

POLYSEMY OF THE BULGARIAN PREPOSITION *NA*

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This paper proposes a cognitive analysis of some of the meanings of the highly polysemous Bulgarian preposition *na*, applying the Principled Polysemy Approach developed by Evans and Tyler (2003). Stepping on Boyadzhiev's 1952 classification of the uses of *na*, we suggest organizing the various senses of *na* as a radial (conceptual) category (Lakoff 1987, Brugman, Lakoff 1988) with a prototypical sense (lexical concept). We argue that in addition to the spatio-geometric parameters the core spatial lexical concept of *na* includes also functional information from which non-spatial meanings such as „active state“ derive.

Key words: radial category, lexical concept, spatial and non-spatial meaning

1. Introduction

The purpose of this paper is to propose a cognitive semantic analysis of some of the senses of the most common and highly polysemantic Bulgarian preposition *na* (*на*). To do this, we have stepped on two strands of previous work. The first one is the studies of Bulgarian linguists such as Boyadzhiev (1952: 93) and Mincheva (1973: 93). Boyadzhiev seems to adopt primarily a monosemous view of the meaning of prepositions especially the preposition *na* in Bulgarian, while Mincheva writes that the primary meaning of *na* is spatial and the use of the preposition *na* with the Locative case in Old Bulgarian provides evidence towards this claim. However, she points out that there are other meanings, which are somewhat tenuously linked to the primary one. Only Andreychin (1944: 380) points out the metaphorical meaning of the preposition *na* in expressions such as *лежи ми на сърцето, дойде ми на ум*, etc.

The second strand is work in cognitive lexical semantics, pioneered by George Lakoff in the 1980s and subsequent refinements of the theory such as Tyler and Evan's (2003) Principled Polysemy Approach and Evans' (2009) Lexical Concepts and Cognitive Models (LCCM).

2. Problems with the monosemous view of meaning

Formal linguists and structuralists have long recognized the existence of polysemy but as emerging from monosemy: a single abstract meaning from which other senses are derived on the basis of context or pragmatic principles. The monosemous approach can, in principle, account for the various spatial senses of a preposition. However, prepositions also exhibit non-spatial meanings. Consider the example below:

(1) *Можеш да разчиташ на мен!*

While the meaning of *na* in (1) might be characterised as „psychological support“, it is difficult to see how a single abstract meaning can be the source of all the spatial senses, some of which will be discussed further in the paper, as well as the non-spatial „psychological support“ sense. This question has not been addressed by Bulgarian linguists such as Boyadzhiev since they do not make any claims as to language cognition and representation. However, Boyadzhiev’s comprehensive classification is lexico-semantic and provides a vast amount of linguistic data and in some cases it comes very close to what could be a cognitive linguistic semantic classification. Only within the class of the spatial (locative) relations he distinguishes 10 subclasses. All in all, Boyadzhiev identifies 38 uses of the preposition *na*.

3. Polysemy as a Conceptual Phenomenon

Cognitive lexical semantics assumes that lexical items (words) are conceptual categories with a particular structure referred to as **radial**. A word represents a conceptual category of distinct yet related meanings, with a central (prototypical) concept and the various category members are related to the prototype by convention. As such, word meanings are stored in the mental lexicon (semantic memory) as highly complex structured categories referred to as **senses** or **lexical concepts**. Radial categories are modelled in terms of a radiating lattice configuration as shown below in Fig. 1:

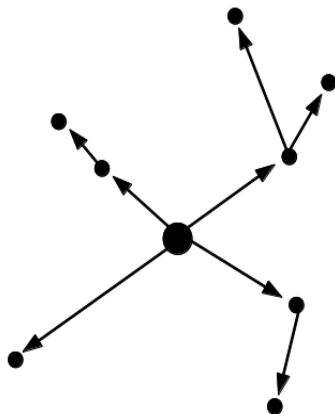


Fig. 1. A representation of a radial category

From the above approach to lexical semantics follows that **polysemy** is a conceptual phenomenon and it arises via the same general cognitive principles that structure non-linguistic categories. Less prototypical senses are derived from more prototypical (their position is reflected in terms of distance from the central sense) via cognitive mechanisms that facilitate meaning extension, including metaphor, metonymy and image schema transformations. Such an approach can account for the numerous non-spatial meanings of a preposition.

Central to such an account is the idea that the senses associated with the preposition are grounded in our spatial experience and relate to spatio-geometric properties such as dimension, axes or proximity. The spatial senses of *na* most probably would be judged to be more prototypical by native speakers. They are listed as primary senses by lexicographers and all three of the Bulgarian linguists mentioned above point out the primary spatial meaning of *na*.

If prepositions exhibit extensive polysemy, how can we identify the distinct meanings or **senses** as they are called in **cognitive lexical semantics**? In other words, how do we establish boundaries between senses as they are stored in semantic memory (the mental lexicon)? How are the various senses related to each other? How do the spatial relations encoded by the preposition *na* give rise to non-spatial meanings? Tyler and Evans (Tyler, Evans 2003) have suggested a methodology which addresses the above questions and we shall partly adopt it to analyze the Bulgarian data below.

We could argue that the prototypical spatio-geometric sense of *na* is an image schema of CONTACT. Fig. 2 represents the basic image schema for *na*. As the term suggests, an image schema is not just an abstract semantic principle, but should be understood as a mental picture which is more elementary than both concrete categories and abstract principles. It is a simple and basic cognitive structure which is derived from our everyday interaction with the world. It involves a schematic Trajector (TR), which is the entity to be located and thus is in focus. The TR is represented by the small circle. It is usually smaller and mobile. The other element in the configuration is the Landmark (LM) which serves as a reference point for orientation; it is usually bigger and stationary. The bold horizontal unbroken line in Fig. 2 represents the LM, which is the orientation point for locating the TR in space, in the case of *na* it is a horizontal surface¹. The fact that the TR touches the LM indicates that the spatial relation

¹ TR and LM are derived from Langacker's theory of Cognitive Grammar (Langacker 1987:231)

designated by *na* involves the relation of contact (or proximity) to the surface of a LM. The relationship between the TR and the LM also involves the downward force exerted by the TR and the relationship between the TR and the LM is oriented along the vertical axis with respect to the human canonical position. The horizontal dashed arrow illustrates the possibility of having a moving TR which usually involves concepts such as GOALS and PATHS.



Fig. 2. Central image schema for *na*

We can argue that the above schema underlies examples like
(2) *Книгата е на масата.*

However, there are two interpretations of what the central image schema of a preposition is. According to Lakoff's full specification approach the central image schema is highly schematic, lacking detail about the nature of the TR and LM. Tyler and Evans' Principled Polysemy Approach (Tyler, Evans, 2003: 51), however, introduces the notion of a **functional element** which relates to the central sense (now called lexical concept) in a semantic polysemy network and such a lexical concept is called a **proto-scene**. This position is a radical departure from Lakoff's central image schema.

We shall illustrate the idea with the preposition *na*. The central spatial lexical concept (sense unit) for the preposition *na* is directly grounded in a specific kind of recurring spatial scene which is instantiated in a sentence such as (2). This spatial scene relates the TR (book) and the LM (table) in a particular spatio-geometric configuration, which is the **proto-scene**. It involves the relation of CONTACT or proximity to the surface of a LM and the functional information about SUPPORT. According to Evans this information is also part of the proto-scene. In other words, proto-scenes include a functional element, reflecting the way in which proto-scenes are ordinarily used. That is language users typically employ proto-scenes in ways which draw upon the functional consequence of interacting with spatial scenes of certain kinds in humanly relevant ways. Thus, linguistic knowledge associated with proto-scenes appears to involve more than simply knowing the particular spatio-geometric properties encoded by a particular form. Here are two points that illustrate the above idea. The elementary sentence in (1) encodes an elementary locative arrangement but even that raises questions. How do we know that

the book is directly in contact with the table? Such a sentence will be felicitous even if the book is on top of another book which is lying on the table (Evans 2009: 219). In addition, there are „added constraints“ which apply to prepositions. For instance, in the expression

(3) *На море сме*

the relation implied is more specific than simple spatio-geometric relations i.e. the relation between the TR *we* and an area in space, the LM *sea*. Most probably there will be the implication that we spend time on the beach, do other activities that involve this particular TR and LM and generally have a good time. The point is that we rarely employ prepositions to describe simply spatio-geometric relationship. Spatio-geometric relations have **functional consequences**, consequences from how we interact with our physical environment in our daily lives.

Now we shall provide a short illustration of how some of the other senses of *na* can be analysed. To begin with, there are two other prepositions in Bulgarian which designate the spatial relation of contact: these are *по* (*no*) and *вархку* (*върху*). Yet, only *na* entails the functional consequence of the TR being supported or upheld by the LM. Therefore, in the linguistic content of *na* there is the geometric parameter Contact and the functional parameter Support and they are both encoded by the lexical concept CONTACT. Evidence for this comes from the possibility to apply the preposition *na* to situations in which the LM is a vertical rather than a horizontal surface as in

(4) *Картината е на стената*

(5) *На шапките си всички носят алени звездички*²

which means that the TR (picture, stars) is attached or affixed to the LM (wall, hats) by some means (glue, hook, pin, etc.). Such an image schema has been referred to as the rotated image schema (Navarro I Ferrando 1999: 149). It is illustrated in Fig. 3 below.



Fig. 3. Rotated image schema of *na*

² Most of the examples are from T. Boyadzhiev (Boyadzhiev 1952).

What is interesting is that Boyadzhiev (most probably intuitively) classified examples like these ones in a separate paragraph within his first group of spatial meanings of *na*. The Support parameter here comes via „attachment“ since we need something like a hook, or glue, etc. to hold the TR in place as the LM is not in its canonical orientation. Thus the above examples apply when there is both physical contact between the TR and the LM and the latter has the role of supporting the former especially in the canonical scenario when the LM is bigger than the TR.

More evidence for the claim that the functional parameter is also encoded in the lexical concept glossed CONTACT comes from the possibility to have felicitous sentences in which the LM is smaller than the TR as below:

(6) *Ненко се подпира на мотиката си пред кладенеца...*

(7) *Той се подпира на грубо одялана тояга.*

What is important here again is that there is both physical contact between the TR and the LM and the latter supports the former (with the additional help of the hand and a balancing force).

There is yet another spatial scene involving CONTACT and SUPPORT is encoded by the examples below:

(8) *пръстен на пръста, колан на кръста.*

This can be referred to as the axial image schema (Navarro I Ferrando 1999: 150) although in Bulgarian it is very often instantiated by the preposition *okolo*.

One more set of examples will suffice. Consider the relations illustrated in the sentences below:

(9) *Смехът на Минка беше на устата ѝ.*

(10) *Усмивка цъфне на лицето ѝ.*

The image schema can be identified as the TR is part of the LM, more specifically the TR is understood as part of the external side of something.

Consider and the other possibility where part of the TR is the LM as in

(11) *Ходя на 4 крака/на пръсти*

Similarly to English (Evans, Chilton 2010: 241), in Bulgarian there are other distinct „support“ lexical concepts which have derived from the Support parameter as illustrated by the following examples:

Subsistence support

(12) *Малко са ми две деца и майка на главата, че да храня и мъж без работа.*

(13) *Трима души са ми на ръцете.*

Drug dependency

(14) *На ханчета ли си, или на инсулин?*

Psychological support

(15) *Можеш да разчиташ на мен.*

Rational/epistemic support

(16) *На какво основание?*

In addition, there seems to be yet another „abstract“ meaning of the preposition *na*, the so called ACTIVE STATE lexical concept (Evans, Chilton 2010: 242). It derives not from the support parameter but from another functional category which can be called „functionality“ or „activity“. In many spatial scenes when the TR comes in contact with a particular surface, it becomes functional. Here are some examples from Boyadzhiev’s classification:

(17) *на служба, на работа, на война, на стража, на пост, на изпит, на свобода, на кино, на червено, на сухо*

as opposed to

(18) *в затвора, в киното, в службата*

Apparently, the ACTIVE STATE lexical concept associated with *na* relates to adjectives or nouns of action which involve a particular state which can be construed as „active“. Such states seem to hold for a prescribed or limited period of time. Although such examples of *na* are scattered among the various classes suggested by Boyadzhiev, there are two groups which come very close to the above interpretation of the ACTIVE STATE lexical concept. Unlike Bulgarian, such states are more often conceptualized in English by the preposition *at*.

4. Conclusion

Although Boyadzhiev claims that his classification of the uses of the preposition *na* is syntactic since he studies the preposition *na* as part of a Prepositional Phrase (PP) in a sentential context thus involving the Verb Phrase (VP), at several points it overlaps with a possible cognitive semantic analysis which shows that the cognitive linguistic approach addresses the intuitions of serious traditional linguists. As far as the theory goes, Evans (Evans, Chilton 2010) with his latest refinement of the Principled Polysemy Approach has managed to show that we do not always need conceptual metaphors to explain abstract i.e. non-spatial senses of prepositions. Abstract sense such as „state“ can be derived from the functional element in the lexical concepts.

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