

Intrinsic Conceptualizations of Space, Time, and Abstraction: How a Particular Prepositional Phrase Demarcated by a Mother Tongue Hinders the Second Language Acquisition

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Abstract

In the process of second language acquisition not only fluency, but also, or even more importantly, accuracy of speaking should be given more attention. Within a wide spectrum of factors which aim at proficiency in speaking foreign language, utterances which are produced in accordance with syntactical rules and proper collocations foster gaining a coherent, cohesive, and natural character of a communicative act. This article has elaborated on the valency and potential of English and Polish prepositions in terms of their various grammatical and semantic functions. In a figurative sense, prepositions assist other nexus-creating parts of speech and optimize the destination of a given linguistic unit. Importantly, while perceiving the surrounding area visually, prepositions also support a verbal expression of the reality. Thus, the subject matter of this paper is to examine: a) how prepositions may be analysed semantically, b) in what channels the message they carry may be encoded, and c) how a particular lexicon is mentally organized in cognitive domains and then remodeled by non-native speakers.

Keywords: prepositional phrases, an intuitive choice of a preposition, perception of time and space, configurations of abstract notions, congruous collocational schemas, divergence in thinking

Abstrakt

Zagadnienia związane z problematyką nauki języka obcego ukierunkowane są nie tylko na płynność wypowiedzi, ale również, lub przede wszystkim, na poprawność stylistyczno-gramatyczną. Wśród wielu czynników wpływających na osiągnięcie zaawansowanego i świadomego posługiwania się językiem obcym, jedynie wypowiedzi zgodne ze składnią danego systemu językowego oraz poprawne kolokacje sprzyjają osiągnięciu spójności, zwięzłości i naturalności. Niniejszy artykuł przedstawia wszechstronność oraz potencjał angielskich i polskich przyimków pod względem ich różnorodnych funkcji, zarówno gramatycznych, jak i semantycznych. Przyimki, które w pewnym sensie towarzyszą innym częściom mowy, tworzą równocześnie stabilne ogniwa z sąsiadującymi elementami i determinują ich użycie. Przyimki dodatkowo wspierają użytkowników danego języka w opisywaniu otaczającej ich rzeczywistości, odbieranej najczęściej za pośrednictwem zmysłu wzroku. Celem niniejszej pracy jest analiza przyimków przez pryzmat semantyki, zbadanie ustalonych konfiguracji szyfrowanych za pomocą przyimków oraz ustalenie, w jaki sposób leksykon danego systemu językowego jest odtwarzany przez obcokrajowców na płaszczyźnie domen kognitywnych.

Słowa kluczowe: wyrażenia przyimkowe, intuicyjny dobór przyimka, percepcja czasu i przestrzeni, kompozycje abstrakcyjnych pojęć, zgodność schematów kolokacji, dywergencja w sposobie myślenia

The ways in which space and time are conceptualized

Undoubtedly, humans perceive gravitation or temperature at comparable levels via the sensory channels. However, a duly selected set of notions such as space or time may be experienced differently in terms of subjective or introspective aspects (Evans and Green 2006, 64–65). Importantly, these various perceptions seem to derive from diverse speculations upon spatial and temporal visions. Thus, this section will amplify the concepts of space and time throughout the recent centuries and attempt to explain how a particular attitude towards time and space may echo across a language system.

Historically, the most influential period which abounded with flourishing ideas and altered a conventional way of thinking took place in the 17th century along with the

development of analytic philosophy (van Fraassen 1970, 27–28). Two major figures, i.e. Newton and Leibniz, presented their revelatory concepts which remained in a polemic with each other. After departing from an earlier traditional view that time should be associated with motion, Newton hypothesizes that time and space are characterized by their absolute inner nature. Consequently, time is therefore allowed to elapse evenly and independently regardless of any external factor (29–30). In contrast to the Newton's absolutist formula, Leibniz puts forward a proposal of relative space and time, and simultaneously, initiates a rationalistic movement in philosophy. Hence, space and time appear to be two unreal and subjective phenomena (31–33). In addition, it is worth juxtaposing Kant's point of view with the two above indicated. As a representative of German critical philosophy, Kant explains his approach by the assumption that time together with space are received *a priori*. In other words, these notions may be obtained not only empirically but also deductively (Critchey 2001, 29–31). Admittedly, those three paradigms have provided firm foundations for further conceptions in the 20th century.




As far as 20th century is concerned, the concept of time and space has been modified mainly because of linguistic turn. A train of thought launched by Leibniz inspired Einstein to treat time as a coordinate of a point. As a result of formulating the special theory of relativity, time is no longer separate from space, but conversely, it creates a model called spacetime (van Fraassen 1970, 168–170). In fact, a debate about local and global objectivity of time is still continuing. According to Fraser, a progenitor of chronosophy, one can distinguish five spheres in terms of their attitude towards time, i.e. (1) nootemporal, (2) biotemporal, (3) eotemporal, (4) prototemporal and (5) atemporal 'umwelts', in other words 'perceived realities' (Griffin 2007, 127). Nootemporal world is characterized by the state of awareness about the passing of time, where past, present and future are precisely determined. A biotemporal sphere represents more developed species, children and human's subconscious in which mainly presence is perceived, while both past and future form vague recollections. Fraser stipulates that prototemporality is a schema used for establishing the order based on ahead- and behind-oriented episodes. In the absence of past and future events, an eotemporal state is then implicated, while an atemporal concept indicates the complete absence of time (127).




Through the prism of cognition, the perception of space may be based on our visual experience. Even though the distances can be tangible or estimated via senses, there are many spatial interpretations which vary among languages (Evans and Green 2006, 75). According to Talmy, the configuration of spatial scenes, as encoded in a language system, may be specified by three main parameters: figure-ground segregation, the relative

proximity of the figure with respect to the ground, and the location of the figure with respect to the ground (2000, 184–191). What is more, the process of establishing a position of a particular object may be carried out by employing one of the four reference frames. The first category, the ground-based reference frame, refers to the real geometry of the located figure and may be specified by such ‘linguistic determinants’ as *on the left* or *in front of*. The second type applies to the field-based reference frame, i.e. the cardinal points, where the Earth constitutes a field. In the third type, the guidepost-based reference, inanimate objects play a more evident role in positioning a figure. And eventually, the projector-based reference is strictly linked to the speakers themselves. Here, left or right side is described from their own perspective (213).

A point of view may depend on an established frame which refers to a particular object and mirrors the syntax (Evans and Green 2006, 69). The example below depicts discrepancies in a multidimensional character of flat surfaces. It may prove that the use of a particular preposition creates the impression of three, or conversely, of two dimensional objects. The given phrase pertains to the perception of objects on a flat piece of paper or canvas. Poles treat these images, either drawn or painted, as two dimensional models. It means that even if particular items constitute the entire picture, they are located on its even surface and abut its plane only shallowly. In contrast, this concept differs from the perspective of the English. Here, because of the preposition ‘*in*’, presented items are entered into the interior of the image. Hence, pictures acquire cubic capacity whereas their frames demarcate the area of a three dimensional scene, i.e. its length, depth, and width. It may be concluded that graphic images are perceived by the English almost identically as visual ones captured in the reality. As illustrated above, a non-native speaker’s way of thinking should be directed towards insertion.

Table 1. The dichotomous nature of spatial orientation (source: own elaboration).

Ex.1.	TYPE OF PP	SPATIAL	PICTOGRAM
		NA obrazku	
W/W TRANSLATION	[ON the picture]		
		IN the picture	
PERCEPTUAL SHIFT:		ON → IN	DIVERGENCE




Ex.2.	TYPE OF PP	SPATIAL	PICTOGRAM
		NA <i>niebie</i>	
	W/W TRANSLATION	[ON the sky]	
		IN the sky	
PERCEPTUAL SHIFT:		ON → IN	DIVERGENCE

In the following juxtaposition of the Polish expression *na niebie* [on the sky] and its English version *in the sky*, there also occurs a need to change the preposition provided that a non-native interlocutor is eager to speak English properly or assuming that a translator strives to be accurate. From the perspective of Poles, a particular object which has been noticed above our heads is considered to be located like a figure on canvas, i.e. it may be easily removed from its surface. Whereas the English train of thought is designated inversely. Here, for instance, clouds or a kite *in the sky* precisely suit this image and harmonize with the given ample space. Therefore, the proto-scene of the preposition *on* discontinues to be the indicator for the noun *sky* within the English language system. As illustrated via the above pictogram, the item situated on a square is supposed to be inserted in its interior.




Contrary to space, temporal perception is much more indescribable because time, as an abstract domain, cannot be sensed or measured visually (Evans and Green 2006, 75). Evans provides two lexical perspectives for time, i.e. primary and secondary lexical concepts. While the former pertain to the awareness of moment and simultaneity, the latter are connected with different attitudes towards time and its evaluation, for example, the idea of *Time is money* for industrialized countries. Hence, primary lexical concepts are quite analogous among languages, whereas secondary lexical concepts vary from the cultural point of view (79). In light of the above, Evans proposes three cognitive models of time, i.e. 1) the moving time model, 2) the moving ego model and 3) the temporal sequence model. In the model of moving time, a person who experiences moments, called the ego, is static, and only events which are in motion pass the ego (Evans 2004, 214). As opposed to the model of moving time, in the second schema the ego is dynamic and forward-oriented. In other words, the ego is moving towards the future, while leaving past memories beyond himself (219). Finally, the temporal sequence model does not relate to the ego's subjectivity. Here, the sense of timing is established by juxtaposing

earlier events with the later ones (223). The example below represents discrepancies in temporal orientation between languages and illustrates the main doubts about how time elapses.

Table 2. The dichotomous nature of temporal orientation (source: own elaboration).

Ex.3.	TYPE OF PP	TEMPORAL	PICTOGRAM
		W pół do	
W/W TRANSLATION	[half TO]		
		half PAST	
PERCEPTUAL SHIFT:		TO → PAST	DIVERGENCE

In order to attenuate the complexity of the presented juxtaposition, i.e. [half to] versus *half past*, the pictogram above will illustrate graphically the phrases via the images of two circles which resemble watches. The literal translation [half to] together with a mental realization of the preposition *to* form a forward-oriented schema. It may result from the impression that the hour which is coming is given more attention by Poles than the present one. The English give preference to the time which is happening now and treat it as a reference point. Hence, even if thirty minutes have just elapsed, a half of the clock on the right seems to be more important. Unfortunately, it raises many practical difficulties, and imposes a completely opposite way of describing time on non-native speakers.

Ex.4.	TYPE OF PP	TEMPORAL	PICTOGRAM
		W poniedziałek	
W/W TRANSLATION	[IN Monday]		
		ON Monday	
PERCEPTUAL SHIFT:		IN → ON	DIVERGENCE

The following pair reveals radically different perceptual patterns, i.e. insertion versus extraction. In the case of Polish, a particular day of the week, for instance, Monday never

collocates with the preposition *on*. The expression *w poniedziałek* [translated **literally** into English as *in Monday*] is deeply encoded in Polish and gives the impression of being inside the given day, which conveys the idea of embeddedness, whereas the English *on Monday* refers to the state of being on the top of this period. Contrary to months, in English the days of the week are preceded by the preposition *on*, thus forming frozen patterns with little variation in form. Due to this considerable difference in perception, non-native speakers may naturally use a calque, especially at an early stage of learning. Therefore, the Polish language users together with translators are supposed to familiarize themselves with the given trait of reasoning. Otherwise, if the alteration does not occur, the word for word translation will make the given utterance incongruous and unrecognizable for the English.

The presented analysis should suffice to prove that there are noticeably various concepts of space and time among languages. They have resulted from philosophical as well as cognitive determinants. What is more, one's own notion of space and time is reflected by cultural differences which are deeply rooted in language systems. Taking into consideration the above-mentioned examples, it may be suggested that different perceptions of time and space are articulated via particular prepositions which serve as indicators. Interestingly, constructions of sentences may determine one's perception in a unique way. As a result, the role of prepositions is fundamental in the process of describing the external world.

Semantic realization of prepositions and prepositional phrases

Assuredly, language and thoughts shape one's spatial and temporal experience (cf. Indefrey and Gullberg 2008). This may result from the conviction that certain schematizations reflect the way in which humans collect their knowledge and also that non-spatial as well as non-physical concepts influence the nature of meaning of a particular element. According to Nowak, prepositions demonstrate a high degree of independence and the use of these lexical items entails the expansion of meaning, for instance, to a figurative sense (2008, 98). Moreover, the extent of the semantic impact of prepositions and prepositional phrases on language will be elaborated experimentally and cognitively. It is also crucially important to determine the semantic status of prepositions and explain how the semantics of separate lexical units is modelled.

One of the fundamental theses of cognitive linguistics is the assumption that meaning is conceptualized (cf. Jackendoff 1983, Langacker 1987, Talmy 2000). This

amounts to two essential facets of human knowledge, i.e. the division into dictionary and encyclopaedic representation. Therefore, meaning can be represented linguistically by dictionary knowledge as well as non-linguistically by encyclopaedic knowledge (Evans and Green 2006, 207). Within the branch of lexical semantics, dictionary knowledge pertains to basic meanings of notions stored in the mental lexicon (209). Whereas, in terms of the pragmatic value of the lexis, referential applications of language in use together with the contextual background, like stereotypes or cultural connotations, govern encyclopaedic knowledge (ibid). The issue seems debatable whether the meaning may be viewed in either a lexical, or more broadly, an encyclopaedic sense.

Traditionally, the formal approach to linguistic meaning adopted by the semantic theorists has been depicted as lexicological. However, not only the definition itself but also social and physical experience constitute the meaning (207). Hence, this discussion impels scholars to endorse the encyclopaedic view of meaning (cf. Haiman 1980; Langacker 1987), and eventually, leads to a mutually acceptable compromise, established among cognitive semanticists, which holds that dictionary (linguistic) knowledge belongs to a more general encyclopaedic (i.e. non-linguistic) area (Evans and Green 2006, 207).

Interestingly, the dictionary view lends sufficient grounds for examining the lexical meaning via the componential analysis, i.e. through the prism of semantic decomposition approach (208). According to Wierzbicka, the common denominator for all lexicons worldwide is the set of universal features, the so-called semantic primitives or primes (1996, 16). Moreover, they can form *canonical sentences* which are translated identically into every language (22–23). In order to validate this claim, at first Bogusławski, then Wierzbicka introduced the concept of the Natural Semantic Metalanguage (NSM) which states that certain patterns are reproduced innately, i.e. literally in any system while the quality of translation is still maintained (11–13). In most cases, semantic primitives refer to abstract terms and indefinable impressions. The NSM categorizes them into, inter alia,

1. substantives, for instance, I, YOU, WE,
2. quantifiers like numerals,
3. mental predicates, e.g. THINK, KNOW, FEEL,
4. non-mental predicates like MOVE, THERE IS,
5. metapredicates such as NOT, CAN, VERY,
6. augmentor, i.e. MORE, or
7. imaginary possibility, e.g. WOULD and MAYBE.

The representatives of the groups enumerated above to a significant extent belong to nouns, pronouns, adjectives, or adverbs, and only few of them are prepositions which refer to 8) time and 9) space, e.g. BEFORE, AFTER, or NEAR and UNDER (35–36).



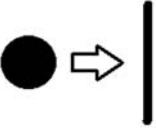
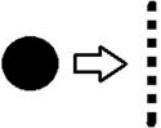




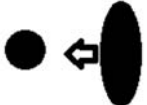
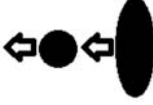

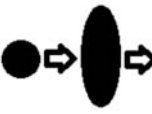



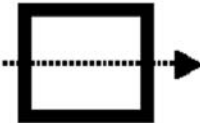
A single lexical unit may be modelled distinctively on three perspectives: homonymy, monosemy and polysemy (Tyler and Evans 2003, 4). For instance, the preposition *over* may be interpreted in four significant ways: 1) as a repetition, i.e. as *again*; 2) as the location of *above*; 3) as something finished, e.g. *The game is over*; or 4) as an indicator of a further place, like in the phrase *over there*. This raises the questions as to whether these four indicative praxes are related to each other and how a speaker was motivated to use a given word unconventionally (4–6). Here, the homonymous approach favours the idea that some independent concepts are encoded randomly in the same form (5). Nevertheless, this stance impoverishes the systematicity of language and inadequately contradicts the evolutionary character of human speech (cf. Heine et al. 1991; Levin 1993). Alternatively, according to a monosemic trait, approved by Ruhl (cf. 1989), a single term may develop many derivations depending on the context. However, it does not appear relevant when a particular lexeme occurs in contextless circumstances (Tyler and Evans 2003, 6). Hence, both homonymy and monosemy tend to be disadvantageous and not entirely successful.

The creation of meaning seems to be dictated by polysemy which results in various inventive conceptions (Evans and Green 2006, 206). Thus, while adopting the position in favour of polysemy, there appears a possibility of constructing a semantic network (Tyler and Evans 2003, 7). It means that we can pair an individual meaning with the related one on the conceptual level. Here, proto-scene plays a pivotal role in establishing distances as well as relations between objects and creates the impression of the primary sense (50). As illustrated below, table 3 shows proto-scenes for sixteen major prepositions by means of pictograms. Proto-scenes represent commonly accepted concepts of visual images and determine the interdependence of at least two entities in space, which in turn requires situational interpretations and purposeful contextualization (7).

The realization of a given preposition proceeds intuitively, which means that the specific semantics of prepositions should be agreed unanimously. Otherwise, the information they store would not be received in a similar way by every language user (62–63). For instance, the semantics of verticality presented previously suggests that there are three horizontal axes which coordinate the vertical location of an item. Although the proximity between the lines is not clearly established, the English are able to estimate the distance subjectively and use spatial particles like *above*, *over*, *under* and *below* conventionally

(130–131). Similarly, the orientation of a given landmark together with the body posture demarcate the speaker’s position and his/her own sense of directions. Here, if the trajectory of movement was excluded, the overall indication of *in front of*, *behind*, *before* or *after* would not be verifiable (176–177).

Table 3. Proto-scenes for selected prepositions (based on Tyler and Evans 2003).

PROTO-SCENES FOR SELECTED PREPOSITIONS			
			
IN	ON	TO	FOR
			
ABOVE	OVER	UNDER	BELOW
			
IN FRONT OF	BEFORE	BEHIND	AFTER
			
INTO	OUT	OF	THROUGH

In order to establish a causal link between language and perception, Visetti and Cadiot have developed the theory of Semantic Forms which states that a semantic activity may be performed thanks to three layers of meaning, i.e. 1) *motifs*, 2) *profiles* and 3) *themes* (in Feigenbaum and Kurzon 2002, 10). These three phases need to be stabilized

and sorted in terms of their dynamism. The first phase called *motif* is a principle scheme of a unit which is to be attributed to another one. Thus, its function is to motivate language users to exploit the potential of words (12). *Profiles* or *profiling* in language refers to the ability to devote our attention to certain aspects of the presented scene. In general, the range of grammatical patterns distinguishing particular language fulfils this role, e.g. passive or active voice (Evans and Green 2006, 41–43). Profiles in turn give access to the field of *themes* which makes an utterance relevant to the topic (30–31). Therefore, the reciprocity and concurrence of *motifs*, *profiles* and *themes* guarantee the analogy on many linguistic levels (33).

Hence, a group of prepositions constitutes a set of polysemous units with various associations formed due to the context and background knowledge. In light of semantics, this section outlined the dichotomous nature of knowledge structuring and presented different attitudes towards the view of meaning. Undoubtedly, any semantic network would not be invented without the primary sense created via proto-scenes. The next part will discover how the complexity of semantics may be mapped on the templates of cognitive domains.

Domains as the foundations for illustrating prepositional senses in cognitive grammar

Undeniably, a projected world differs from the real world, because any language users' representation in the mind is created consciously only within the scope of the former one (cf. Jackendoff 1983). Hence, their pictures contrast markedly depending on a speaker's preconceived norms, with the inner image being not fully compatible with the real vision. Moreover, they require certain mental categorizations with commonly accepted cognitive domains and tools which support the expression of a logical meaning attributable to a preposition. The major focus of the presented section will be the levels on which the conceptual reality is formed by prepositions and in which areas these visions may be implemented.

According to Lakoff, the overall human knowledge tends to be schematized mentally in an idealistic way, creating structures called *Idealized Cognitive Models*, abbreviated to ICMs (1987, 68–70). At the core of ICMs, there occurs the typology of prototypes, i.e. the most frequent attributes which function as templates and entail the assignment to a concrete domain (137). Consequently, they seem to prove the analogical type of human

reasoning. Here, we can distinguish four fundamental principles within which mental constructions may operate, i.e.

1. propositional structure,
2. image-schematic structure,
3. metaphoric mappings and
4. metonymic mappings (68).

Interestingly, Lakoff and Johnson both agree in *Metaphors We Live By* that concepts like, inter alia, time, states, purposes and quantity scales belong to the group of complex propositional structures (1980). However, Johnson puts greater emphasis on image schemas and metaphors assigning them the role of evoking new connotations and enriching our cognizance (1987, 25–26, 50). This may therefore lead to the assumption that imagination is germane to the operation of attributing the meanings, and also help explain that categories, schemas, metaphors and metonymy combine essential prerequisites. Thus, in order to maintain the coherence of human experience, some scenes or concepts, when perceived repetitively, should be given a specified status (12).

As far as the notion of *domain* is concerned, it was firstly introduced by Langacker in the 1980s and originates from his *Theory of Domains* which gave the foundations for Cognitive Linguistics. The central tenet of this theory states that even if the meaning is encyclopaedic, any element of lexis cannot be apprehended without the reference to its domain (in Evans and Green 2006, 230). Langacker considers domains to be “necessarily cognitive entities: mental experiences, representational spaces, concepts or conceptual complexes” (1987, 147). Therefore, they should be designated by areas within which we are able to structure the acquired knowledge in our minds. In general, cognitive domains seem to be relatively fixed; however, they may be also seen as unlimited and unrestricted.

Langacker divides domains into basic and abstract. Basic domains form such categories which cannot be separated into smaller levels. They outline sensory reception and subjective impressions, like space, time and colour (149). Whereas the second type of domains refers to our imagination, embodied experience and sophisticated concepts, like friendship or marriage (150). This is due to the fact that the perception of the reality may be proceeded twofold, either directly, i.e. physically in a palpable way, or metaphorically, in other words, intangibly with subconsciously created abstract impressions (Johnson 1987, 97, 230). Interestingly, a straightforward spatial application of prepositions may be used within abstract domains, i.e. by marking their direct meanings into an abstract area (Lakoff 1987, 97). Hence, it becomes possible to apply spatial models into metaphors, and as a result, to extend basic meanings of prepositions.

Cognitive domains may as well be ranked and prioritized according to their dimensionality, i.e. their order and perspective. For instance, time and temperature both represent one-dimensional notions, while space exemplifies a two- and three-dimensional domain (Langacker 1987, 150–152). Despite some criticism (cf. Clausner and Croft 1999), Langacker also proposes differentiating between locational and configurational domains. Here, the determinant factor is the aspect of calibration of the given concept, e.g. location supports a temperature scale, whereas configuration defines spatial items. However, the locational character of the analysed idea may be altered into configurational character depending on the context, so the division of the two has been established only hypothetically (Langacker 1987, 152–154).

Additionally, in *Conceptual Metaphor Theory*, formulated by Lakoff and Johnson, we can discover the source and target domains which seem to be comparable to Langacker's basic and abstract domains (Moreno 2007, 131–135). The former is in most cases obtained physically, while the latter pertains to more complex areas. According to Lakoff and Johnson, our actions and reflections are naturally metaphorical, which means that the background information from the most primitive levels, i.e. source domain, is necessary for speakers to map their knowledge onto more abstract domains; here, the target one (131–135). For example, the metaphor *life is a journey* would not evoke proper associations if a speaker did not know how to interpret the concept of *journey* and was not able to map across domains. In this case, *life* as well as *journey* denote target and source domains respectively. Taking into account prepositional phrases, in the abstract phrase *under control*, the awareness of the location suggested by the preposition *under* and the insight into the given notion connected with power and authority, gives the impression that a simple spatial meaning of *under* creates the source domain, while *control* belongs to the target domain.

For the sake of comparison, Radden and Dirven have selected three major types of domains:

1. **spatial domain** which supports the estimation of distances and describing locations,
2. **temporal domain** which is used to illustrate the passage of time, and
3. **abstract domain** which serves as the indicator of emotional states, invisible and mind condition (cf. Radden et al. 2007).

Moreover, spatial domain seems to be predominant of the three (cf. Cuyckens et al. 2007). It should be stressed that the multiple senses of any preposition will not be possible without the permeation of these cognitive domains. Hence, to illustrate this point,

the table below shows various transfers of rudimentary meanings of prepositions into abstract and imaginative phrases.

Table 4. The examples of English prepositional phrases across three cognitive domains (based on the British National Corpus and Radden et al. 2007).

Preposition	IN	ON	AT	UNDER
Spatial Domain	in the house	on the roof	at school	under the table
Temporal Domain	in July	on Monday	at midnight	under ten seconds
Abstract Domain	in anger	on a diet	at risk	under pressure





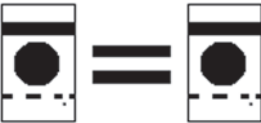

The first part of the presented division elaborates on the domain of time and is based on the examples whose content alludes to a calendar or watch, in other words, it is based on date- and time-related prepositional phrases. Thus, it examines combinations of the class of prepositions with seasons, days of a week, various daytimes, special occasions or ceremonies. Here, the issue of chronemics and the sense of time among nations are verified.

The second category corresponds directly with the spatial cognitive domain. Here, the ways of perceiving the surrounding reality are determined, i.e. inanimate objects, places and the constituents of natural or urban environment. Undoubtedly, people can easily delineate boundaries within the image of every tangible item or visible construction. However, the attitudes towards their demarcation vary within societies, for instance, in terms of the impression of belonging to a certain area, or conversely, being outside this zone and observing something from a distance. People-manufactured and natural determinants together with their collocations with prepositions help trace the stages of perception which appears to be unique for a particular nation. The subject matter of the given part is to compare the sense of direction and current location among two different ethnic groups.

The third cognitive domain is comprised of imaginary notions which cannot be seen or touched and are hardly possible to be drawn or heard. The list encompasses the terms that are experienced spiritually and felt subconsciously, e.g. *conscience*, more mundane matters like *a diet*, mystical concepts like *a dream* as well as emotions such as *anger*. The main objective of example 5 below is to confirm the accuracy and veracity of the statement that within the abstract domain the perception proceeds almost identically regardless of

the nationality. Here, the awareness of being in a relationship with another person entails the application of the preposition *in* both in Polish and in English. The term *relationship* refers to closeness within a pair of lovers. In this case, it means a sexual or romantic relationship, i.e. living after getting married or in cohabitation. While staying in a relationship, people retain physical and emotional connections with each other. To visualize this case, we can imagine a given space which is shared by a couple of people who live together. Hence, the above pictogram may suggest that the access to the given square is provided only for those who are involved permanently.

Table 5. The congruous thinking between Poles and the English while conceptualizing abstract notions.

Ex.5.	TYPE OF PP	ABSTRACT	PICTOGRAM
		W związku	
	W/W TRANSLATION	[IN a relationship]	
		IN a relationship	
PERCEPTUAL OUTCOME: IN = IN			CONVERGENCE
Ex.6.	TYPE OF PP	ABSTRACT	PICTOGRAM
		POD kontrolą	
	W/W TRANSLATION	[UNDER control]	
		UNDER control	
PERCEPTUAL OUTCOME: UNDER = UNDER			CONVERGENCE

The proto-scene for the preposition *under* within Polish and English recipients is constructed at a comparable level. The location of being under a particular object gives the impression that something has occurred above one’s heads. In this case, the phrase *under control* eliminates randomness and disorder, because when, e.g. the finances are kept under control, they are situated under a protective umbrella in a figurative sense. Here, the general idea of control forms an imaginary shelter for one’s plans in which there arises the opportunity to supervise an ongoing process and to foresee possible

results. Therefore, it allows one to make real life matters systematized and safe. Similarly, the expression *to be under someone's control* [być pod czyimś wpływem] describes a person who is influenced by other more dominant characters. Hence, the effect of the literal translation of a given Polish example eventuates in the expression which becomes commensurate with its English equivalent.

To recapitulate, this section enables one to differentiate a domain from a concept and elaborate on specific types of domains. The unlimited possibilities of prepositions in supporting the expression or reinforcing the metaphorical message are evidenced by main characteristics and classifications of cognitive domains. Within every linguistic system, there happen cross-domain mappings which in turn enable linguists and theoreticians to conduct their research in terms of the multiplicity of semantic cognition.

Conclusions

The reality and timeframes, subject to human perception, in a sense, indicate cultural differences and explain the instinctive choice of a preposition. When it comes to abstract notions, this inventive domain is characterized by a high level of congruous thinking despite the mother tongue in which the interlocutor thinks. The aim of this article was not to evaluate the given collocations in terms of their logic, but to determine linguistic differentiation in reasoning among particular speakers and indicate diversity of perceiving the external world. A mother tongue will always play a referential role and its certain schematizations seem to act as a matrix.

In light of the abovementioned cognitive theories, the class of prepositions appears to be very eclectic. Taking into consideration their essential attributes and the implementation of semantic patterns, the following postulates can be formulated:

- Prepositions are presented as a distinct part of speech due to their semantic relevance. Moreover, they help clarify the meaning of phrases and establish definite links between the components in a sentence. When it comes to prepositional phrases, they are typically comprised of at least two components, i.e. they form combinations of, inter alia, prepositions with nouns, prepositions with pronouns or prepositions with numerals.
- The impression of the primary sense is created via a proto-scene for a given preposition. It results from the fact that a polysemous trait of interpreting offers interlocutors various inventive conceptions and gives a possibility of constructing

a semantic network. Therefore, proto-scenes help determine certain estimates, establish distances as well as outline the relations between objects.

- Viewed cognitively, basic domains of experience may be divided into three categories, i.e. a) temporal, b) spatial, and c) abstract. They reinforce the message encoded in prepositional phrases which may be, respectively, a) time-related, b) calendar dependent and c) conditioned by human imagination. A concept of the Natural Semantic Metalanguage formulated by Wierzbicka helps distinguish certain repetitive patterns for all lexicons worldwide. Based on semantic primitives, it may be assumed that regardless of the nationality, some phrases, especially those from the domain of imaginary notions, are expressed in a specific way, and then, translated identically.

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