” is directly related to the meaning of physical and psychological affectedness of the LM. In such relations, the contact feature is not central, but only marginally implied. The TR makes an intended impact on the LM by some forceful movement (*puka* ‘shoot’) or forceful activity (*se izživuva* ‘molest’), as in (19). The effects on the TR may be highlighted even if the action is not physically forceful (20).

- (19) Obvinetiot se tovari deka seksualno se izživuval **vrz** deteto. (M)
 ‘The accused is charged with sexually molesting the child.’
- (20) Ne kupuvam stoki testvani **vārhu** životni. (B)
 ‘I don’t buy goods tested **on** animals.’

The affectedness meaning of *vrz/vārhu* is often expressed in collocations with nominalizations (*napad* ‘attack’, *atentat* ‘assassination’, *vandalizam* ‘vandalism’, *nasilstvo* ‘violence’) or periphrastic predicates in which the activity is coded by an abstract noun or nominalization in a construction with a light verb “V N *vrz/vārhu* N” (*vrši napad* ‘attack’, *vrši operacija* ‘operate on’, *vrši intervencija* ‘intervene’, *primenuva nasilstvo* ‘apply violence’).

- (21) Londonskata policija primeni nasilstvo **vrz** demonstranti (M)
 ‘London police applied force **against** protesters.’
- (22) Teroristite izvāršvat genocid **vārhu** deca v Holms (B)
 ‘Terrorists are carrying out genocide **on** children in Holms.’

Following the same pattern, *vrz/vārhu* builds constructions with *nomina agentis* such as *napaġač* ‘attacker’, *vladetel* ‘ruler’, and so on. These nominals absorb the first argument of the nominalized predication, rendering the type of activity through the semantics of the agent. Thus in (23) the verbal nominalizations that appear as TRs in the relation expressed by the preposition in fact represent a metonymy for the activity: *napaġačot A vrz B* ‘the attacker A upon B’ < ‘A attacks B’. In Bulgarian the preposition *nad* is preferred to *vārhu* in similar contexts, as in (24).

- (23) Napaġačot **vrz** komplekstot na ON e uapsen. (M)
 ‘The attacker **on** the UN headquarters has been arrested.’
- (24) Razkriha napadatel **nad** ženi. (B)
 ‘The attacker **on** women has been found.’

[2.6] *Abstract affectedness and influence/control*

Expressions coding physical affectedness (e.g., *udri vrz*, *pritiska vrz*, *napaġa vrz*) in both languages can be extended to relations with abstract LMs, thus giving rise to abstract affectedness (25) and (26).

- (25) Poskapiot benzin pritiska **vrz** cenite na transportnite uslugi. (M)
 ‘Expensive gasoline puts pressure **on** the price of transportation.’
- (26) Vsičkite igri ... s cenite na brašnoto, reflektiraha lošo **vārhu** hljaba. (B)
 ‘The manipulations of flour prices have had a negative impact **on** bread.’

If the LM is personal or metonymically points to people, as in examples (27) and (28), the relation coded by the preposition *vrz/vārhu* is liable to further abstraction. The impact of the TR is viewed as producing psychological effects on the LM (29).

- (27) Korumpiranite sindikati težat **vrz** grbot na rabotnicite. (M)
 ‘Corrupt trade unions weigh **on** the backs of the workers.’
- (28) Dolgovite pritiskaat **vrz** firmite. (M)
 ‘Debts put pressure **on** firms.’
- (29) Spisokāt na žertvite koito težat **vārhu** sāvestta na carja, ne svāršava tuk. (B)
 ‘The list of victims weighing **on** the czar’s conscience does not end here.’

The functional meaning of affectedness expressed by *vrz/vārhu* extends into the abstract domain to meanings of the TR's exertion of influence and/or control on the LM, where the physical contact component is irrelevant, cf. examples (30) and (31). In such relations, an abstract or physical TR affects the LM with some inherent property or by directing energy towards the LM.

- (30) Beliot leb štetno deluva **vrz** zdravjeto na luġeto. (M)
'White bread has negative effects **on** people's health.'
- (31) Depresijata na majkata vlija **vārhu** mozāka na deteto. (B)
'A mother's depressive state has an effect **on** her child's brain.'

The same verbs, periphrastic predicates and nominals that appear in physical relations contexts (*paġa* 'fall', *frla* 'throw', *istura* 'spill') combine with *vrz* to code *abstract relations*. To convey psychological effects of control exertion, *vrz* co-occurs in various constructions: 1) with abstract nouns (*danok* 'tax', *embargo* 'embargo', *veto* 'veto', *pravo* 'right', *sopstvenost* 'ownership'); 2) with resultative or event nominals, (*vlijanie* 'influence', *vnimanie* 'attention', *koncentriranje* 'concentration', *fokusiranje* 'focusing', *pogled* 'glance/view', *dejstvo* 'effect', *udar* 'attack', *pritisok* 'pressure'), and 3) in periphrastic predicates (*vrši pritisok vrz naselenieto* 'puts pressure on citizens', *vrši kontrola vrz proizvodstvoto* 'conducts control over the production', *vrši vlijanie vrz glasačite* 'exerts influence over voters', *frli pogled vrz knjigata* 'cast a glance at the book'), which is a more common pattern than with a single verb.¹³

When the same meaning is not rendered by a periphrastic predicate but by a single verb, three types of complementation patterns are possible: a) some verbs require direct objects (*vrši kontrola vrz proizvodstvoto* > *go kontrolira proizvodstvoto* 'maintains control over the production' > 'controls the production'), b) some require prepositional objects (*vrši vlijanie vrz glasačite* > *vlija vrz glasačite* 'exerts influence over voters' > 'influences voters'), and c) some verbs allow both (*go pritiska naselenieto/pritiska vrz naselenieto* 'puts pressure on the citizens/pressure the citizens'), the difference being in the degree of the LM's affectedness. However, in a number of cases in both languages the periphrastic predicate cannot be replaced by a single verb: *frla senka/damka* 'casts a shadow', *prezema kontrola* 'takes control', *ima efekti* 'has effects', *ima/dava pravo* 'has/gives the right', etc.), exemplified in (32) and (33).

- (32) NATO ja prezeđe kontrolata **vrz** voenata akcija protiv Libija. (M)
'NATO has assumed control **over** the military operation in Libya.'

[13] The same types of constructions occur in Bulgarian with *vārhu*: *hvārlja petno vārhu cjalata bolnica* 'cast a shadow over the whole hospital', *ima efekti vārhu čoveškija organizām* 'has effects on human body'.

- (33) Edin otdelen incident ne može da hvärli sjanka **värhu** tradicionno dobreite otnošeniya. (B)
 ‘A single incident cannot cast a shadow **over** traditionally good relations.’

Regular co-occurrence of certain light verbs with *vrz/värhu* has resulted in their idiomatization. A typical example is the verb *pağa* ‘fall’ in examples (34) and (35).

- (34) Odgovornosta pağa **vrz** organizatorot na demonstraciite. (M)
 ‘The responsibility falls **on** the organizer of the demonstrations.’
- (35) Iskame **värhu** našeto ime kato partija da ne pada petänce. (B)
 ‘We, as a party, demand that no blemish should be cast **upon** our name.’

[2.7] *Abstract meaning: attention focusing and activity absorption*

The semantic component *odozgora* ‘on top of’ represents a base for the rise of the functional meaning of mental focusing. With certain predicates, *vrz/värhu* denotes that a human TR directs attention towards an LM engaged in some mental activity. Usually *vrz/värhu* combines with the verb *raboti* ‘work’, cf. examples (36) and (37), but other verbs are also encountered (e.g., *se zamisli vrz problemot* ‘reflected on the problem’, *se fokusira vrz ekonomijata* ‘to focus on the economy’).

- (36) Rabotam **vrz** najnoviot poetski rakopis. (M)
 ‘I am working **on** my latest poetry manuscript.’
- (37) Rabotja **värhu** nova kniga. (B)
 ‘I am working **on** a new book.’

The agent’s focus on the object is also expressed with the prepositions *na* and *nad*. The former is more common in both languages, whereas the latter is characteristic for Bulgarian, but less frequent in Macedonian.¹⁴ Even though there are contexts in which all three prepositions are interchangeable, each one has a specific, often contextual, nuance that is difficult to capture. The reason for their specialized application may lie in the conventionalization of collocational combinations.

Topic/theme (in Bulgarian only)

Additionally, the Bulgarian preposition *värhu* occurs in the abstract meaning of “aboutness” or “topic/theme” (38), whereas its Macedonian counterpart *vrz* has not developed such a use. Macedonian employs the preposition *za* ‘for, about’ to express this relation. Such uses involve predicates of speech and cognition, in

[14] Cf. (Mitkovska & Bužarovska 2012, 130–131) on the use of the preposition *nad* in South Slavic languages and Tyler and Evans’s analysis of *over* (Tyler & Evans 2001).

whih the preposition marks the topic of conversation or thought and could be paraphrased as ‘relating to, with reference to, with regard to’.

- (38) Tekstāt spodelja razmisli **vārhū** neobičajnata situacija. (B)
 ‘The text conveys thoughts **about** the unusual situation.’

[2.8] *Competition between the preposition vrz/vārhū and na*

In the meaning of physical affectedness, the preposition *vrz/vārhū* competes with *na* ‘on’. Because both imply that the TR comes to or is positioned in contact with the LM (which usually supports the TR on the upper surface), they are interchangeable in many contexts (39). However, the main feature of *on* is control: the LM controls the location of the TR in the horizontal or vertical axis of the LM (Beavers 2002), whereas *vrz/vārhū* highlights the effect of the attachment of the TR with the LM.¹⁵ The examples analyzed suggest that the implication of affectedness is inherent in *vrz* whereas *na* is neutral in this respect. This explains why in some contexts the use of *na* is either not preferred or marginal (40).

- (39) Nepoznati napačagi včera frlile molotov koktel **vrz/na** turskiot konzulat. (M)
 ‘Unknown assailants yesterday threw a Molotov cocktail **at** the Turkish consulate.’
- (40) Most star 150 godini padna **vrz/?na** voz što pominuval pod nego i ubi 33 patnici. (M)
 ‘A 150-year-old bridge collapsed **on** a train passing under it and killed 33 passengers.’

The preposition *vrz/vārhū* is mainly used with predicates (or their nominalizations), signaling that the second participant is strongly affected by the activity; namely, it emphasizes the patienthood of the second participant, whereas *na* invites no such inference. This difference is equally maintained in abstract relations, although not as regularly because the choice depends more heavily on the speaker/writer’s construal of the relation (compare examples (30)–(31) with examples (41)–(42)). In such cases, the two prepositions are used for stylistic variation.

- (41) Slabeenjeto može štetno da deluva **vrz** zdravjeto. (M)
 ‘Slimming down can be harmful **to** one’s health.’
- (42) Esenta naistina vlijae **na** nastroenieto. (B)
 ‘Autumn really can affect one’s mood.’

[15] According to Brala (2005), the domain of SUPERPOSITION lexicalized in Croatian by *nad*, *iznad*, *preko*, and *na* is split into two subordinate levels: +/- ATTACHMENT (*na* vs. *nad*, *iznad*, *preko*).

Another reason for choosing *vrz* over *na* is to avoid the ambiguity that the multi-functional preposition *na* could create. Because *na* is used for both agentive and patientive participants of a nominalized predication, it may be unclear whether the object of the preposition refers to the initiator or the undergoer, whereas *vrz* clearly points to the patient. Thus, the expression *pritisok na vladata* ‘pressure of/on the government’ may be interpreted as ‘pressure of the government’ or ‘pressure on the government’ but the use of *vrz* in *pritisok vrz vladata* clarifies that the government is the affected entity.

Furthermore, the preposition *na* is used for marking both possession and indirect object (experiencer or recipient), causing ambiguity in certain contexts. By using *vrz*, the speaker/writer clearly points at the experiencer (43). In addition, *vrz*, in contrast to *na*, possesses certain expressivity and thus is more common in headlines as a stylistic attention-capturing device, whereas the body text contains *na*, as in the following example.¹⁶

- (43) Doždot i gradot napravija šteti **vrz** posevite. (headline)
 Spored informaciite od farmerite gradot napravi šteti **na** žitnite i gradi-
 narski kulturi. (M)
 ‘Rain and hail cause damage **to** crops.
 According to information from farmers, the hailstorm caused damage **to**
 crops in fields and gardens.’

In Bulgarian, the obsolete preposition *vrāz* is found instead of *vārhu* in stylistically marked contexts.¹⁷ In newspaper headlines (44) and literary prose (45), it conveys a greater degree of expressivity.

- (44) Džip parkira **vrāz** stāpalata na Etnografskija muzej. (B)
 ‘The jeep parked **at** the entry to the Ethnographic Museum.’
 (45) Snegāt turi smālčana pokrivka **vrāz** vsičko. (B)
 ‘The snow spread a silent cover **over** everything.’

[2.9] *Horizontal spatial meaning: spreading over a surface, covering*

The third spatial meaning of *vrz/vārhu* presupposes contact of the TR with a broader surface of the LM, usually the entire upper surface, which gives rise to the functional meaning of partial or full covering; examples (46) and (47). In (46), the print covers part of the shirt; it also indicates that the TR and LM are not necessarily positioned on the vertical axis. Actually, here the location of the TR on the horizontal axis is controlled by a planar LM.

[16] This is perhaps one of the reasons why we encounter *vrz* in poetry more often than in other genres.

[17] We would like to thank Ivelina Tchizmarova for this observation and for providing exhaustive interpretation of the examples with *vrāz*.

- (46) Pečatenje **vrz** maici i tekstil. (M)
 ‘Printing **on** T-shirts and fabric.’
- (47) Razlivam voda **vārhū** masata. (B)
 ‘I spill water **over** the table.’

Given that the TR is not concentrated on a limited spot of the LM, it is not viewed as producing a considerable impact. Therefore the affectedness component is negligible or totally absent. It seems that the presence of the feature of dimensionality (or rather planarity) of the “controller” LM (Brala 2005) suspends the affectedness effect of the TR’s superpositional attachment onto the LM. The degree of affectedness also depends on the physical makeup of the object; for example, liquids versus solid objects, as in (47).

Bulgarian *vārhū* is more often encountered in this meaning than *vrz* in Macedonian; the latter has a limited distribution, probably because it suggests verticality and hence the affectedness effect is more pronounced. Quite often in such contexts the Macedonian equivalent of *vārhū* is not *vrz*, but *na* or *po*, as in examples (48) and (49).

- (48) “Bālgarija **vārhū** kulturnata karta na sveta” e mnogo ljubopitna kniga.
 (= *na*) (B)
 ‘Bulgaria **on** the Cultural Map of the World is a very curious book.’
- (49) Arabski tatuirovki **vārhū** telata na zvezdi. (= *po*) (B)
 ‘Arabic tattoos **all over** the bodies of pop stars.’

In contexts in which both prepositions are possible in the two languages, *vārhū* prevails in Bulgarian, whereas *na* is more common in Macedonian, although *vrz* is also an option, cf. examples (50) and (51).

- (50) a. Nanesete smesata **vārhū** liceto i sled 20 minuti izmijte. (B)
 b. Nanesete ja smesata **na** liceto i držete ja 20 minuti. (M)
 ‘Apply the mixture **to** your face and let it sit for 20 minutes.’
- (51) a. Evropejskata komisija odobri novi 14 predupreditelni nadpisa, koito šte mogat da bādat otpečatvani **vārhū** kutiite s cigari. (B)
 ‘The European Commission has approved fourteen new graphic warnings that may be printed **on** cigarette packs.’
 b. Spored sudijata, grafičkite predupreduvanja za štetnosta od pušenjeto **vrz** kutiite so cigari i **vrz** reklamnite materijali gi prekršuvaaat osnovnite slobodi. (M)
 ‘According to the judge, the graphic warnings concerning the hazards of smoking **on** cigarette packs and **on** advertising materials violate basic rights.’

TABLE 1: Google search results for *vārhu*/*vrz* and *na* in contexts of spreading over a surface

	Bulgarian	Macedonian
	(nadpisi) <i>vārhu</i> cigareni paketi – 13,900 hits	(natpisi) <i>vrz</i> kutii so cigari – 4 hits
	‘(labels) on cigarette packs’	
	(nadpisi) <i>na</i> cigareni paketi – 9 hits	(natpisi) <i>na</i> kutii so cigari – 10,200 hits
	‘(labels) on cigarette packs’	
Ratio	<i>vārhu</i> to <i>na</i> 99.94% to 0.06%	<i>vrz</i> to <i>na</i> 0.04% to 99.96%
	Nanesete smesata <i>vārhu</i> liceto – 45,700 hits	Nanesete ja smesata <i>vrz</i> liceto – 1 hit
	‘Apply the mixture [all] over your face.’	
	Nanesete smesata <i>na</i> liceto – 15,700 hits	Nanesete ja smesata <i>na</i> liceto – 1,790 hits
	‘Apply the mixture to/on your face.’	
Ratio	<i>vārhu</i> to <i>na</i> 74% to 26%	<i>vrz</i> to <i>na</i> 0.055% to 99.94%

Table 1 shows the results of a Google search of four direct strings with *vrz*/*vārhu* and *na*. Although the numbers present the raw score, the differences are indicative of the preferences in the two languages. The results lend support to our conclusion that *vārhu* is far more common in the “spreading” sense than *vrz*.

If the TR’s contact surface is equal or larger than the LM’s, the functional component of covering may be interpreted as “protection” or “hiding from view”, cf. examples (52) and (53), causing the creation of an implicature of layering. This use of both *vrz* and *vārhu* is common in culinary discourse to convey layering in a horizontal structure, illustrated in examples (54) and (55).

- (52) Toj nosi košula **vrz** bluzata. (M)
‘He is wearing a shirt **over** his long-sleeve T-shirt.’
- (53) Toj be obljakāl palto **vārhu** pulovera. (B)
‘He had put on a jacket **over** his pullover.’
- (54) Rezanki od kruškite se stavaat **vrz** sloj od karamela i se pokrivaat so sloj na meko testo. (M)
‘Slices of pear are placed **on** the layer of caramel and are covered with a layer of soft pastry.’
- (55) V tava izsipete solta, sled koeto **vārhu** nejā naredete pileškite butčeta. (B)
‘Cover the pan with a layer of salt and place the chicken legs in a row **over** it.’

Placing the same type of TR one over another (56) produces a special effect that results in the conventionalization of the implicature of layering. This functional meaning makes the construction liable to idiomatization, such as *edin vārhu drug* in (57). In Bulgarian, the colloquial (obsolete) preposition *vrāz* is often used for expressivity in some idiomatic expressions; for instance *sedi krak vrāz krak* ‘sit with crossed legs’, which has the Macedonian equivalent *sedi noga vrz noga*.

- (56) Sloj **vrz** sloj pudra izgleda lošo. (M)
 ‘Layer **upon** layer of powder looks bad.’
- (57) Te trupat matraci edin **vārhu** drug. (B)
 ‘They pile up mattresses one **over** the other.’

The prepositions *preku/po*, *na*, and *nad* compete with *vrz* in this function, but they highlight different aspects of the superposition topology. The focus of *preku/po* falls on the extension of the TR over the entire surface of the LM, underscoring completeness to a higher degree than *vrz* (compare examples (58) and (59)), whereas the use of *na* is neutral regarding the scope of spread/coverage (60); *nad* implies vertical proximity (61).

- (58) Nanesuvajte go proizvodot ... **preku** celata površina. (M)
 ‘Spread the product **over** the whole surface.’
- (59) Koga će se nanese **vrz** pluskavicata, pastata za zabi pobrzo ja suši. (M)
 ‘When you smear toothpaste **over** a blister, the blister dries faster.’
- (60) Nanesete eukaliptusovo maslo **na** krpče i izbrišete. (M)
 ‘Spread eucalyptus oil **on** a piece of cloth and use for cleaning.’
- (61) **Nad** testoto stavete go filot, a **nad** nego šlag krem . . . (M)
 ‘Spread custard over the pastry and put some whipping cream on top . . .’

Sometimes the difference between these prepositions is so negligible that they may be used interchangeably to avoid repetition (62). However, note that *vrz* is used for a smaller object that is on top but does not cover the entire surface of the LM.

- (62) Parčinja gorgonzola stavete **na** sekoe ispečeno lepče, a **vrz** nea stavete jatka orev. (M)
 ‘Put some gorgonzola **on** each toasted slice of bread, and **over** it place half a walnut.’

[2.10] *Abstract meaning: recursiveness*

The meaning of recursive activity (*paleše cigara vrz cigara* ‘He lit cigarette after cigarette’; *pišuvaže pismo vrz pismo* ‘she wrote letter after letter’) is extended from

the sense of physical piling or layering of entities one over another. Repetition of the same activity creates an implicature of quantity that has relevance in some particular context (63). In Bulgarian we found the emotionally-marked preposition *vrāz* in this function (64).

- (63) Se trošat narodnite pari, se udara danok **vrz** danok, . . . (M)
‘The people’s money is spent, tax **after** tax is imposed, . . .’
- (64) Ot tri godini pismo **vrāz** pismo mi piše, ela mi na gosti, badžanak. (B)
‘For three years he’s been writing me letter **after** letter, come and visit me, brother.’

[2.11] *Summary: the network of spatial and abstract meanings of vrz and vārhu*
The semantic network of the prepositions *vrz/vārhu* is shown on Figure 1. As discussed above, three spatial meanings branch from the meaning ‘on top of’ representing the abstract image schema and each has given rise to one or more abstract meanings.

FIGURE 1: The conceptual network of *vrz* and *vārhu*

We distinguish between vertical and horizontal types of meaning on the basis of the nature of the contact. In the vertical meanings it is restricted to a relatively small portion of the LM, whereas in the horizontal ones it spreads radially and

may cover the entire surface. Both orientations are found in static and dynamic patterns. In the vertical orientation, the two patterns are cognitively distinct, which is reflected in the existence of two senses (prominence and impact). This hypothesis is supported by the fact that both senses serve as sources for separate extension pathways: pressure versus affectedness through physical impact. On the other hand, in the horizontal orientation the distinction between the static and dynamic meanings is neutralized in the covering sense with its two contextual variants.

The two varieties of the dynamic pattern may be characterized as a force-dynamic pattern and force-dynamically neutral pattern, the difference being in the orientation of movement: vertical or horizontal. In the force-dynamic pattern, the object comes in contact with the surface as a result of vertical impact¹⁸ (downward movement). The dynamicity of this conceptualization may be neutralized by the different orientation of the impact. In a force-dynamically neutral pattern the object moves radially, in all directions along a planar surface, which is usually but not necessarily horizontal (*pločki vrz dzidot* ‘tiles over the wall’). In sum, the dynamic meanings analyzed share a similar topological configuration of superpositional attachment, the main difference being in the verticality or horizontality of the attachment relation. Verticality produces the meaning of “contact attachment”; that is, only in the place of impact, whereas horizontality conveys “spreading attachment” on all (or a fair amount of) the surface of the LM. As a consequence, the functional component of affectedness weakens at the expense of the covering component, also conveying certain affectedness itself.

The two vertical varieties (impact and prominence) may be conceptualized as two poles of a force-dynamic continuum with different degrees of affectedness. It is most prominent in the vertical dynamic conceptualization of the relation coded by *vrz/vārhu*, which is based on the presupposition of a preceding forceful or neutral movement. The degree of affectedness is lower in the static pattern, which is conceptually simpler because the profiled relation does not trigger the presupposition of movement; that is, the activity that has led to the contact is not in the focal zone of the conceptualization scene.¹⁹ The preposition profiles the relation of the attached superposition, which contextually determines affectedness. However, the distinction between the two patterns is often blurred. In *Ne sedi vrz mojot krevet!* ‘Don’t sit on my bed!’ *vrz* implies some affectedness but the

[18] Compare Lindstromberg’s explanation of the English preposition *against*, which includes the element of force and suggests violent impact (Lindstromberg 1997, 177).

[19] Or in the zone of cognitive “ception.” This partly overlaps with what Langacker calls “focal prominence.” According to Langacker (2008, 365), focal prominence “resides in the directing of attention, made necessary by the difficulty of viewing a complex occurrence in a global and a wholly neutral fashion—we cannot attend to everything equally and simultaneously. As a limited resource, attention has to be allocated and for a given structure different allocations are possible.”

verb itself codes a static situation even though it is obviously a result of a dynamic activity.

Therefore, the three meanings are distinguished by their functional features: prominence, affectedness (impact), and covering, respectively. Each has given rise to a corresponding abstract meaning, with some final branches differing in Macedonian and Bulgarian.

Comparison between vrz and vārhu

The above overview shows that the Macedonian preposition *vrz* and its Bulgarian counterpart *vārhu* are close equivalents used for expressing similar spatial relations of attached superposition. It seems that they have followed similar paths of extension to abstract meanings. However, our analysis has shown that there is difference in usage. It seems that the Bulgarian *vārhu* is more widely used in the senses of “position on top of,” “spread on a surface,” and “support,” in which the affectedness component is weak. The implication of affectedness is more strongly felt in Macedonian *vrz*, which makes it more expressive and thus less common in contexts lacking affectedness. To draw more specific conclusions, though, a precise statistical analysis of the occurrences of these prepositions in the two languages is needed, but at this point such an analysis is unfeasible because there is no extensive electronic corpus of Macedonian.

We also noted some differences in the scope of abstract meanings:

- (i) Bulgarian *vārhu* is used in some abstract meanings in which Macedonian *vrz* is not applied: the meaning ‘about’, expressing topic, was mentioned above (*Sporim vārhu tozi problem* ‘argue over this problem’); second, it has a distributive meaning in expressing percentages (20% *DDS vārhu 1 lev* ‘20% VAT on 1 lev’), where Macedonian uses *na*; in mathematics it is used for expressing ratios (*deset vārhu petnaeset* ‘ten divided by fifteen’).
- (ii) In the abstract meaning of support (*se bazira/zasnova vrz*), Macedonian *vrz* is very common, whereas Bulgarian *vārhu* is restricted to one verb and *na* is more usual.

[3] VRZ AND VĀRHU IN RELATION TO SIMILAR PREPOSITIONS ON SUPERPOSITION

This analysis has revealed the relation of the preposition *vrz/vārhu* to some semantically close prepositions. Our starting premise is that spatial prepositions mark meaning distinctions in a stable conceptual domain and that their meanings are determined in relation to the other prepositions with which they share this domain (Tyler & Evans 2003, 108). Therefore, on the one hand the meaning of a preposition depends on the scope of similar spatial prepositions and, on the other, on specific functional implications evoked by prepositions that give each of them a characteristic nuance.

TABLE 2: Component features of the preposition *vrz* in relation to its similar prepositions

	VRZ	NA	PO, PREKU/PREZ	NAD
contact	+	+	+	+/-
pressure	+	+		
affectedness	+	+		
support	+	+		
spreading	+		+	
covering	+		+	+
layering	+		+	+
overhanging	+			+

Table 2 shows the specific features characteristic for the prepositions *vrz/vārhu*, *na*, *preku/prez*, *po*, and *nad* in the spatial domain expressing a position of a TR on the upper surface of a LM. It is obvious that not all functional components are shared by all prepositions, the contact component being the only common one. Apart from contact, the preposition *vrz/vārhu* shares with *na* the components of pressure, affectedness, and support; it is connected to *preku/prez*, *po* through spreading, covering, and layering, and to *nad* through covering, layering, and overhanging.

Such overlap of features indicates that the domains of these prepositions share a common semantic field, which explains their interchangeability in particular contexts. Figure 2 represents the functional domains of *vrz/vārhu* and the competing prepositions. In contexts in which a particular functional component is prominent, the use of *vrz/vārhu* is compatible with the preposition that has the same property. However, although these prepositions contain the same features in their semantic structure, each preposition displays a different hierarchy of these features. Usually, the dominant feature of a particular preposition distinguishes it from other semantically close prepositions. Thus the meaning of “attached superposition” of *vrz/vārhu* can also be coded by *na*, but the features of pressure, affectedness, and support do not have the same significance in both: whereas *vrz/vārhu* underscores pressure and affectedness, the dominant feature for *na* is support, cf. examples (39) and (40). In the meaning of “spread over some surface, covering,” *vrz/vārhu* shares a domain with *po* and *preku/prez*, but the central feature for the latter is “spreading,” whereas for the corresponding meaning of *vrz/vārhu* it is “covering,” cf. examples (54) and (55). The same function can be expressed by the preposition *nad*, but for this preposition “overhanging” (created by the topology of detached superposition) is the central feature (61).

FIGURE 2: The scope of the preposition *vrz* in relation to similar prepositions

Similar overlaps are typical of non-spatial meanings. Abstract affectedness and/or control over a LM may be expressed by *na*; compare examples (39)–(43). The functional meaning “overhanging” in *vrz* that has derived from “focusing” attention (e.g., with the verb *raboti* ‘work’) may be coded by *nad* and *na*, but *vrz* implies greater directionality, hence involvement. *Vrz/värhu* shares the functional domain of covering with *po*, *preku/prez*, and *na*, but *na* does not imply total spreading (all over the surface), as do *preku/prez* and *po*. Only *vrz/värhu* has developed the “recursiveness” sense derived from “layering.”

The meaning of *support* is more central to spatial *na* than it is for *vrz/värhu*, but *vrz* is more often used for moral support (*se potpiram vrz tebe* ‘I rely on you’ vs. *se potpiram na tebe* ‘I lean on you’). Examples (65)–(67) demonstrate how these prepositions are mutually interchangeable in some contexts, which indicates considerable overlap of their functional zones. Semantic and pragmatic factors such as the nature of participants and the type of activity the participants are involved in determine the choice of the suitable preposition for a particular situation.

- (65) Ja staviv knjigata **na** masata. (**nad*, **vrz*, **preku*) (M)
 ‘I put the book **on** the table.’
- (66) Go rasposlav čaršavot **na** masata. (**nad*, ?*vrz*, *preku*) (M)
 ‘I spread the tablecloth **on** the table.’
- (67) Ja staviv rakata **na** očite. (?*nad*, *vrz*, *preku*) (M)
 ‘I put my hand **over** my eyes.’

To support the results presented in our analysis, it would be helpful to conduct a statistical investigation of the relationship of *vrz/vārhu* with other rival prepositions. The comparison of frequency of prepositions in different syntactic constructions should help reveal the factors influencing the choice of a particular preposition. Given that a rigorous statistical analysis was beyond the scope of this article, the findings of our analysis may serve as a foundation for future statistically based investigations.

[4] CONCLUDING REMARKS

In the above cognitive-based analysis of the prepositions *vrz* and *vārhu*, we have established the role of the functional element “affectedness” in the meaning of this spatial category. With the verticality dimension as part of this configuration, the category profiles not only a topological relation of attachment, but implies direction and impact. We adopt the view (held by other authors cited in this article) that spatial relations coded in prepositions are primary and that “[t]he functional element arises as a consequence of our daily interaction with the spatial configuration associated with the particular preposition” (Tyler & Evans 2004). Thus we assume that affectedness is a byproduct of directional movement in a force-dynamic pattern triggered by the frequent occurrence of these prepositions with a certain type of verbs. Affectedness has become their distinguishing feature, especially in the case of *vrz*. We argue that this preposition contains a functional component in all senses, which vary from “prominence” through “impact” to “covering.” Although “affectedness” prevails in the second sense, which is the most frequent and productive, it is also felt in the other two senses. All of these functional components trigger the creation of numerous extensions in the abstract domain. Furthermore, we have tried to uncover the interaction of the affectedness component and the superposition component in the conceptual structure of these prepositions. The analysis has led to the conclusion that dimensionality and contextual factors influence the prevalence of one or another component and subsequently determine the degree of affectedness.

The analysis has also focused on the polysemy of the prepositions *vrz/vārhu*. We have determined the meanings of these prepositions by positing the existence of dynamic and static pattern in their configurations, outlined in Section [2.11]. This enabled us to find associative links between different, seemingly unrelated meanings and demonstrate the structural character of the system lexicalized by these prepositions.

Finally, we have conducted two types of contrastive analysis: between the prepositions *vrz* and *vārhu* and between *vrz/vārhu* and the other prepositions of attached superposition. Whereas the aim of the first comparison was to delineate the functional zone of *vrz* versus *vārhu*, in the second comparison we isolated the

functional features that set *vrz/vārhu* apart from other semantically close prepositions.

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