



From human body parts to the embodiment of spatial conceptualization in English idioms

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Selected Papers from the 4th UK Cognitive Linguistics Conference
<http://uk-cla.org.uk/proceedings>
Pages: 195 – 213

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Abstract

The article focuses on the relation between “mind” and “body” within the domain of English idioms. These two entities are inseparable from each other, but still are rather different. Though the development of thought depends on environmental changes and communicative situation, it “ties mind inextricably to body and environment” (Johnson, Rohrer, 2007: 22). Capacities for perception, object manipulation and bodily movement in the outer world, which are at the core of person’s visual system have their roots in spatial cognition. It exists only in close connection with social, cultural and emotional experience of a human being.

The importance of investigating idiomatic expressions in English arises from the fact that they specify linguistic and extra-linguistic knowledge in a rather specific way, because of the conceptual dependence of their components on the composite structure of the whole unit, different degrees of fixedness, motivation and dependence on the user’s pragmatic needs in situational contexts. English complex idiomatic units with head, eye(s), nose and mouth as their components will be illustrated in the article on the basis of the compositionality of meaning and image schemas.

As the result of the cognitive modeling, human body parts in phraseological units of English are conceptualized in several ways referring to a finite number of topological classes: 1) containers with inner and outer spaces; 2) containers with inherent parts of conceived entities, that may be open or closed; 3) static objects located in as points in space; 4) dynamic things profiled in their motion over the landmark. Inside these topological classes the integration of two or more image schemas may be observed. The analysis of human body parts in idiomatic units of English has proved to be fruitful, because the combination of cognitive methods provides the basis for our understanding of conceptualization and reasoning.

Key words: cognitive linguistics, human body parts, English idioms, phraseological units, embodiment, spatial conceptualization, cognitive modelling, image schemas

1. Introduction

The ontological entity represented by the dichotomy of "mind" and "body" has attracted attention of linguists, psychologists, cognitivists and specialists in other adjacent spheres of knowledge all over the world. This dichotomy shows that "we do not know everything about the nature of language and thinking, language and society, language and life" (Alexandrova, 2011: 7). The evidence of the link between these entities becomes much more complicated for the origins of the provoked discussion, because it implies the focus shifting to the philosophical inquiry. It is possible to single out two distinct scientific approaches in linguistic and cognitive literature, according to which the link between these two notions is explicated. It should be emphasized as far as these approaches are concerned that both tendencies and their findings are crucial in explanation of discursive activity of an individual. This correlation is clearly revealed on the specific sphere I'm dealing with – the domain of English idioms.

The objective of this paper is to show the rich system of the English idiomatic expressions with human body parts. This objective is realized by certain steps, according to which the article is structured as follows. At first, I'm going to find out the correlation between "mind" and "body". This description serves me as a thread from encyclopedic knowledge of separate words in our mind to the dynamic system of conceptual processing based on semantic and structural significance of each component in the given situational context. Here I will confine my attention to semantic compositionality that puts word meanings to the fore of the utterance. Secondly, it is necessary to review briefly the role of spatial experience enriched by the correlation with other spheres of human knowledge. This helps me to bring forth the terminology of spatial representation in works of specialists in cognitive science and then image schema technique, which offers fascinating evidence of the role of human perception in elaboration of lexical concepts inside idiomatic expressions. In the article I illustrate the model of compositionality of meaning relying on English phraseological units including *head*, *eye(s)*, *nose* and *mouth* as their components. It is a well-known fact that names of human body parts refer to the most ancient semantic category and the conceptualization of these words is fully anthropocentric. Moreover, an account of conceptualization of human body parts in phraseological units of English reveals not only spatial characteristics of its components, but also additional cognitive mechanisms biased with evaluative categorization and conceptualization.

2. Why should we take into account the correlation between "mind" and "body"?

The link between "mind" and "body" is claimed to be crucial in modern humanitarian sciences of today. There exist two main tendencies presenting this issue.

The first approach is based on a traditional viewpoint formulated by medieval grammarians and developed further by different versions of philosophical theory in the 20th century. It takes into account the conventional relationship between some referent (object), symbol and its form. The model has adopted modifications due to the perception of extra-linguistic reality generalized in the meaning of a particular word or phrase. This framework views human thinking as contrasted to language represented symbolically inside the mind of a human being (See fig. 1 based on Evans, Green, 2006; Evans, 2012). For example, the meaning of the word "cat" can be faced directly: it refers to "any cat" or "the class of cats", which is intended by denotation and described in general, outside the particular context. It can be illustrated by a set of features associated with the idea. These features include the descriptions of fur, paws, whiskers and tail as elements of our knowledge of the particular referent. The definition of the word in the dictionary as "a small domestic animal with soft fur kept as a pet and used for catching mice" also penetrates into the object function and anchors the word within the class of particular objects.

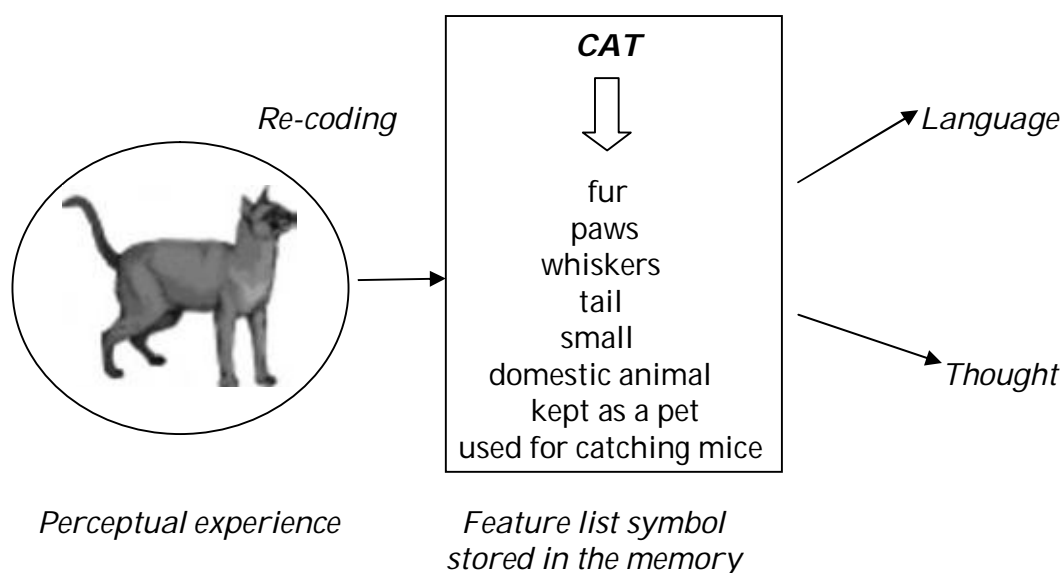


Figure 1. Feature representation of the word meaning "cat" (Evans, Green, 2006; Evans, 2012)

The other symbolic unit "head" is no less representative than the previous example. The meaning of this word is immediately recognized by a list of features referring to people's understanding of it in general. Key features corresponding to the semantic content are as follows: "part of the body", "top part", "human", they may also include some body parts, such as "face", "eyes", "nose", "ears", and "neck" on the basis of our knowledge organization about human body and its constituent parts. Dictionary definitions of the word "head" help to correlate the language unit to the world of things outside the language which they refer to, e.g.: "the top part of your body that has your face at the front and is supported by your neck" (Longman English Dictionary Online) and "the part of the body above the neck where the eyes, nose, mouth, ears, and brain are" (Cambridge Free English Dictionary).

The opposition of virtual inner "objects" and symbolic units in language correspond to the question "how the inside (i.e. thoughts, ideas, concepts) can represent the outside (i.e. the world)" (Johnson, Rohrer, 2007: 1) and how these notions are to be used in language. Though linguists understand that there is no singleness in concept-word and word-thing correlations, this approach ignores the peculiarities of the body and brain and gives no chance to deep understanding of human concepts and reason.

The second approach was introduced in pragmatism philosophy and later elaborated in cognitive science, where mental operations and structures involved in language meaning were described from a bit different perspective. This approach regards word meanings as inseparable from other kinds of human experience and knowledge. The human conceptual system is presented as "emergent, situated and dynamical". It contains "online processing" (perception, categorization, inference, action) and "offline processing" (memory, language, thought) (Barsalou 2012). The notions of "mind" and "body" are described on the basis of representational mechanisms and brain's model systems.

In this cognitive-oriented perspective language is described as an essential part of the human conceptual system, which resides in the minds of the speakers of that language, but not in dictionaries (Dirven, Vespoor, 1998: 14). The word is not thought as some kind of objective reality existing "in and for itself", it is shaped by our cognitive function including human perception, ability for categorization and conceptualization, interwoven with the interpersonal experiences of human interaction. Ronald Langacker thinks that when identifying and describing domains of human experience in communication we should be guided by a large body of knowledge, which language units provide access to through a number of given instances of use. This sort of knowledge is "encyclopedic" in nature (Langacker, 1991: 4). Vyvyan Evans develops his idea, defining encyclopedic knowledge as "the highly detailed, extensive and structured knowledge we as humans appear to have access to in order to categorize the situations, events, and entities we encounter in our daily lives and in the world, and the knowledge we draw upon in order to perform a range of other higher cognitive operations including conceptualization, inference, reason and choice, and the knowledge which language appears to rely upon. This kind of knowledge is primarily non-linguistic, or conceptual in nature" (Evans, 2013: 17).

In sentences as parts of discourse we usually combine words, but each of them manifests the capacity to structure the content and the author puts the most relevant features to the fore according to the communicative purposes in particular situations. Distinct peculiarities of language units in the utterance arise from the semantic and functional significance of these conceptual entities with each other. They determine the meaning of the word. For example, in sentence 1 the profiling position of the entity *head* is conceptualized against the other base entity *neck*, also referring to the whole human body. The body of a human being becomes the conceptual domain of both conceptual entities in the described situation:

(1) **Head** is the **part of the body** above the **neck**.

The image of one object in our mind against the other image provides access to our encyclopedic knowledge, which in its turn narrows the meaning of the word *head* in the context. The integration of the lexical meaning of the word and its functional usage becomes crucial for language use and language understanding.

The cognitively plausible is the idea of the semantic compositionality of the word meaning in construction process. R. Langacker stressed that the meaning of a complex expression designates the entity function "in the scope of predication" (Langacker, 1991: 8), when something smaller is defined by a larger scale body part, e.g. *hand*, *elbow*, and *forearm* is the case of *arm*. And *hand* furnishes the immediate scope of predication for *palm*, *thumb*, and *finger*. In our example the meanings of words that are met in sentences 2a and 2b are quite predictable due to the relationship of the components, c.f.:

(2) a) **Head** is the **part of the body**.
b) **Finger** is the **part of the hand**.

Vyv Evans illustrating the usage of prepositions with noun phrases (*on the floor*, *in the garage*) notes that such constructions are stored in our memory in the form of an abstract schema. Such schema lacks a schematic meaning, but instead it has "the status of an "instruction" about what some semantic information "can be combined to make grammatical units" (Evans, 2009: 97). These schemas are derived from language use; they incorporate semantic features specified in structural and syntactic representations. He also thinks that people's consciousness is accustomed to the use of "part-whole" relational schemas as the simplest kind of constructions, because they become the most economical way of registering the great amount of information.

Advancing from semantic compositionality of non-figurative words in sentences it is necessary to mention that the empirical data is semantically and syntactically saturated. This way of scientific inquiry addresses "a strong dependence of concepts and reason upon the body" (Lakoff, Johnson, 1999: 77) as one of the signs of psychological reality. The understanding of this aspect brings us closer to the "embodied understanding in all aspects of meaning", both "in the structure and content of our thought" (Lakoff, Johnson, 1999: 78).

3. Image schematization of spatial experience

If the correlation of "mind" and "body" is quite clear now, the idea of the semantic compositionality may be also developed on the basis of other relations between the concepts. Sentence 3 serves as an example of another compositional model. Since such abstract imagery is devoid of details, it highlights mainly spatial relations.

(3) **Head** is above the **neck**.

Following from the structure of this sentence we are able to illuminate the spatial status of each component in human body relations. One of the entities is viewed a bit higher than the other one, but head exists in close contact with the neck underlined by the preposition "above".

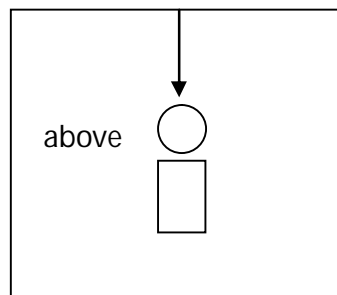


Figure 2. Schematic representation of sentence 3

Even this situational context shows the capacity of a human being for various kinds of sensations, perception, object recognition and its manipulation in the outer world. This capacity has its roots in our sensimotor systems of structuring of the observed. While examining sentence 3 and figure 2 it becomes clear that spatial experience is of great importance for a human being, because it lies at the core of person's visual system (Langacker, 1991; Koubriakova, 1997; Manerko, 2000). This privileged position of space concepts among all other domains of human experience, including physical, social and psychological world was underlined by philosopher I. Kant many years ago, who pointed out that spatial concepts are "fundamental intuitions that the rest of our ideas about the material world presuppose" (Levinson, 1999: 30). Though G. Lakoff and M. Johnson state that none of spatial, social and emotional experience "has experiential priority over the others; they are equally basic kinds of experience" (Lakoff, Johnson, 1980: 59), the other viewpoint is developed in cognitive studies. Provided by linguistic and other semiotic sources, it points that the evidence of space is "at the very heart of all conceptualization..." (Pütz, 1996: XI).

Sentence 3 and figure 2 represent the conceptual entities characterized by the static configuration of the objects in space. It looks similar to the sentence *The bike stood near the house* explained by L. Talmy (Talmy, 2001. Vol. 1: 184). In his example the first object's site is the *bike* indicated as a "primary" object. It is smaller, geometrically simpler, of great relevance and is depicted as a *figure*, while its location - *the house* - becomes the "secondary", but larger object. In his linguistic schematization of spatial relations it is called a *ground*. In the same way R. Langacker described the expression *The lamp is above the table* (Langacker 1999: 25) providing the disposition of objects in the static situation. Our example 3 regards the head as the figure above the neck in accordance with the profile of the ground.

There may be one more perspective, if we display the dynamic spatial relations with a moving or potentially moving object. And in this case R. Langacker's notions of *trajector* and *landmark* look very much akin to the perceptual phenomenon of figure/ground organization (Langacker, 1999: 32). The object in motion is called a *trajector* and its reference point is a *landmark*

or *landmarks*. The schematic trajectory results in the relational predication of the landmark.

To help refine the question, I want to turn to Ray Jackendoff's idea, who marked (Jackendoff, 1983, 1996) that the analysis of universal cognitive mechanisms in linguistic means of "a projected world" is possible to do in a schematized or idealized manner. The measurement of objects characterized by length, width, height, depth or volume becomes inessential for the aims of communication. They have been called image schemas.

Image schemas are used to do with peculiarities of understanding of the surrounding reality, object balance and navigation in space. An image schema is thought to be the best among other idealized cognitive models, to which propositions, frames, mental spaces belong. For example, G. Lakoff asserts that "image schemas structure our experience pre-conceptually" (Lakoff, 1980: 359) on the basis of information existing in our mind. Our cognitive unconscious thoughts usually refer to the "embodied structure constitutive to the experience" of objects in space (Lakoff, Johnson, 1999: 116). M. Johnson considers image schemas as conceptual structures that may represent generalized spatial characteristics of objects and their interrelations between the world and human body. The dynamic pattern of our experience is organized in such a way to give it "coherence and structure" (Johnson, 1987: 347). There is one more definition of the image schema, which is regarded as a "reduced, topologically structured, schematic representation which is an important underlying unit in our cognitive representation of meaning" (Sweetser 1999: 121). All these definitions contrast to each other in minor peculiarities, though they reveal the crucial features of conceptual knowledge structures necessary for our analysis.

Image schemas are able to represent peculiarities of compositional semantics in non-figurative language means. But linguists highlight cases of metaphor, metonymy, prototypes, frames, and mental spaces. They shift "the centrality to conceptualization and reason of imaginative processes" (Lakoff, Johnson, 1999: 77). So, the imaginative inventory has become the basic concern of cognitive science at work, because it reflects the way we think.

Among the imaginative inventory of the lexicon we can find set expressions or word-groups consisting of two or more words whose combination is integrated as a unit with the specialized meaning as a whole. They are nominative units of different kinds depending on their function in the sentence (Kounin 1984). These phraseological units are usually motivated, "preserve relevant knowledge as part of their content plane ...including reflections of the respective culture", "goes back to tacit etymological knowledge" (Dobrovolskij, Piirainen, 2006: 28, 32). They may be partially or fully figurative. The integral sense of an idiomatic unit does not represent the summarized meaning of its elements, they are "conceptually dependent" (Langacker, 1991: 28) on the composite structure of the whole phrase and the user's discourse-pragmatic needs. They are defined as fixed, "open to limited elaboration" and showing "restricted syntagmatic variability" (Langlotz, 2006:

86). The "restricted lexicogrammatical malleability" and "creative variation" of such expressions has long been recognized as an empirical fact (Langlotz, 2006: 86; Feyaerts 2006: 58).

Application of the aforementioned ideas to the description of conceptualization mechanisms in complex expressions belonging to the domain of English idioms seems to be very prolific, for three main reasons.

Firstly, the understanding of spatial experience expressed by language units specifies the difference between linguistic and extralinguistic knowledge. It reflects the aspects of the interrelation between language and space, mind and body.

Secondly, the interest to human body parts, especially in English phraseological units, seems to bring fruitful results, because people "use human categories to describe and understand nonhuman ones" (Heine, 1997: 40). Accordingly, the human body provides the most important model for expressing concepts of spatial orientation.

Thirdly, it seems a front-burner issue to advance in settling the various possibilities of expressing spatial as well as emotional and social experience, which constitute a considerable challenge for the analysis of idiomatic creativity expressed by language means different degrees of fixedness.

To make all the examined peculiarities of spatial conceptualization clear I am to turn to image schemas expressed by English phraseological structures under analysis.

4. Main topological classes of idiomatic expressions

In this part of the article I'm going to show how phraseological units of English with human body parts as their components may be conceptualized spatially (Manerko, Tuarmenskaya 2005). The material of analyzed fixed expressions permits to reduce them to a finite number of topological classes. These classes are made up according to several points in the static object location or its dynamic change, the dependence of the lexical and phraseological meanings of combinations upon the structure of the sentence determined by the context. Besides that, in my description I distinguish between the cases of figurative meaning of combinations. They give solid evidence that spatial knowledge governs social and psychological factors of cognition, elucidates the conceptualization structure evoked by linguistic expressions.

4.1. Idioms corresponding to a CONTAINER schema

To describe the first class of idiomatic expressions, it is better to start with the idea of R. Jackendoff (1996: 105), who pointed out that "Language distinguishes containers from solid objects". Here we immediately imagine objects like cups, bowls, boxes, jars and so on. These are hollow things

encoded by the language as a set of names for "containers". The concept of a container helps to structure human experience and is regarded to be one of the most important image schemas. One of the main properties of a container is a bounded region or a borderline between the interior space, which is discrete and limited, and the outer space.

Discrete and limited space inside such organs as *head*, *eye(s)*, *nose* and *mouth* may serve as the containers for other, smaller objects. This fact is reflected in a number of English phraseological units which display more characteristic features than individual words because of their complex structure. I would like to point out at three main features of body parts in CONTAINER IMAGE SCHEMA.

1) In the first group of combinations elements *head*, *eye(s)*, *nose* and *mouth* are viewed as holding things inside them. In this case, a virtual boundary represented by the preposition *in* helps to distinguish a body part (eyes, nose, mouth) as a conceived entity. For example, in the English idiom *have eyes in one's head* means "to be observant; be able to notice one's surroundings, what somebody is doing" (ODEI 1993: 259) eyes are singled out for primary focal prominence. They are recognized as the immediate context of the head, which is accorded by a secondary local prominence. In the example *Well, it's getting pretty obvious about you and Katie, and I've got eyes **in my head** as well as anyone else* eyes are becoming the entity and the whole expression is concerned with locating and characterizing the figure object. The elaboration of this image schema is distinguished, when the head is becoming the container for human thoughts and ideas, e.g.: "*There's a lot going on **in her head**."* (BNC [ACB](#) 790); "*The fellow's twenty-two, and I swear if he had an idea **in his head** he'd be a great painter."* (BNC [CRE](#) 454).

The shape of an eyeball is of a round sphere. No wonder that eyes are often conceptualized as containers with hollow structures which may be filled up with other objects, either material or abstract, e.g.: *I saw a gleam **in his eye** or Beauty is **in the eye** of the beholder, but what makes the beholders themselves so unattractive?* The second example tells us that there is no absolute standard for beauty, everything is individual. Grammatically both phrases localize the figure entity (*gleam*, *beauty*) in some particular place. The construction's composite structure profile is directed at the eye of a person (it becomes a *ground* in this linguistic schematization). In both examples the preposition *in* activates a CONTAINER-SCHEMA with the interior profiled, but in the first example the observer is quite near to the other person, he sees a gleam in the eye of the other person, he may look in the eye of the interlocutor (See additional examples from the British National Corpus: *Nathan looked her **in the eye*** (BNC [C86](#) 2356); *Come on he's gonna look **in my eye*** (BNC [FXM](#) 23), while in the second example with beauty in the eye of the beholder the situation is more abstract and evaluating, it depends on the relationship towards it: what one person finds beautiful may be contrasted to a completely different opinion. Eyes also correspond to more abstract ideas, like in the following examples: *I can see them **in my mind's eye** even now* (BNC [BN6](#) 180), *In her mind's eye, she could see him walking out of the velvet sea, the sunlight golden on his skin* (BNC [JY7](#) 3176).

Mouth cavity may also contain objects inside: *speak with a plum **in one's mouth*** (if somebody speaks with a plum in their mouth, they speak in a way that shows they are from a very high social group): *All I can remember is that he was overweight and spoke with a plum **in his mouth*** (CIDI 1998: 304) shows the way a person behaves. The social characteristics are activating the topological neural map of a container. The next sentence corresponds to the figurative usage of the whole phraseological unit in the new context of its usage, e.g.: *Too bad the horrendous loading system **leaves a nasty taste in the mouth** — had it not been for this I'd have cheerfully awarded around 85% (disk owners take note)* (BNC [C87](#) 644).

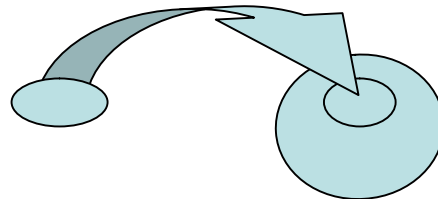
2) Containers may be open or closed if the action denoted by a verb is aimed at extracting some restricted inherent subpart of the perceived surface of a container. It may be represented by the following example: *And then I'll be good and **not open my head** again* (Kounin 1984: 370), in which the phrase *to open one's head* corresponds to the idea of talking too much revealing one's thoughts. In the second sentence *Everything I say is wrong this morning. I'm frightened to **open my mouth*** (ODEI 1993: 441) the expression *to open one's mouth* means "to say something, the implication often being that somebody speaks too readily or indiscreetly". The difference between *to open one's head* and *to open one's mouth* is associated with the positive in the first case and positive or negative evaluative connotation in the second phrase.

In the utterance *She was besotted with him and **closed her eyes to his character defects*** (CIDI 1998: 121) the idiom *to close one's eyes to something* means to pretend that something bad does not exist because you do not want to deal with it. *Head, mouth* and *eyes* in these examples are just single focal participants and they function as independent figure entities corresponding to the doer of the action. In such cases a SOURCE-PATH-GOAL SCHEMA is superimposed on the CONTAINER SCHEMA activating either the starting or endpoint profiled.

3) An object can be put inside or taken out of a container which is represented by a body part. In these situations the object functions as the initial (or primary) moving force. In the examples below this moving object is referred to as a *trajector (Tr)* – represented by a *thing, foot* or *pepper*. The body part becomes the *landmark (Lm)* for the container. The boundary piece of space is usually marked by a verb construction as in the following sentence: *That was just an excuse. I wanted to get back early, and I said **the first thing that came into my head*** (ODEI 1993: 190). The metaphorical expression *to come into (or enter) one's head* describes a hasty and unconsidered opinion, remark or reply. The other example *To the majority of voters, he hopelessly unpresidential, a lightweight, forever putting his foot **in his mouth*** (CYC 2004: 236) includes the dynamic situation of putting something into the container, that means that you say something which embarrasses or offends the person you are with, and embarrasses you as a result. In the utterance *Take your pepper **in the nose**, you mar our sport* (WDPHF 1993: 820) the initial phrase *take pepper in the nose* means "to take offence". The verbs of motions *come, enter, put* and *take* serve as manifestations of the object

navigation inside of the container. In all these examples the preposition “into” as well as “in” superimposes the SOURCE-PATH-GOAL schema on the CONTAINER schema. This becomes a combination of two image schemas, in which the destination (endpoint) is mapped into the interior of some body part (*head, mouth, and even nose*) in the CONTAINER schema. To illustrate such meaning I’m using pieces of sentences, in which idiomatic expressions are registered. They involve visible actions and movements inside the container. The analyzed examples are represented schematically in figure 3.

Tr (thing)



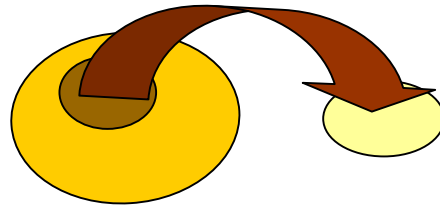
Lm (container)

Figure 3. The combination of the SOURCE-PATH- GOAL schema and CONTAINER schema

Quite the opposite, is observed when we extract something out of the container. These set expressions are called as visuo-spatial bodily idioms, because they "encounter movement, transition, positioning or a directional change of state" (Antović, Stamenković, 2012: 389). In such cases A CONTAINER superimposes on the SOURCE-PATH-GOAL relations. It can be exemplified by the following phrase: *You should **put any idea** of marriage right **out of your head*** (OALD 1995: 550). In the idiom *to put something out of one's head* the process of stopping thinking about something or giving up a plan is illuminated. The other example may also be included into the same topological class, cf.: *I was just going to mention that, but you **took the words** right **out of my mouth*** (CIDI 1998: 431). The idiomatic phrase *to take the words out of somebody's mouth* denotes the process of saying exactly what somebody else was going to say or what interlocutors were thinking about. The same relations can be observed even in the phrase *to cry one's eyes out*, when the image combines the extraction of the body part (contained) out of its container (head).

The whole idea exemplifies the trajector (some object of a smaller size) extracted out of the container (a human body part). It is shown in figure 4.

Tr (container)



Lm (thing)

Figure 4. The combination of the CONTAINER schema and SOURCE-PATH-GOAL schema

In this part of the article I tried to show the representatives of the first topological class of idiomatic expressions. All of them demonstrated that the image schema of a CONTAINER underlies our cognitive representation of the meaning of the fixed combinations. If it corresponds to a static entity, then L. Talmy's terms of *figure* and *ground* are used in the description of linguistic units. If we distinguish the dynamic situation, the CONTAINER schema is combined with SOURCE-PATH-GOAL schema and R. Langacker's terms *trajector* and *landmark* explicate the cognitive processing of idiomatic phrases, especially paying attention to source, path or endpoint focus. We either put something inside the body part conceptualized as a container or take the object out of it.

The other two topological classes show a bit different contexts of spatial characteristics.

4.2. Location of the object in space

In some cases location relative to other objects makes human body parts recognized as points in space. As L. Talmy (1975, 2001) states that might happen if the objects are unequal in size and/or mobility. The entities we focus our attention on are involved in two types of spatial relations, static and dynamic ones. In the static scene, for example, the meaning of the construction *to keep a good head on one's shoulders* corresponding to the idea of being calm, clever and sensible is clearly revealed in the course of its occurrence in the sentence: *Most of the children just screamed, but Emma kept a head on her shoulders and she put the fire out with a bucket of water* (WDI 1993: 156). It is essential that the static position of the figure implies the stative verb *to keep* combined with the preposition *on*. The head as the most prominent object is placed on shoulders becoming the ground object (a line) corresponding to the whole person's body. This situation is sketched in figure 5.

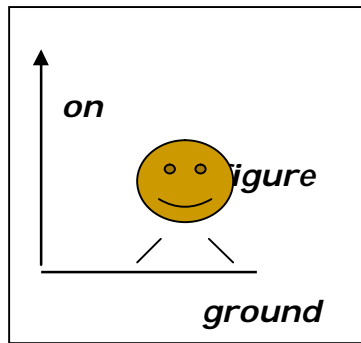


Figure 5. The static position of a figure with the preposition "on"

Approximately the same type of relationships is observed in the phraseological unit *to keep one's head above water* "to get or earn money, profits, etc.; to remain out of debt", like in the following example: *We're not making a lot of money in the shop, but we **are keeping our heads above water*** (WDI 1993: 156). This example reminds of the composite phrase *lamp above the table* described in Ron Langacker's book (1991: 27-31) and sentence 3 to which figure 2 corresponds. He stresses that relational predication of the schematic trajectory lending its profile to the composite structure. The locative relationship of the lamp to the table includes a prominent facet of the base.

The idiom *to keep one's head above water* creates an image of a man struggling hard not to drown. He manages to keep his head above water which lets him breathe and, consequently, stay alive. In this example the head is a *figure* while the surface of water is a kind of a ground. Besides that the preposition *above* designates a static relation involving a schematic trajectory and a specific landmark, but what's important that in the analyzed phrase the description of concrete situation is added. The situation includes not only the spatial relationships, but the dependence upon the circumstances of life or the so called social factor (See figure 6).

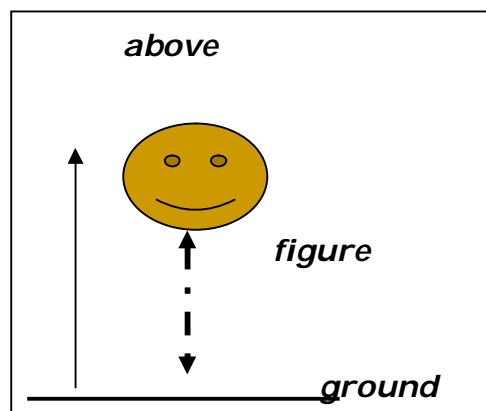


Figure 6. The static position of a figure with the preposition "above"

Both examples *to keep a good head on one's shoulders* and *to keep one's head above water* illustrate that some part of human body depends on the environment, in which it is necessary to keep the bottom and bright head on or above some level. In the image schema (figure 6) vertical superiority of the figure over the ground is profiled.

It is necessary to mention that human body parts may be specified as landmarks if compared to the spatial position of other objects. The parameter of contact is not distinctive here, but vertical or horizontal axes of both – the figure and the ground – are of great importance, for instance: *above somebody's head* denotes “too difficult for somebody to understand”. The meaning of the phrase can be presented in the sentence: *What he said was well **above their heads** – he should have made his talk much simpler* (WDI 1993: 155).

The other phrase *under somebody's (very) nose* specifies a bit different situation, when a person doesn't notice anything or something is done in full view of somebody, openly, or defiantly: *“Have you a match to light the gas with?” - “There's a box of matches right **under your nose**”* (ODEI 1993: 571). In figure 7 a nose is depicted as a ground in the situation of somebody's presence, while the necessary object, which a person doesn't see, is represented as a figure.

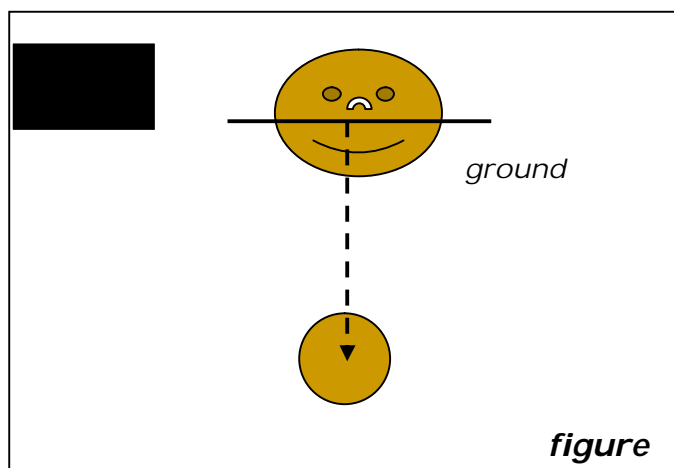


Figure 7. The static position of a ground with the preposition “under”

4.3. The human body part as a larger object

Sometimes the viewer's attention is focused only on the upper area of the human body. It makes the entity conceptualized as an object with a horizontal upper surface or as a plane. In these situations the surface of a body part becomes prominent against the background of the whole entity. It is possible to distinguish both static and dynamic spatial relations here.

An object can be located on the surface of a body part like head or nose. *On your (own) head be it* expresses “what somebody intends to do is silly and he must accept the blame or responsibility if it goes wrong”. This phrase meaning is underlined by the sentence: *If you don't want to take out any insurance,*

OK, but **on your head be it** (CIDI 1998: 183). A close contact between the figure and the ground (the surface of the head or nose) is also expressed by the other phrase *on the nose* "exactly right, often an exact amount of money or time" as it is represented in the following example: *We arrived at three o'clock on the nose* (CIDI 1998: 274). The obvious difference between the figure and the ground is explicated in figure 8.

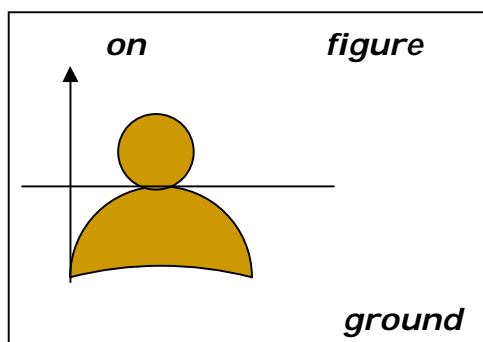


Figure 8. The Contact between the figure and the ground

Dynamic spatial relations are indicated in the idiom: place (set) a price on (upon) somebody's head "to offer a reward for somebody's capture or killing": I knew a price would be set **upon my head** and I had to remain here in the midst of my enemies as the only protection of a man of eighty-five (Kounin 1984: 603). In dynamic spatial relations preposition in may denote the movement of an object into a limited space adjacent to a body part, conceptualized as a surface (see figure 9), e.g.: cast / fling / throw something in somebody's face: "You always **throw your money in my face**", he said passionately (CIDI 1998: 257). The phrase to throw something back in somebody's face means "to refuse to accept smb's advice or help in an angry or unpleasant way": Each time I make a suggestion she just **throws it back in my face** and says I don't understand (CIDI 1998: 124). Negative connotation of these phraseological units is based on extra-linguistic factors: an object thrown into a person's face is regarded as challenge, reproach or insult.

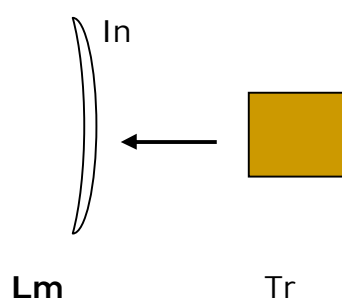


Figure 9. The trajectory movement to the surface of the body part

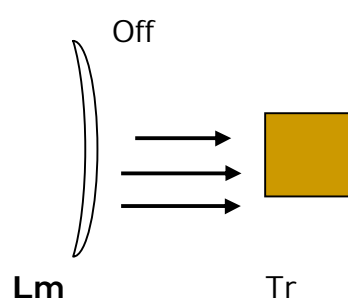


Figure 10. The trajectory movement off the surface of the body part

The informal phrase *(be) no skin off one's nose* corresponding to "something about which one is not concerned, or does not care, because it is not inconvenient to one or benefits one according to the social situation": *You can sit in the hall and wait for my boss as long as you like – it's no **skin off my nose*** (WDI 1993: 335) represents the skin on the nose as an object moving

from the surface of the organ of smell. It is proved by the meaning of the preposition *off* and the disappearance of the contact between the landmark and the trajectory (see figure 10).

5. Conclusion

To summarize, the study of human body parts on the material of English phraseological units gives the evidence of the following:

1) Language is closely connected with other cognitive processes (perception, object recognition with its characteristics and vision in space, its conceptualization and categorization). Spatial cognition plays the leading role in encoding our knowledge about space, human thinking and language processing. This knowledge dominates, though it also refers to our social and psychological experience.

2) In discourse the author combines words according to his pragmatic needs. He structures their conceptual content semantically and functionally, profiling those features existing in his mind as part of encyclopedic knowledge relevant for the description of some particular domain in a communicative situation. The model of semantic compositionality of word meanings in construction process illuminates our world understanding and its interpretation.

3) Phraseological or idiomatic units, as the most colourful and expressive part of the language vocabulary, represent conceptual dependence of their components upon the cultural knowledge, our understanding of the world and level of stereotyped way of figurativeness combined with variability of their elements in discourse. Set expressions with human body parts reflect the peculiarities of spatial perception, conceptualization, bodily, emotional and socio-cultural experience. The development of thought exists in connection with environmental changes and "ties mind inextricably to body and environment" (Johnson, Rohrer 2007: 22). The greater part of idiomatic expressions is constructed on the basis of image schemas representing ongoing interactions, some of them are combined in our topological neural maps. They ground the integrated meanings of unified wholes in our embodiment language experience.

4) The CONTAINER image schema may be represented independently in analyzed units and in this case it is described as a bounded region with the other object inside or outside it, moving objects inside or out of it, on the basis of part-whole relations. The human body part may be also conceptualized a point or surface. The CONTAINER image schema is integrated with the SOURCE-PATH-GOAL schema in the process of changing places and states.

5) The conceptualization of human body parts is confined to a limited number of topological classes and it is quite natural, because otherwise may be, there wouldn't be enough means in the language to describe the whole variety of spatial relations biased together with social and emotional experience. Units of phraseology like lexical items offer fascinating evidence about our human

conceptual system organization. The structure of spatial concepts first and foremost emerges from our interaction with the physical environment.

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