A Category with Multiple Centers: The Case of the Ukrainian Verbal Prefix *Za-*

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Abstract. The present study aims to reconstruct the structure of the Ukrainian verbal prefix *za-* as a category. Cognitive modeling and the network approach are used to this end, similarly to other works within the Cognitive Linguistics paradigm (Janda, 1985; 1986), (Sokolova & Endresen, 2017), (Tabakowska, 2003). The modeling phase is preceded by an analysis of a large sample of Ukrainian *za-* verbs, which are grouped into semantic blocks based on shared semantic content. These blocks are then mapped onto a network of conceptual schemas, which includes such prominent centers as CURVE and APPEAR. The latter and several other nodes are shown to be modifications of CURVE with the links between them constituting family resemblances (Wittgenstein, 2009). The conceptual schema APPEAR is actively used by native speakers to coin new inchoative *za-* verbs in Ukrainian and several Slavic languages, which means that conscious (Type 2) categorization (Starko, 2014) is employed. This and other considerations suggest that APPEAR is a psychologically real conceptual entity in its own right. Thus, an argument is made in favor of a bifocal, rather than unicentric, topology of the *za-* network, which is contrary to the popular assumption about the existence of a single central element (prototype) from which all other network nodes are derived in what is called "radial structure" or "radical category" (Lakoff, 1987). The a priori assumption in the study of categories should be that they may be unicentric or pluricentric.

Keywords: *categorization, category structure, radial category, prototype, verbal prefix, Ukrainian, cognitive semantics.*

Старко Василь. Категорія з множинними центрами: український дієслівний префікс *за-*.
Анотація. Це дослідження має на меті реконструкцію структури українського дієслівного префікса *за-* як категорії. Для цього застосовано когнітивне моделювання й мережевий підхід подібно до того, як це зроблено в інших роботах, виконаних у рамах парадигми когнітивної лінгвістики (Janda 1985; 1986), (Sokolova & Endresen, 2017), (Tabakowska, 2003). Етапу моделювання передує аналіз великої вибірки українських дієслів із префіксом *за-*, які було згруповано в семантичні блоки на основі спільного семантичного вмісту. Далі ці блоки накладено на мережу концептуальних схем, серед яких є такі помітні центри, як CURVE та APPEAR. Показано, що APPEAR та ще кілька вузлів є модифікаціями схеми CURVE, а зв'язки між ними становлять родинні подібності (Wittgenstein, 2009). Концептуальною схемою APPEAR активно послуговуються носії української та кількох інших слов'янських мов, створюючи нові інхоативні дієслова з префіксом *за-*. Це означає, що застосовується свідома категоризація (Типу 2) (Starko, 2014). Це та інші міркування підводять до тези, що APPEAR – сама собою психологічно реальна концептуальна одиниця. Відтак наведено аргументи на користь біфокальної, а не уніцентричної, топології мережі префікса *за-*, що суперечить поширеному припущенню про існування одного центрального елемента (прототипа), від якого виводяться всі

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інші вузли мережі, які утворюють так звану «радіальну структуру» або «радіальну категорію» (Lakoff, 1987). Апріорне припущення в дослідженні категорій має полягати в тому, що категорії можуть бути уніцентричними або поліцентричними.

Ключові слова: *категоризація, структура категорії, радіальна категорія, прототип, дієслівний префікс, українська мова, когнітивна семантика.*

Introduction

The verbal prefix *za-* has one of the most ramified configurations of meanings in various Slavic languages, which is a challenge to linguistic analysis. Over the years, it has proven to be an attractive testing ground for different approaches to the study of the semantics of verbal prefixes. The Ukrainian verbal prefix *za-* has been studied in detail following the checklist approach (Ilyin, 1953). Its strength lies in the detailed description of specific usage, while its overall weakness is the difficulty of uniting meanings into broader groups and a lack of motivation links between them. While more attention is paid to the perceptual, physical features, mental features, which serve as motivation links, tend to be ignored. Furthermore, some uses of a prefix under study resist being grouped with the already established groups and are simply listed as 'miscellaneous'. The results produced by the checklist approach can be used as inputs for a cognitive analysis, even though the groupings will not necessarily be the same.

Svitlana Sokolova (2003) followed the invariant-based approach to describe the semantics of the Ukrainian verbal prefix *za-*. This approach is aimed at discovering an unchangeable meaning common to all uses of a given prefix. While helpful in achieving a sense of unity, it often yields highly abstract meaning, which may be too far removed from real usage. Sokolova (2003) posits three meanings for *za-*: 1) movement towards a certain point; 2) inchoative; 3) resultative (with a number of submeanings and modifications).

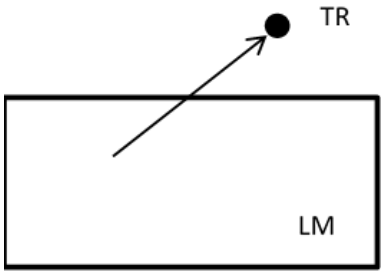
The network approach gained popularity in semantics with the advent of Cognitive Linguistics. The semantics of a prefix is modelled here as a network of nodes called 'semantic blocks'. These are postulated as psychologically real entities that can (but do not have to be) united by a common general idea, while small variation is possible within the blocks due to contextual modifications. The cognitive approach has an advantage in that it allows researchers to not only establish motivation links between various meanings and uses of an entity in question but also to present their general structure as a network. This is achieved by way of reconstructing the internal structure of the category. Another advantage is the availability of tools to explain fine semantic differences that are based on mental, rather than perceptual features, such as the differences between quasi-synonymous Ukrainian verbs with different suffixes – *zachekaty* and *pochekaty* (both meaning 'to wait a little'). A series of transformations (e.g., metaphoric extensions) are established as limitations on the extension of categories. These transformations permit linking novel uses to "basic" components of the category, which removes the

need for multiplying senses and subsenses, something that is the scourge of the traditional checklist approach.

In Cognitive Linguistics, many natural language categories are reconstructed as having a radial structure. This idea of "radial categories" was introduced by George Lakoff along the following lines: "A radial structure is one where there is a central case and conventionalized variations on it which cannot be predicted by general rules" (Lakoff, 1987, p. 84). This formulation suggests that there is a single central case in the category that motivates all noncentral variations. Cognitive linguistic studies of prefixal semantics typically follow this cue and look for a single central component, such as an image-schema.

In her seminal work on Slavic verbal prefixes from the perspective of Cognitive Linguistics (Janda 1985, 1986), Laura Janda develops the ideas of George Lakoff (1987) by treating each prefix as a radial category. She posits that a category relies on one prototype as its central, organizing element of a network of category members: "the prototype organizes the category, all the members of which must make reference to it" (Janda, 1986, p. 216). The category members are connected to the prototype via links, which are transformations of the basic configuration. Janda postulates five schematic configurations of the landmark and the trajectory, and each of the configurations refers to one or more meanings. The configuration below (Fig. 1) is the presumed prototype from which four more configurations are obtained via transformations. Together they constitute the network structure of the Russian *za-* prefix. The prototypical configuration refers to the senses 'deflection, 'fix', 'excess', 'inchoative', and 'exchange' in Janda's reconstruction. Each of these meanings is typically illustrated by a number of Russian *za-* verbs.

Figure 1
The prototypical configuration 'Deflection' in Janda's reconstruction.



What emerges as a result is essentially a two-level reconstruction: one level is the grouping into broad meanings such as deviation (lexical semantic level), while the other one is the conceptual level populated by a network of interlinked image schemas converging on one basic configuration – the prototype.

Since the mid-1980s, a number of other Cognitive Linguistics studies of prefixal semantics have been carried out. Remarkably, researchers have focused on the verbal prefix *za-* in different Slavic languages (Nedelcheva, 2016; Sokolova & Endresen, 2017; Tabakowska, 2003; Zaliznyak, 2006) but not in Ukrainian so far. In general,

detailed studies of the structure of Ukrainian categories are few and far between, and Zhuykova et al. (2020) is a notable recent exception here.

The present paper is focused on the verbal prefix *za-* in Ukrainian from a Cognitive Linguistics perspective. It builds on previous research into the verbal prefix *za-* in Slavic languages and various attempts to describe the semantics of the Ukrainian prefix *za-*. Rather than providing an exhaustive account of the entire network and discussing its realization in the semantics of specific Ukrainian *za-* verbs, the objective is to reconstruct the broad configuration of this network with an emphasis on its center(s).

Method

The semantics of the verbal prefix *za-* is fundamentally spatial. However, exactly how it is linked with all the non-spatial meanings of the prefix is far from trivial. The connections between the "basic" spatial semantics of linguistics units, such as prefixes or prepositions, and their temporal and other meanings is not straightforward (Haspelmath, 1997). They can be bridged by intermediate, fairly general conceptual features which are, on the one hand, meaningfully imposed on the spatial relations and, on the other, serve as the conceptual foundation for the meanings of specific linguistic units (Rakhilina & Plungyan, 2014). The above suggests that modeling the meaning of such a prefix as *za-* is best undertaken at the level of conceptual semantics using the network approach.

The procedure consists of three stages. At the first, largely data-driven stage, the various meanings and uses of *za-* verbs are grouped into semantic blocks. The second stage is the reconstruction of conceptual schemas that underlie semantic blocks. The specific senses of a linguistic units are viewed as realizations of its conceptual schema. The schema itself can take different forms, depending on the type of lexis under consideration. The conceptual schema of verbal prefixes may include a certain spatial image (with or without a real "picture") on which a conceptual structure is imposed. Different parts of this structure can be profiled giving rise to real specific senses (Zaliznyak, 2006, p. 41).

The third stage is aimed at the cognitive modeling of the categorial network. The key question here is how the semantic blocks identified at the previous stage are arranged in a network. The main research question for the present study is whether the Ukrainian verbal prefix *za-* constitutes a radial category in the sense described above, i.e., a category with one center (prototype) from which various extension are projected.

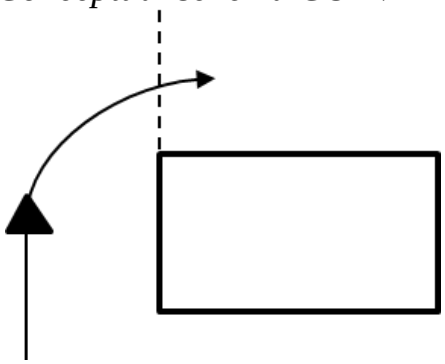
In line with the established tradition, conceptual features are designated by English words that point to their semantic content. Importantly, these designations need to be viewed in conjunction with the underlying aspect of the conceptual schema. For example, the feature CURVE marks not just any curved trajectory but one that is loosely based on a particular aspect of the conceptual schema (see Fig. 2 below).

Study

The exposition that follows is based on an analysis of a large sample of Ukrainian *za-* verbs during which several semantic blocks have presented themselves as clear cases for inclusion in the network. For reasons of space, the results are presented in the form of semantic blocks with just a few illustrative examples.

A key component of the *za-* network is the conceptual schema that refers to the basic situation of spatial movement illustrated in Fig. 2. An object (trajector) moves along a curved trajectory (path) which crosses an imaginary line (dashed line in the figure) that is a continuation of the spatial boundary of an immovable object (landmark). The path takes the object to the space behind the landmark (from the viewpoint of the observer). As it moves along the path, the object crosses the imaginary line and then disappears from view. I will call this conceptual schema CURVE.

Figure 2
Conceptual schema CURVE



Different parts of the conceptual schema CURVE can be profiled and serve as the basis of specific lexical meanings. One profiling highlights the movement itself along a curved trajectory associated with the semantics of verbs of spatial movement, e.g., *zaity za budynok* ‘to go around a building’. The trajectory may be curved in the vertical plane, e.g., *zaikhaty za horb* ‘to travel over a hill’, or in multiple planes, e.g., *zamakhnutysia sokyroiu* ‘to swing an axe’. Movement along a curved trajectory is also the key component in the semantics of verbs expressing the idea of wrapping, e.g., *zahornuty v papir* ‘to wrap in paper’. The idea of a curved trajectory is also present in the meanings of verbs denoting bending, e.g., *zahynaty paltsi* ‘to curl one’s fingers’ and *zalamuvaty ruky* ‘to wring one’s hands’.

For an outside observer, the trajector moving along a curved trajectory behind the landmark gradually disappears from view. More precisely, the landmark is in full view to begin with and then the trajector moves between the observer and the landmark, gradually eclipsing the landmark from the field of vision. In the absence of contact between the trajector and the landmark, it is the situation of eclipsing (*zastupyty svitlo* ‘to block the light’). When contact is present, however, the scene is conceptualized as covering (*zastelyty stil skatertynoiu* ‘to cover the table with a tablecloth’). The corresponding conceptual features are termed ECLIPSE and

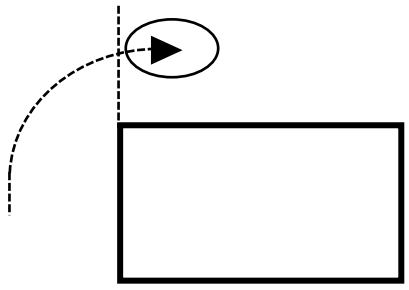
COVER. The former can be illustrated with such verbs as *zatiahnuty vikto shtoroiu* 'to pull a curtain over a window'; the highly frequent *zakryvaty* 'to close; *metaphorically* to make inaccessible for interaction'; *zayidaty* 'to eat something after something else (such as sweet after bitter)' (the "eclipse" of a taste). There are at least two different types of situations underpinned by the COVER schema:

1) gradual distribution of something (often a mass or a liquid) over the surface of an object, e.g., *zasypaty snihom* 'to cover with snow', *zabilyty (napys)* 'to paint over (an inscription) with white paint, etc.';

2) gradual filling, e.g., *zalyvaty yamu vodoiu* 'to fill a hole with water' (as the water level rises, it reaches the rims and thus "covers" the hole), *zapovnyty mistkist* 'to fill up a container'.

Looking again at the CURVE scheme, we can see that, as the trajector crosses the dashed line extending from the side of the landmark, it moves to a position behind the landmark. This kind of motion is expressed by *za-* verbs in combination with the preposition *za*, as in the examples *zaity za budynok* and *zaikhaty za horb* above. When the location of the trajector behind the landmark is profiled, this results in the conceptual schema BEHIND (Fig. 3), which is the foundation of the preposition *za* in its spatial meaning. In fact, from the perspective of prepositional semantics, this schema may be considered basic and the verbal CURVE schema its extension (with the added motion). Either way, the key idea of the trajectory being located behind is the same.

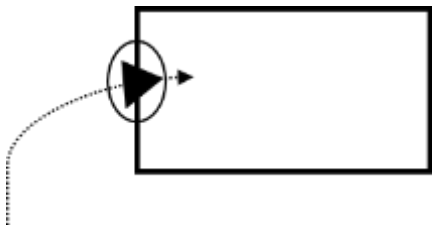
Figure 3
Conceptual schema BEHIND with the location behind profiled



By extension, the location "behind" is conceptualized as exceeding a certain limit and being outside the norm or the desired state of affairs. This conceptual feature, termed EXCESS, manifests itself in adjectives and adverbs with the prefix *za-* (e.g., *zavysokyi* 'too high', *zasylnyi* 'too strong', *zanadto* 'too much', and *zadaleko* 'too far') and is also prominent in the meaning of verbs derived from such adjectives, e.g., *zavyshchuvaty* 'to raise too high' and *zanyzhuvaty* 'to set too low, to understate'.

When the crossing of the boundary is profiled in the CURVE schema and the landmark is conceptualized as a container which the trajectory enters, this yields the INTO schema (Fig. 4). The element of moving along a curved trajectory is in the background or absent altogether.

Figure 4
Conceptual schema INTO with boundary crossing profiled

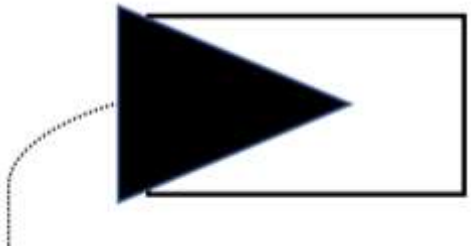


This profile underlies the semantics of verbs of motion used in conjunction with the prepositions *v* 'in, into' and *vseredynu* 'inside', e.g., *zaity* 'to go in, enter', *zaikhaty* 'to drive in', *zaletity* 'to fly in', etc. When the idea of a curved trajectory is absent, these verbs become synonymous with their *v-* and *u-* counterparts, such as *vviity, uviity* 'to go in, enter',

The CURVE and INTO schemas are concurrently present in the semantics of verbs referring to situations in which the trajector deviates from its path and makes a small detour. For example, *zaity v kramnytsiu* (*dorohoiu na robotu*) 'to stop by a shop (on the way to work)', *zabihty na kavu do druha* 'to drop by a friend for a coffee'. Janda (1985) and Zaliznyak (2006) choose to interpret these cases as deviations from a straight path. However, a deviation does not describe the situation fully as it also contains an element of entering a building or other spatial entity. It may be argued that this element of meaning is expressed not by the verb itself but by the dependent construction as in the examples above. However, the *za-* verbs make their contribution as well by pointing to such features as the curved trajectory and crossing a boundary. In contrast, a pure case of deviation is found in the meaning of the Ukrainian verbal prefix *z-* that profiles the point of departure, e.g., *z'ikhaty* (*z dorohy*) 'to turn off (the road)', while Ukrainian motion verbs with *za-* always refer to a movement directed at or into an object. Thus, the CURVE+INTO combination more accurately describes the semantics of these verbs than mere deviation.

A further modification of the conceptual schema INTO leads to the FIX schema (Fig. 5) where the trajector moves across a boundary until it becomes firmly lodged in the landmark and immobile in its final state.

Figure 5
Conceptual schema FIX



The expanded image of the trajector in Fig. 5 is designed to point to the idea of its gradual fixation in the landmark. Here are just a few examples that illustrate FIX: *zahnaty* (*skalku pid nihot*) 'to drive (a splinter under a nail)', *zaryvatysia* (*v grunt*) 'to bury (oneself in the ground)', *zabyty* (*tsviakh u doshku*) 'to hammer (a nail into a plank)'. In the last example, the movement of the tool held in hand follows an explicitly curved trajectory. This element is found in the semantics of several verbs that refer to inflicting physical harm or killing a living being in a specified manner, e.g., *zarubaty* 'to kill with an axe or saber', *zashmahaty* (*do neprytonmoho stanu*) 'to flog smb. (into an unconscious state)'. The feature FIX correlates here with a passive state–death or loss of mobility and strength.

A number of FIX verbs refer to process that are unidirectional and sometimes irreversible (or at least hard to reverse) and the final state can be described as that of lower energy (passive, inactive, permanent). This aligns with the idea of the trajector being lodged into a landmark. One subgroup includes verbs referring to physical processes, especially numerous technical terms, e.g., *zahustity* 'to become condensed, to thicken', *zaspyrtuvaty* 'to preserve in alcohol', and *zakonservuvaty* 'to preserve, to can'. The other subgroup describes processes occurring with living beings, e.g., *zahipnotyzuvaty* 'to hypnotize', *zakhvority* 'to become sick', and *zakokhatysia* 'to fall in love'.

The fixation of an object may occur in the abstract domain where the spatial idea of a curved trajectory largely disappears: *zapysaty* 'to write down (i.e., to fix in writing)', *zapamiataty* 'to memorize (to fix in memory)', *zavvazhyty* 'to perceive (i.e., to fix in one's field of attention, either visually or mentally)', etc.

Let us now consider the mechanism underlying the semantics of the reflexive verb *zapratsiuvatysia* 'to have worked too long' and a number of similar verbs with the same structure *za-*+verbal stem+*sia*, e.g., *zahratysia* 'to have played too long', *zachekatysia* 'to have waited too long'. All of these verbs refer to a situation when a person engages in some activity for a period of time and then realizes that he or she has been doing it for too long. To understand the conceptual underpinnings of these verbs, we need to look again at the spatial scene in Figure 2. The trajector crosses the imaginary line and ends up in a space behind the landmark where it cannot be seen by the observer. The curved trajectory correlates with the gradual character of the process, while line crossing evokes the idea of transgressing a boundary. Movement along a trajectory that leads to a location behind the landmark is interpreted as an unfolding process that crosses the limit of what is reasonable or desired. The conceptual schemes that contribute to the semantics of verbs in this group are as follows: CURVE (the process is gradual), INTO (crossing a boundary and entering a state conceptualized as a container), and BEHIND (through the conceptual feature EXCESS). Many other *za-* verbs rely on the same conceptualization, e.g., *zakhvalyty* 'to praise smb. too much', *zahoduvaty* 'to overfeed', and *zamuchyty* 'to tire out'. This group of verbs illustrates an important characteristic of a categorial network–"multiple motivation" per Janda (1986, p. 213). In other words, surface-level lexical semantics can draw from multiple conceptual schemas, which become co-activated rather than existing in isolation within the categorial network.

Finally, Ukrainian has hundreds of *za-* verbs with the inchoative meaning. It is the most frequent meaning of the verbal prefix *za-* according to Ilyin (Ilyin, 1953) and remains highly productive (Sokolova 2003), especially with onomatopoeic verbs (Karpilovska, 1990). Most verbs in this large group denote situations of physical perception, either visual or auditory. In these situations, the action suddenly begins and then persists. The perceptual element may play a central and dominant role in their semantics, e.g., *zability* 'to begin to appear or be white', *zazvuchaty* 'to begin to sound', etc. In other cases, the verb describes an action or process that is perceived but the perceptual component is peripheral, e.g., *zabihaty* 'to start running (to and fro)', *zakuryty* 'to start smoking', etc. In verbs with more abstract meaning, the perceptual element is lost and only the conceptual feature BEGIN remains, e.g., *zahordytysia* 'to become proud', *zasumnivatysia* 'to begin to have doubts', and so on.

In line with the adopted approach when spatial scenes give rise to other meanings of the prefix, the objective here is to find a spatial configuration with the matching physical features that would give rise to the inchoative meaning. The answer is again supplied by the schema in Figure 2. This spatial scene is construed from the vantage point of an observer located to the right of the landmark. Initially, the landmark blocks the trajector from the observer's view. However, as the moving trajector turns the corner of the landmark is instantaneously comes into the field of view and remains there for an extended period. What is profiled in this APPEAR schema is the trajector emerging from behind the landmark. The second important feature (persistent presence) is reflected in the semantic component of duration: inchoative *za-* verbs denote processes that begin suddenly and persist over time. In abstract verbs, the visual element itself is lost, but the idea of a sudden beginning and then persistence through time is preserved.

To appreciate the contribution of the inchoative meaning to the overall picture, the wordlist contained in VESUM (Rysin & Starko, 2022) has been subjected to quantitative analysis. With over 416,000 entries, VESUM is one of the largest up-to-date lexicons of Ukrainian. It includes a little over 4,000 *za-* verbs, with perfective and imperfective forms listed as separate lemmas for reasons of conjugation. We have established that one-fifth of them are inchoative verbs, meaning perfective or imperfective lemmas that are predominantly used in this sense. This calculation excludes polysemous verbs with a non-dominant inchoative meaning. Over 85% of thus identified inchoative verbs contain a more or less pronounced perceptual component (*zablyshchaty* 'to begin to shine', *zabriazkaty* 'to begin to rattle', *zashrebty* 'to begin to scratch', *zatsvisty* 'to begin to bloom', and many others), while the rest are verbs of sensation (*заболіти* 'to begin to ache', *завважити* 'to observe, to notice'), and abstract verbs (*zatsariuvaty* 'to begin to rule as a king', *zaboiatysia* 'to begin to fear', *zasviatkuvaty* 'to begin to celebrate'). Thus, a large group of Ukrainian *za-* verbs have inchoative meaning, and this group is overwhelmingly dominated by perceptual semantics.

Thus, we have established that the conceptual schema CURVE gives rise, by way of profiling and re-construal from a different vantage point, to other schemas (ECLIPSE, COVER, BEHIND, INTO, FIX, and APPEAR) that form the conceptual

foundation for the semantics of a large number of Ukrainian *za-* verbs that constitute the main semantic blocks. In some cases, specific prefixal meaning is motivated by multiple conceptual schemas at once.

Results and Discussion

The best place to start the discussion of obtained results is with the conceptual schema presented last. The inchoative meaning of the verbal prefix *za-* is found in all groups of Slavic languages with varying degrees of productivity (Mazurkiewicz-Sułkowska, 2005). Despite being readily recognized by linguists of different persuasions and expressed in thousands of verbs, this meaning has generally presented serious challenges to scholars attempting to incorporate it into the reconstructed categorial network of *za-*. Janda interprets is as a version of the basic conceptual scheme (deflection) where there is deviation from a basic state in which the agent has zero activity (Janda, 1985). Zaliznyak explains it away by claiming that it is "easy to show" how this feature is derived from the feature IN (Zaliznyak, 2006, p. 311). Evidently, she considers this to be a trivial case (it is not). Tabakowska posits this meaning as an abstract extension from crossing the boundary: "The notion of a passable borderline easily extends into an abstract boundary separating non-being from being. More specifically, the passage from the former to the latter is instantiated as a passage from nonaction to action" (Tabakowska, 2003, p. 168). These reconstructions involve highly abstract ideas of activity/inactivity, being/non-being, while many or most inchoative *za-* verbs refer to situations of physical perception. Moreover, crossing the boundary is generally associated in *za-* verbs with gradual passage to a more passive state, while inchoative verbs with this prefix describe quite the opposite: a sudden commencement of a process or action in the form of a transition to a more active state. For these reasons, a re-construal from a different vantage point (schema APPEAR described above) is a more consistent and fitting model for the inchoative meaning as it preserves the alignment between the spatial scene and the derived meaning. However, the divergence of opinions in this case among scholars pursuing largely the same approach to semantic description is notable here.

It is worthwhile to look at how researchers have reconstructed the categorial network of *za-* in Slavic languages. As mentioned above, Janda (1985, 1986) posits one prototypical conceptual schema (Deflection) for the Russian *za-* from which others are derived. Tabakowska (2003) uses network analysis to reconstruct the semantic structure of the Polish verbal prefix *za-* and shows that it mirrors the organization of meaning of the corresponding preposition *za*. She posits the existence of one "category-central" meaning of 'going round' (such as bending one object around another one) which motivates other meanings that together constitute a network. Zaliznyak postulates one very complex spatial idea for the Russian prefix *za-* from which all meanings are supposedly derived. This idea includes multiple elements and appear to be composite image rather than a holistic spatial scene: "motion upwards and away from the observer; then deflection; then interaction with some abstract object; the trajectory continues

'behind' it and can be extended 'inside' and farther, 'grasping' its edge" (Zaliznyak, 2006, p. 311). Sokolova and Endresen (2017, pp. 243–244) posit a "double" prototype consisting of two blocks COVER/BEHIND for the Russian prefix *za-*. Their idea is that the same image schema can be construed in two different ways, either to profile the idea of covering, as in Rus. *zakrasit'* 'paint over', or that of being behind some object, as in *zabezhat* 'run around (smth.)'. Svetlana Nedelcheva (2016) reconstructs the structure of the verbal prefix *za-* in Bulgarian as a network of semantic blocks. In contrast to other studies, she proposes that semantic blocks in its network form two groups: one has to do with crossing a boundary, while the other is about fixation. In her reconstruction, each group has a central element; the two centers are linked, thus forming a two-center configuration.

What is remarkable about these studies is that scholars working with related, but distinct, languages and being guided by different theoretical concepts (checklist approach vs. network approach) single out remarkably similar semantic blocks for the verbal prefix *za-*. A detailed comparison is outside of the scope of this paper, but the overlap of proposed conceptual schemas and features can be seen even from the above review. Where they differ, however, is the general topology of the reconstructed network. In line with the theory of radial categories, some scholars posit one central element (prototype) from which links extend to the entire network. However, a "double" prototype has also been suggested, and a two-center arrangement proposed. In these two cases, the linguists, who are native speakers of the language under study, have departed from the one-prototype-per-category dictum and proposed configurations that they feel better match the distribution of semantic content in the structure of the verbal prefix *za-* as a category.

As has been shown above regarding the Ukrainian verbal prefix *za-*, several conceptual schemas can be derived from the conceptual schema CURVE to explain the conceptual underpinning of the meaning of many (if not most) Ukrainian *za-* verbs. Does it mean that CURVE is the prototype and the Ukrainian prefix *za-* forms a radial network? There are strong arguments against this conclusion, and all of them revolve around the APPEAR schema. This construal is vastly different from all other conceptual schemas considered so far and is only weakly linked to them as evidence by the difficulties of reconstructing this connection. A number of researchers representing various linguistic theories and approaches unanimously single out the inchoative meaning of *za-* verbs but strongly disagree on precisely what underpins it conceptually despite largely agreeing on other semantic blocks. In addition to thousands of existing inchoative *za-* verbs, new ones continue to be coined in various Slavic languages. Creation of new words with a given meaning is an instance of Type 2 categorization (Starko, 2014), which requires conscious operations with categorial knowledge, in this case the APPEAR schema. Thus, APPEAR is highly frequent, productive, accessible to conscious manipulation, and weakly linked to other nodes in the *za-* network. This combination makes it psychologically real for speakers on its own rather than as an extension of the CURVE or some other node within the network. If the objective is to reconstruct psychologically real conceptual structures, preference must be given to a configuration in which CURVE and APPEAR

are two prominent nodes in a network with only a tentative link between them. The same may also be true of the *za-* networks in other Slavic languages, such as Polish and Russian, but more research is needed along this line.

A remark is in order about the relationships between the schemas in the *za-* network. They are very similar to each other, differing only in a specific profile or vantage point. The relationships between them are nothing else than family resemblances, a concept first introduced by Ludwig Wittgenstein (Wittgenstein, 2009) and later picked up and developed in cognitive psychology (Rosch & Mervis, 1975) and Cognitive Linguistics (Lakoff, 1987). This notion captures the psychologically real fact that various *za-* verbs share some semantic features. For an average speaker, the directionality of links between distinct semantic blocks is most likely non-existent or opaque, while semantic commonalities and overlaps are perceived quite clearly.

Conclusions

The structure of the Ukrainian verbal prefix *za-* as a category has been reconstructed as a network in which conceptual schemas are the nodes. The following schemas have been identified: CURVE, ECLIPSE, COVER, BEHIND, INTO, FIX, and APPEAR. While the list is not necessarily exhaustive, it covers the major groupings (semantic blocks) of Ukrainian *za-* verbs. These schemas are linked by commonalities that are best described as family resemblances, while they differ in profiling and construal. It has been shown that CURVE and APPEAR are two prominent centers within the network connected by only a tentative link. Thus, the structure of the Ukrainian verbal prefix *za-* is pluricentric, more precisely bifocal.

On a more general level, a network consisting of conceptual schemas does not necessarily converge on one center–one prototype, one "basic" conceptual schema, one prototypical scenario, or some other single central element. The assumption that there should be just one such center may bias the entire enterprise of category reconstruction. What should be assumed a priori is the existence of one or more centers, i.e., one or more local foci around which networks of category members are formed. A Cognitive Linguistics analysis of a given language unit needs to be undertaken to establish whether a unicentric or pluricentric model best describes and explains linguistic data. With this adjustment in mind, the approach aimed at reconstructing conceptual schemas is a productive way of analyzing the structure of categories.

Further research is needed to see whether similar configurations with multiple centers are found in the structure of prefixes and other linguistic units in Ukrainian and other Slavic languages.

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