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**Theme: THE THEORY OF MENTAL LEXICON AND ITS INTERPRETATION IN  
MODERN LINGUISTICS**

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## CONTENTS

Introduction .....	3
Chapter 1. Interrelationship of the language and mental lexicon	
1.1 Viewpoints on the nature of mental lexicon .....	9
1.2 The structure and organization of mental lexicon.....	14
1.3 Interrelationship of mental lexicon and culture .....	22
Summary of Chapter 1 .....	33
Chapter 2. Interpretation of mental lexicon in cognitive linguistics	
2.1 Categorization and conceptualization as a basic operational units of mental lexicon	
35	
2.2 Conceptual metaphor as a universal mental tool .....	47
2.3 Concepts as basic units of mental lexicon .....	59
2.4 Frame analysis as a tool for concept description .....	67
Summary of Chapter 2 .....	75
Conclusion.....	77
The list of used literature	79

## Introduction

The Resolution of the President of the Republic of Uzbekistan issued in December 2012 “On measures for further improvement of the foreign languages’ learning” states that the system of teaching and learning foreign languages in this country is aimed at upbringing of the younger generation as harmoniously developed, highly educated and progressively thinking people able to ensure the integration of the country into the world community.

However the analysis of the current system demonstrates that the educational standards, teaching programs and textbooks are not in keeping with the modern requirements, especially in the area of using advanced information and media technologies. Training is being conducted in traditional methodology which needs to be upgraded to meet the requirements for continuous education and upgrading teachers’ skills as well as provision with modern training materials and facilities.

These tasks lead to the reconsideration of the methods and contents of teaching foreign languages. One of the training areas to be promoted is linguocultural education which helps to better integrate foreign languages’ students into the cultural world of the people the language of which they study.

At present, the attention of scholars, whose interests include the study of language and, in particular, the lexicon, is directly focused on the language user, whose existence in the world is inseparable from the language.

Recognizing the importance of the “human factor” in the study of the language is caused by a general interest in “human personality”, by a disappointment in the “rationality” of scientific cognition, practically excluding alive and unpredictable features of a man, his complex psychological, historical, social and linguistic nature. Nowadays the process of changing of the image of science is observed. Modern directions in science depart from the naive notions about its “absolute objectivity”, the possibility to use the scientific results “purely”.

Summarizing the results of “new paradigm” in linguistics established by the end of

XX century, it should be recognized that the role of man in the processes of generation and perception of meaning, represented by the language, is impossible to ignore, howsoever desirable it would be to create an “objective” linguistics, devoid of the influence of subjective activity of the individual.<sup>1</sup>

The existence of different viewpoints on the nature and structure of mental lexicon requires deeper contemplation. At the current stage of studying the features of this phenomenon, a generalization of the knowledge acquired in the cognitive sciences, linguistics, logic, philosophy, psychology, as well as experiments, is particularly important. Thus, the investigation of such phenomena is very actual nowadays.

The development of psycholinguistics and other human sciences has stimulated interest in the organization of “the dictionary in the head” of the individual, functioning in accordance with the laws of human mental development

- the carrier of language and culture. Such a dictionary is called mental or (internal) lexicon of the man.

Thus, the topicality of this research is defined by: 1) the increasing role of “human factor” in the language study; 2) the surge of interest to mental lexicon researches in various sciences where the new views on the problem of its nature and structure find their reflection in this work, which also adds to the topicality of this research.

The aim of this thesis is the interpretation of the theory of mental lexicon through the development of linguistics.

To reach this aim, we suppose fulfilling the following tasks:

1. To present the theoretical foundation of interpretation of mental lexicon in various schools and fields of study;
2. To analyze the approaches to organization and structure of mental lexicon;
3. To reveal and describe categorization and conceptualization as operational language mechanisms which generate mental lexicon;
4. To consider the ways of representation of the concept FIRE as an operational unit of the mental lexicon;

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<sup>1</sup> Пищальникова В.А., Сорокин Ю.А. Введение в психолингвистику. - Барнаул, 1993.

5. To investigate conceptual metaphor comprehension as a connectionist approach to implications for the mental lexicon;
6. To expand and develop the frame semantic analysis of the concept HEART in mental lexicon as represented in phraseological units.

The object of this research is the human mental lexicon, and the subject is the specificity of its units to warrant their functional importance in the processes of learning and communication.

The methodological approach of our research has been based on many works in the field of cognitive linguistics, psycholinguistics and psychology. In the last decades the special attention is paid to the researches of concepts within the framework of organization of human knowledge. These problems are outlined in the works of such scientists as Kubryakova E.S., Lakoff R., Zalevskaya A.A., Wierzbicka A., Rosch E., Lakoff G., Karasik V. I., Stepanov Yu.S., Vorkachev S.G., Popova Z.D., Sternin I.A., and others.

To conduct our research we used the following methods:

1. the method of descriptive analysis where we analyze the dictionary interpretation which has been carried out of dictionaries;
2. the method of conceptual analysis, for revealing the semantic peculiarities of the words FIRE;
3. The comparative and typological method, for defining additional conceptual features of the conceptual metaphors BUSINESS IS SPORT, WIND IS CHANGE;
4. The analysis of the phraseological units with the word 'heart' with the aim to reveal the cognitive structure of the concept HEART as represented in mental lexicon.

The language material for our research we collected from a variety of dictionaries, mass media, proverbs, sayings, quotations and literary texts.

The scientific novelty of this research is reflected in the cognitive approach to investigating mental lexicon in its correlation with human mind, as well as revealing its possible organization, peculiarities and interrelation with the language.

In this thesis, we tried to:

1. Within the framework of such linguistic sciences as semantics, psycholinguistics and cognitive linguistics we investigate the notion of the mental lexicon;

2. In this research we attempt for the first time to describe the notion of mental lexicon in terms of different scientific approaches and define its structure;

3. We also tried to reveal the structure of mental lexicon in the correlation to its basic units - concepts, symbols, mental representations, etc.

The theoretical value of this research is as follows: the research is conducted in close relationship with such disciplines as: cognitive linguistics and psycholinguistics and the results of research can make a certain contribution to the development of the theory of mental lexicon.

The practical value of this work is that its results can be used during the lecture courses and seminars in Cognitive Linguistics, Semantics, Stylistics, Lexicography. The results of the research also make a contribution to linguistic didactics - when teaching a foreign language.

The hypothesis of our research is that a mental lexicon has a complex structure representing knowledge about the world, reflecting stereotypical attitudes of the society and individuals and subject to changes mirroring culturally significant transformations.

The reliability and validity of the results of this research is defined by the methodological approach to the material studied, as well as the analysis of an extensive amount of the theoretical and practical language material which taken together confirmed our hypothesis.

The following assumptions are submitted for defense:

1. Mental lexicon a kind of repository containing and processing the knowledge about words and their equivalent units that include linguistic, encyclopedic and extra-linguistic knowledge;

2. The linguistic representation of the units of mental lexicon can be carried out at all levels of language;

3. The most effective methods of the research of the units of mental lexicon is

considered the method of conceptual analysis including such methods as descriptive analysis, analysis of syntagmatic and pragmatic relationships, and contextual analysis.

The approbation of the results of this research was held at the conference «Замонавий тилшунослик, адабиётшунослик ва хорижий тиллар уқитишнинг муаммолари» conducted at UzSWLU in 2012.

The main points and the results of this research were published in the article “Functional and stylistic features of English newspaper headlines”.

The structure of this thesis consists of introduction, two chapters with summaries, conclusion and a list of used literature.

Chapter 1. Interrelationship of the language and mental lexicon 1.1 Viewpoints on the nature of Mental Lexicon

Until recently the term lexicon has not been awarded by extensive use in linguistics. So, in Linguistic encyclopedic dictionary there is only reference to “the way of organizing the material of all dictionaries of linguistic terms, which are divided into: actual dictionaries (lexicons) - alphabetical or thematic registers of terms of different degrees of informativeness - and thesauruses that fix the semantic relationships between terms”.

In Collins Cobuild English Dictionary was recorded that lexicon of a particular subject area is a set of terms for this subject; lexicon of the individual or a group are all the words that they use.

Focusing on the fact that lexicon is system, collectively created as a social and linguistic group, later changed by its language user, in order to express his individuality is important, therefore, the term “lexicon” is implied as a collection of words, created and / or used by an individual or a group.

Such an understanding of the vocabulary is closely linked to the three-tier model of linguistic identity in the Karaulov’s conception:<sup>2</sup>

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<sup>2</sup> Караулов Ю.Н. Основы лингвокультурного тезауруса русского языка // Русское слово в русском мире: сборник статей. МГЛУ - Калуга: Эйдос, М.: 2004. - С. 244 - 296.

- lexikon - level of possession of natural language, the level of linguistic units;
- semantikon - a picture of the world, including notions (ideas, concepts);
- pragmatikon - activity-based communicative requirements (goals, motivations, interests, attitudes, intentionality)

One of the points of intersection of linguistics, psycholinguistics and cognitive science is an abstract object applied as the notion of inner speech or mental lexicon. The correlation of language and thought, meaning and sense, mental representations and types of knowledge structure, individual and social knowledge are inseparably connected to mental lexicon.

It is known that structure and system of inner speech and speech generation mechanism are formed on the basis of speech which is perceived externally. As V. Kintsh noted that in psychological terms language can be defined as a linguistic memory, containing the results of its individual communicative experience. Kubryakova points out, that fixation impacts not only the words but also all the other elements of the language, form the base of what we call knowledge of the language and more precisely should be called language (rather than verbal) memory, or - in a more specific sense - internal lexicon. The modern concept of the internal lexicon is based on the fact that the key to most of the problems posed by the time about the types of knowledge in the human mind, the structure of this knowledge and its organization - understanding and describing the phenomenon of memory, formulation the hypotheses about its structure and operational capabilities.

In conceptual system the concepts are widely represented that belong to opinions and knowledge, arrangements and assessments, understanding the aims of cognition and methods of its perception, also the necessity or possibility of receiving a certain knowledge about the world. This notion proves that conceptual system is much richer and much more diverse than the semantic system of the language includes. If we look at this system from scientific point of view as on the collection of knowledge organized according to the volume of knowledge and according to the types of this knowledge, it can lead us to an idea of a kind of thesaurus which we might have in our mind. Finally, if



memory is the “storehouse” of all the images which might be remembered in the absence of the object, in this sense it can be assumed that mental lexicon is the set of knowledge grouped “around” this word, and all the information which flow out the cognition, its connection with other words and other operational units of consciousness (concepts).<sup>3</sup>

According to F. Johnson-Laird the term “mental lexicon” was invented by G. Miller. Miller described mental vocabulary as completely different from our ordinary printed vocabularies. He pointed out that such mental vocabularies might contain a lot of primitive concepts that do not have conventional and simple definitions, moreover words in these vocabularies are presented in connection to each other, and they do not stand separately as in primitive vocabularies.<sup>4</sup>

While P. Thagard writes: “The set of words in the dictionary- are called the lexicon, therefore, the collection of words or concepts that are represented in the mind, is called mental lexicon.” It is organized hierarchically, and in addition to mentioned units it can be assumed that it is also a reflection of grammar rules, while learning the language means mastering its whole conceptual system and it is closely associated with all levels of language, where cognitive grammar representatives insist that there is no strong opposition of lexicology and

7

grammar.

Giving definition to the term “mental lexicon” as the component of grammar that includes all phonological, morphological, semantic and syntactic information, K. Emmorey and V. Fromkin describe these representations in details, precisely how this information is received by the speakers. In this regard mental lexicon presented by different types of representations for each of its units; therefore it is

of modular character (i.e. broken into separate subcomponents or modules).

In contrast, B. Levelt interprets the mental lexicon as a repository of information (knowledge) of declarative type about the words as lexical units that

<sup>3</sup> Кубрякова Е.С. Язык и знание: На пути получения знаний о языке: Части речи с когнитивной точки зрения. Роль языка в познании мира. Издательство: М.: Языки славянской культуры, 2004. С. - 312.

<sup>4</sup> Miller, G. A. & P. N. Johnson-Laird Language and Perception, Cambridge: Harvard University Press, 1976. - p. 71

are necessary for the expression the conventional values, highlighting lemma as the basic units of the mental lexicon that posses not only lexical and grammatical meanings, but also pragmatic ( precisely personal sense).

Kubryakova E. S. defines the term “mental lexicon” as (from the Greek. Mental; from Lat. Lexicon) a complex system reflecting the language ability of knowledge about words and their equivalent units, as well as performing complex functions associated not only with the specified language units, but extra linguistic entities, views and (encyclopedic) knowledge.<sup>5</sup>

Marseille W. Wilson emphasizes that mental lexicon is a central processing system of language. Its value is equally important as for generating as for understanding the speech, even though the participation of speech and mental representations of knowledge about the words in these processes is differ.<sup>6</sup>

The problem of investigating the human lexicon has a long tradition in psycholinguistics as well. In the 60-70 of XX century mental lexicon was described as the list of words in a long-term memory, as a kind of repository of words where these words are chosen according to their associations or their lexical position. Later lexicon was described as a complex organized structure with the variety of units that are connected on different bases meant for a quick search of a word. Gradually scholars arrive at a conclusion that organization of storage of units in the memory is highly complex, and there are many principles on its basis.

Thus, M. Garman defines the units of the mental lexicon as a) representation of the words (the lexical meanings), b) the representation of word forms (grammatical meaning), and c) the relationship between the meanings of words and general knowledge (claiming semantic meaning of the conceptual information as the property of the individual, but not general knowledge as the property of a society), in the development of language comprehension questions “put” mental lexicon in the area of the semantic level.

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<sup>5</sup> Краткий словарь когнитивных терминов. Сост. Е.С. Кубрякова, В.З. Демьянков, Ю.Г. Панкрац, Л.Г. Лузина. М., 1997. - С. 97

<sup>6</sup> Marslen -Wilson W.D. Mental lexicon II International Encyclopedia of Linguistics. -Vol.3 New York, 1992. - P. 273-275.

7

Existing viewpoints on the nature and definition of mental lexicon were expanded in Zalevskaya A.A. works. She points out that “in a broad use of the

19

term “lexicon”, the unanimous interpretation of this notion is still absent”.

Frequently lexicon is described as individual vocabulary, representation of words in the long-term memory or as the storage of words in the memory. Zalevskaya herself describes mental lexicon as a set of connections (associations) between “inner words” (percepts) and codes of semantic features (meanings), and

also cognitive structure of language knowledge fulfilling complex functions that

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provide these connections.

Scholars define mental lexicon differently: as “the process”, “as semantic depository or semantic memory”, as “all that speakers know about separate words and morphemes”, as “a mental formation that stores the knowledge about the names of things, features, actions, and other fragments of the world”.

The organization of the lexicon, apparently, should correspond to the optimal ways to store the information through verbal associative net of interconnected units.<sup>8</sup>

Keen interest to the word in psycholinguistics, cognitive psychology and cognitive linguistics, made the discussions in various aspects topical. of what is meant by the term “mental lexicon”. Therefore, the formulation of a common definition of the term “lexicon” was required. The mentioned above definitions are more or less complete, depending on the purpose they are intended, and what aspects of the mental lexicon are taken into account.

## 1.2 The Structure and Organization of Mental Lexicon

A great deal of efforts have been made in the field of theoretical linguistics, focusing on how the human vocabulary, technically known as the mental lexicon, works.

<sup>7</sup> Michael Garman, *Psycholinguistics*. Cambridge: Cambridge University Press, 1990.

<sup>8</sup> Караулов Ю.Н. Показатели национального менталитета в ассоциативной сети // Языковое сознание и образ мира. М.: ИЯ РАН, 2000, - р. 191-206.

Its underlying mechanism is complicated. Since we do not really have any microscopic technology by which we could locate the position of the mental lexicon in the brain, and see how its entries are linked with each other, we have to map it out theoretically to understand its complex mechanism.

Different theories about the structure of the mental lexicon have been proposed in last few decades in the fields of psycholinguistics, cognitive psychology, and language acquisition.

Nowadays, one of the ideas regarding the organization of the lexicon is that words are stored in a semantic network. Psycholinguistics refers to the representation of words in permanent memory as *internal lexicon* which is also called *mental lexicon*. Aitchison used to compare the mental lexicon to a book.<sup>9</sup>

However, there are great differences between words in human mind and words in a book dictionary with a regard to its content, organization and retrieval. With regard to content, the number of words in a book dictionary is fixed, but for mental lexicon it is by no means fixed and there are far more information about each entry. Secondly, the words in book dictionaries are most likely to be organized in an alphabetic order: from A to Z. But evidence from speech errors indicates that human beings' mental lexicon is not organized in the same manner.

The lexicon is under many pressures: words have to be able to be pronounced, transmitted, processed and decoded, and they have to be acquired by new speakers; the representations of the lexicon have to be stored in the brain in such a way that there are connections between the different aspects of a single word as well as over whole categories of words; words and the relationships between them need to allow people to communicate concepts and their relationships.

The notion of a mental lexicon according to cognitive linguistics approach implies that lexical and mental units have to be considered to complete the picture. Yet, to equate lexical units with mental units is not enough, since this locates lexical entries deeper in

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<sup>9</sup> Aitchison, J. *Words in the mind: An introduction to the mental lexicon*. Third edition. Melbourne etc: Blackwell Publishing, 2003, - p.106.

the mental world of speakers, but does not bring us closer to its nature. The idea to parallel lexical units with mental units mainly emphasizes the fact that linguistic expressions are essentially linked to mental processes, and that language constitutes a part of our cognition, without being divided from it or creating an independent subsystem within it.

Hence, to investigate linguistic networks, one should keep in mind that these systems are rooted in an overall cognitive system, and that both interact with each other on diverse levels. What such relations and interdependencies look like, is one of the great questions of cognitive linguistics (and psychology) still to be answered. The mental lexicon of a language is defined not only as storing all lexical items available in a language. In addition to this function, it systematically organizes meanings and forms, and somehow links related meanings and forms to one another to enable communication. The principles of economy and efficiency underlie communication as a highly complex social action, so that the construct of a mental lexicon is also based on these principles, since it developed from the need of valuable communication.

So, what speaker exhibit is better to call “communicative competence”, extending Chomsky’s idea of linguistic competence. What can be implicitly understood from this notion is that social meaning is a factor not to be disregarded or excluded from the investigation of meanings in general, and especially of nonliteral and figurative meanings as parts of the mental lexicon. Speakers are offered linguistic choices between several linguistic expressions to communicate what they intended to communicate, although decision making is to a certain degree influenced by their language with its fixed expressions, and lexicalizations which are easier to access or automatically available. Nonetheless, the choice of one way of expressing the intended meaning over another is also a social one.

Furthermore, relationships between basic, prototypical meanings of the linguistic material and their non-prototypical senses and figurative usages are at least partially a result of the cultural organization of personal experiences. These effects are recognizable and available for members of a community, sharing the same knowledge, and cultural

background, while outsiders fail to access the whole collection of information stored in the mental lexicon.

Zwitserslood described linguistic units as mental units interlinked and stored in the lexicon in a long-term memory. Semantic memory is understood as a “network of concepts, interconnected by means of labeled arcs which specify the relations between concepts”.<sup>10</sup>

These serve as basis on which a mental lexicon operates, using some but not all of the existing concepts for linguistic meaning creation and organization. This mental level of words provides an interrelated, bound subsystem of cognition without constituting an individual and somehow autonomous module. Hence, analyses of linguistic meanings are dependent on or at least influenced by features of organization and the processibility of conceptual structure. While lexical structures in the mental lexicon are not completely random or senseless.

Research on the structure of an individual’s mental lexicon has shown that among the set of concepts belonging to a single semantic field, there is typically one particular concept that stands out. The processes of storage, identification, and retrieval of this concept are faster and more successful than they are for the others.

For example, in the vertical hierarchy of the concept *fruit—apple—antonovka*, *apple* plays this type of lead role and also occupies the most prominent position in the horizontal series *apple—pear—plum—cherries—orange*. Concepts with such characteristics are referred to as basic, source, or primary concepts.

It was supposed that the basic level is occupied by generic names, which are at the center of the hierarchy. In the languages of the world this level contains the most terms and the terms that are the most useful. Thus, terms at this level provide greater discriminative ability than the hierarchical levels above it as well as simpler names (a simpler classification system) than the levels below it.

Agreeing with this point of view, E. Rosch and her colleagues add that generic

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<sup>10</sup> Zwitserslood, P., & Gaskell, G. Lexical Representation: A Multidisciplinary Approach. In: Gaskell, G., & Zwitserslood, P. Lexical Representation. Berlin: De Gruyter, 2011. - p. 104.

names are, on the one hand, relatively close to each other in semantic space (as compared to the names at the higher levels), and, on the other hand, are relatively far away from representatives of neighboring categories (as compared to the names at the lower levels). The use of generic names is most convenient, expedient, and frequent, and, for this reason, children learn these terms earlier than the more general or specific terms at other levels.

The viewpoints on the organization of the semantic field as components of an individual's mental lexicon studies performed on concrete words have made it possible to identify primary concepts, which occupy a favored position in the semantic field. These constitute the starting point and center around which the entire field is structured according to the principle of complexes ("family resemblances"). The imaginative nature of the generalization underlying the formation of a complex leads to a situation where a meaning logically subsumed under a particular complex (cf. "a chicken is a bird") may not be part of this complex but forms a separate semantic complex. The system of logical generic specific hierarchies that forms later, under the influence of this school, is superimposed on the first without replacing it. This viewpoint, which follows from

17

the experiments and theoretical generalizations of Vygotsky L.S.

In establishing what kind of connections and relationships between the units of the lexicon are the most typical, there is a definite shift of emphasis. For example, Aitchison J., points out that there is a large place between hyponyms and superordinates (for example, color terms are brought under the label of "color"). Superordinate terms (often also called 'hypernyms,' *'anaphoric nouns,'* or *'discourse-organizing words'*) are nouns that can be used to stand for an entire 'class' or 'category' of things. Thus, a superordinate term acts as an 'umbrella'

term that includes within it the meaning of other words. For example, 'vehicle' is

18

the *superordinate concept* for 'lorry', 'automobile', 'bicycle', and 'tram'. However, for the mental lexicon superordinates are not so important except the certain well- defined

cases.<sup>11</sup>

Most often coordinated members are used as a reference to the category rather than superordinates: most people speak about “brothers and sisters” than “children of the same parents,” the “rain and snow” than “rainfall patterns” and etc. The most important for the mental lexicon presented its collocation of communication (i.e., set phrases) and coordinated communication between members. Additionally, studies show links between words that speakers of native language remember lexical items in a context as thematic groups. It follows that the words are not so interchangeable, as is generally assumed.

Levelt proposes a model of how words are stored as information specific network. This model presupposes three levels, the conceptual level, the lemma level and the lexeme or sound level. On the conceptual level concepts are stored, and concepts that are conceptually similar are related to each other within this conceptual network. For instance, goat and sheep are related, because they are both animals and give milk. These concepts are also related to corresponding lemmas. On the lemma level the syntactic properties of the words whose meaning are the concepts become available, e.g. that ‘sheep’, which is the English word for sheep, is a noun. The lemmas are also stored in the form of a network. The connections of this network are based on the categories of the lemmas. For instance, all nouns are related to each other on the lemma level, as are all verbs, etc. The lemmas are also connected to the sound level. On this level the sounds that make up the words corresponding to the concepts are stored. These are also interrelated, for instance words that have the same number of syllables are related on the lexeme or sound level<sup>12</sup>.

Evidence that words are stored in this way comes from semantic priming studies and lexical decision tasks. These studies show that participants respond faster and more accurate if the prime is related to the target word. There are a lot of different theories on the storage of words. The main problem with all these different theories is that it is

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<sup>11</sup> Aitchison J *The language Web: The Power and Problem of Words*. 1996 BBC Reith lectures. Cambridge, New York, Melbourne: Cambridge University Press, 1997.

<sup>12</sup> Levelt, W. *Lexical access in speech production*. Blackwell, Cambridge Mass. 1993



difficult to find evidence for a proposed model of a  
<sup>Λ 1</sup>  
 stored word.

Mental lexicon, according to the descriptions of numerous experiments in psycholinguistics, is presented like a complex multi-layer system of intersecting fields, which are ordered on various grounds, as information about the phenomena  
<sup>ΛΛ</sup>  
 of reality and linguistic units associated with them.

This assumes the presence of multiple intersecting hierarchies, which include one or another unit of the lexicon for each of its characterizing features. “The authors cited a “vertical” and “horizontal” order of elements of the lexicon and their interaction, when the elements of each layer or sublevel are included in the linear relationships of different lengths, thereby providing contacts between the various hierarchies”.

Zalevskaya A. A., having discussed J. Aitchison’s ideas, believes that mental lexicon as a whole is “a complex network of relations linked to the vast amount of knowledge in our mind, while it is not possible to say where the meaning of the word ends and the knowledge about the world begins. Since, each word is  
 connected to many other words and to the general information in our mind, all  
<sup>п-5</sup>  
 these links, in a certain sense, are the sum of what we understand by a word”.

In the light of the above mentioned suggestions it is possible to speak about E. Tulving’s conception of temporal component of the thesaurus of the individual, which is defined in terms of content structure of episodic and semantic memory. Episodic memory refers only to events, where a person was a direct participant. E. Tulving wrote that episodic memory helps us to remember those events which we have personally experienced or have witnessed, while semantic memory contains knowledge of different types. Due to semantic memory, we know that Eifel Tower is the sight of Paris and that Paris is the capital of France, while, due to episodic memory, we can remember our trip to Paris, and everything that is associated with it.<sup>13</sup>

In E. Tulving’s opinion, episodic memory is the source of our selfknowledge.

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<sup>13</sup> Tulving, E. Episodic memory: From mind to brain. Annual Review of Psychology, 2002 - p. 1-25.

Episodic memory is different from semantic by its reflexive character. The author compares episodic memory to a form of mental travel in subjective time. Semantic memory is of a mediated character, and represents a systematic knowledge of a person about words and other language symbols, their meanings, about what they refer to, the relationship between them, rules, formulas and algorithms for manipulating these symbols, concepts and relationships.

Thus, the mental lexicon is not to be paralleled with a dictionary, the organizations differ in complexity and arrangements. The size of the mental lexicon is at present unknown, our vocabulary is estimated between 10 000 and 100 000 words. However, based on some research this number can be as high as several hundred thousand, in case of a professional speaking several languages and experienced in several domains.

The organisation of the words in the mental lexicon is not random; its structure follows several organising principles at the same time. One of the theories of organization of mental lexicon is that it consists of three levels. The most likely description of the system at present is Zalevskaya theory. Based on this theory we can conclude that the words are in connection with one another.

## 1.2 Interrelationship of Mental Lexicon and culture

Naturally, each nation has its own peculiarities in social and work experience, which are reflected in the differences of lexical and grammatical categories of nomination of some phenomena and in the processes of the compatibility of certain values, in their etymology (the choice of the initial feature for the nomination and the formation of the word). “generally language does not impose on us this or that perception of the reality, in contrast, it is the reality that is differently reflected in different languages by virtue of non-identical conditions of material and social life.”<sup>14</sup>

Moreover, the absence of certain material objects in a particular society may explain the absence of appropriate denotations in the language designation of the objects in a particular geographic region. Classic examples of this can be the designation of colors,

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<sup>14</sup> Мечковская Н.В. Ранние восточнославянские грамматики. Минск, 1984. - 160 с.

animals, vegetation, water reservoirs - they really prove only one thing - the system of choice feature designations according to social and work experience of the team, but not the system of generation of these features.<sup>15</sup>

Interesting data on mental lexicon has come from cross-cultural studies in color categories. Some cultures have terms for a wide variety of colors. In Western Europe there is diversity from “magenta” to “sky-blue”. Other cultures have very few terms. “Blue” and “green” tend to become merged together with increasing proximity to the equator. In extreme cases one word is used to name “black”, “blue” and “green”. In Papua New Guinea there are only two color terms for black and white to show all the diversity of colors around.

Color categorization consists of the division of color sensations into classes corresponding to the significata of the color words of a particular language. Perceptual color categorization consists of the division of the color sensations into classes by the perceptual processes of an organism -- human or nonhuman, adult or neonate, possessed of knowledge of a language or not. Conflict among views on the relationship of lexical to perceptual color categorization has prevailed for over a century.

Nineteenth-century classicists, anthropologists, and ophthalmologists were aware that all languages do not reflect identical lexical classifications of color. The classicist William Gladstone concluded that differences in color lexicons reflect differences in perceptual abilities, for example, “that the organ of color and its

impressions were but partially developed among the Greeks of the heroic age.

The ophthalmologist Hugo Magnus recognized that failure to distinguish colors lexically does not indicate inability to distinguish them perceptually. These and other late nineteenth-century scholars strongly tended to view differences in color lexicons in evolutionary terms.

In the 1920- 1940s, Edward Sapir and B. L. Whorf rejected evolutionism for the doctrine of radical linguistic and cultural relativity. The favorite field for the empirical

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<sup>15</sup> Колшанский Г. В. Объективная картина мира в познании и языке. — М.: Наука, 1990. — С. 25

establishment and rhetorical defense of the relativist view, which became established doctrine in the 1950s and 1960s, was the lexicon of color. With respect to color categorization, there have been two major traditions of research stemming from the relativity thesis: a within-language, correlational line of research and a cross-language, descriptive one.

Early work in the former tradition is primarily concerned with establishing a correlation between linguistic variable distinguishing colors (for example, how easy different colors are to name or how easy they are to communicate about) and a nonlinguistic cognitive variable over colors: memorability.

Discovery of such a correlation was interpreted as support for the Sapir- Whorf view that linguistic categorization can influence nonlinguistic perception/cognition.

In the 1950s and 1960s, such correlations were reported within English and, to a limited extent, in other languages. Because it was assumed at the time that the linguistic variable (codability or communication accuracy) would vary across languages, correlation between a linguistic and nonlinguistic variable within a single language (almost always English) was taken to validate the doctrine that the coding systems of different languages induce differences in the nonlinguistic cognition of their speakers.

Eleanor Rosch challenged this assumption on the basis of the apparent universal lexical salience of certain “focal” colors. Rosch showed that universal perceptual salience determines both the nonlinguistic and the linguistic variables of the correlational approach, thus undercutting the logic of this line of research.

In the tradition of cross-language description, the studies of the 1950s and 1960s reflected the dominance of radical linguistic relativism. These studies sought to discover and celebrate the differences among color lexicons. In 1969, using the original stimulus set of Lenneberg and Roberts, Berlin and Kay compared the denotation of basic color terms in twenty languages and, based on these findings, examined descriptions of seventy-eight additional languages from the literature. They reported that there are universals in the semantics of color: the major color terms of all languages are focused on one of eleven landmark colors.

Further, they postulated an evolutionary sequence for the development of color lexicons according to which black and white precede red, red precedes green and yellow, green and yellow precede blue, blue precedes brown, and brown precedes purple, pink, orange and gray. These results were challenged on experimental grounds, mostly by anthropologists and largely embraced by

psychologists. A number of field studies stimulated by Berlin and Kay tended to confirm the main lines of the universal and evolutionary theory, while leading to reconceptualization of the encoding sequence (Berlin and Berlin 1975; Kay 1975).

As was presented by T. Harley, there is a hierarchy of using the color terms in languages. If a language has two basic color terms available, they must correspond to “black and white”. The next color will be “red” etc. A hierarchy of colors is shown below:

	Black	White	
			Red
Yellow	Green	Blue	
			Brown
Purple	Pink	Orange	Grey

(Taken from: Harley, T. 1997. *The Psychology of Language*. Psychology Press. P. 344-345).

Modern etymological science restores the initial features of nominating phenomena conceived by a man from one side or another - almost necessary under certain conditions: whether at the shape, size, color, method of processing, usefulness or harm, danger or harmlessness, etc.

Exactly the human factor, in other words, the relationship of man to any object or phenomenon of the world at a certain stage of mastering the world and is explained not only by the subsequent choice of naming it, but also as a way of describing it, showing the practical use of the assets. The development of the nomination through the word usage (direct, imaginative, figurative) in phrases (as big as an elephant, hardy as a

camel, etc.), the development of the values of already drawn up words and phrases - all progress indicators in the practice, and after the theoretical cognition of the surrounding world.

Three issues stand out in the standard approach to the research on the relationship between language and thought. The first is the linguistic contents that have been the subject of the research. The second has to do with the assumptions about how one should understand language and cognition. The third arises from the fact that doing comparative research across different linguistic cultures introduces particular methodological problems that are very difficult to surmount. We address each of these in turn.

Investigations of the linguistic relativity hypothesis typically compare linguistic communities in terms of a categorical domain (e.g., color) or syntactic feature that is linguistically represented in these communities. When two linguistic communities differ in categorization (e.g., color naming), one can examine whether such differences affect nonlinguistic processes in a directly implicated cognitive domain (e.g., perception of color, memory of color). Several research questions are raised by such a comparative perspective.

*Language and cognition as representational and amodal systems.* The tacit treatment of language and cognition as inner representational systems leads the puzzle of inferential processes to become individual-centered. That is, language and cognition are assumed to “happen” within the individual and to remain disembodied, timeless and subjectless. This perspective is consequently not informed about a communicative or interpersonal context, which is the chief function that language serves.

In the functional view, language is for use. And in more general terms, language use is a “design process” that extends (and is the result of) the cognitive and motivational processes of a speaker with a view to focusing the attention of a listener on some aspect of social, physical or psychological reality. In other words, language is used in a communicative context with a view to structure the cognitions of an addressee. Obviously, this is an interactive process and not unidirectional. Seen this way, cognition

can refer to those processes that contribute to how a speaker shapes a communicative act (production processes); those processes that contribute to how a communicative act (a message) is received by an addressee (comprehension processes); and the entirety of communication itself, independent of the individual productions, as a regulator of joint action.

Researchers have come to agree on a less absolute version of the linguistic relativity hypothesis. They believe now that thinking is not entirely determined by the language we speak. Rather, *how* we talk about people, objects, or events may make us pay more or less attention to certain aspects of these events, people, or objects. In different languages, we find different linguistic elements that make it easier to communicate about certain events or objects. For example, English has a progressive form that allows English speakers to distinguish between ongoing events and events that have concluded (“I worked all afternoon” versus “I have been working all afternoon”). Some languages (e.g., German and Hebrew) do not have a progressive form. Speakers of these languages are still able to communicate about the temporal sequence and duration of events, but they have to make a greater effort to do so. A Whorfian may argue that distinguishing between the duration of events may not be as important in German- and Hebrew-speaking cultures but is more important in English-speaking cultures. In other words, if something is encoded in a culture’s language, it must be important. This milder form of the linguistic relativity hypothesis led many institutions in the United States, in recent years, to establish “politically correct” language. Many view this as a well-intended effort to change cultural meaning by changing language; others disagree.

Vygotsky claimed that cultural influence, mental processes, and language are dynamic processes that occur simultaneously. This means that constant social interaction with those around us helps shape the quality of mental abilities and language at various ages. With this theoretical perspective in mind, Vygotsky coined the expression, “*talking to learn.*” By this he meant that as children verbally interact with others, they internalize language and use it to organize their thoughts.

Other researchers go even further and suggest that as parents interact with their children, the children learn language and become socialized into a particular set of cultural values and beliefs. For example, in her extensive studies of language acquisition in a Samoan village, she showed the presence of two major ways of speaking the language: “good speech” and “bad speech.”

The latter contains fewer consonants and is mainly spoken in informal contexts. Good speech is used when speaking to strangers or in formal settings such as schools, church services, and when talking to a person of high status. Along with learning both “good speech” and “bad speech,” Samoan children learn about the social contexts in which using each “language” is appropriate. An interesting ongoing debate in the United States surrounds what used to be called “Black Vernacular English” or “Ebonics.” Ebonics is spoken almost exclusively among African-Americans and is learned in informal contexts rather than in formal schooling.

However, at any stage of its formation or development, language does not act as an independent creative force and does not create, consequently, its own picture of the world - it only fixes the conceptual world of man.

Investigating cultures and the relationship between language and culture often feels like starting out on a bold venture. In cognitive linguistics as well as in anthropology, various theoretical frameworks have elaborated models to grasp the complex notion of culture in relation to linguistic structures. The mental lexicon of a language opens one door for investigating how the links between cognition, knowledge organization and communication are intertwined.

The cognitive linguistics approach allows for, or even claims the interrelation of linguistic and encyclopedic knowledge, defining meanings as parts of the cognitive system directly linked to language use.<sup>16</sup>

For example, the meaning of the lexeme “heart” is assumed to be represented as the concept of HEART established via everyday experiences through time in a speech community. It includes - besides linguistic features - all kinds of information usually not

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<sup>16</sup> Vyvyan Evans, Melanie Green. *Cognitive Linguistics: An Introduction* Routledge; 2006.



considered to be linguistic.

Semantic units, meanings of lexemes are parts of cognitive domains, and thus fully involved in the cognitive system without constituting an independent mental structure. Encyclopedic knowledge therefore is an essential part of the mental lexicon, together with linguistic knowledge located at the level of conceptual structure. People take their culture and language with their categorizations of the world for granted, i.e. not like products for understanding the world. Rather, they are understood as tools to think and talk about reality just as it is. This is due to the fact that the whole speech community - as communication partners - shares this model and acts according to it, in general behavior and in linguistic behavior.<sup>17</sup>

Speakers acquire and use their native language, and with it the concepts and classifications included. They usually do not challenge how the world around them is affected and regulated by their speech. Since speakers use language first and foremost to communicate with each other, and not for consciously organizing the world or for being aware of each linguistic feature and its function, certain aspects remain subconscious.

There are thought to be around 7,000 languages in the world today, and they show tremendous diversity in structure. Some, such as Finnish, have complex ways of making composite words, whereas others, such as Mandarin Chinese, have simple, short and invariant words. Some put verbs first in a sentence, others in the middle and yet others at the end.

But many linguists suspect that there is some universal logic behind this bewildering variety — that common cognitive factors underpin grammatical structures. US linguists Noam Chomsky and Joseph Greenberg proposed two of the most prominent 'universalist' theories of language.

Chomsky tried to account for the astonishing rapidity with which children assimilate complicated and subtle grammatical rules by supposing that we are all born with an innate capacity for language, presumably housed in brain modules specialized

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<sup>17</sup> Cultural Models in Language and Thought Cambridge University Press, 1987

for language. He suggested that this makes children able to generalize the grammatical principles of their native tongue from a small set of 'generative rules' that are hardwired into how they think.

Chomsky supposed that languages change and evolve when the parameters of these rules get reset throughout a culture. A single change should induce switches in several related traits in the language.

Greenberg took a more empirical approach, listing traits that he observed to be shared between languages. Many of these concerned word order. For example, in most languages a conditional clause normally precedes its conclusion: "if he's right, he'll be famous". Greenberg argued that such universals reflect fundamental linguistic biases, which probably reflect basic principles of human cognition.

The mutual power of socio-culturally influenced exposure to the world and the way of talking about it is similar to the hen and the egg paradox. The linguistic classifications are indeed created by the speakers and their attempts to categorize the world around them. Yet, speakers are not conscious of their influence on their language as well as of the linguistic impact on their cultural concepts<sup>18</sup>

The (bidirectional) dependencies as well as the mutual interactions between language and culture determine to what extent culture is included in meaning creation. They also affect how speakers realize cultural influences in talking about the world and the things in it.

Moreover, cultures influence the organization and structuring of linguistic manifestations, resulting in variation in the classifications and semantic and conceptual networks in the languages of the world. Language, and foremost the lexicon in use with its fixed expressions, figurative language, and collocations, provides evidence for the reality of culture. It is exactly here that specific ideas, concepts, and relations are stored in an easily accessible form. At the same time, other ideas have not been considered worth lexicalization.

Thus, investigating the semantics of a language contributes to the understanding

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<sup>18</sup> Wierzbicka, Anna *Semantics, Culture and Cognition : Universal Human*, 1992.

of cultural meanings. Furthermore, it accounts for the implicit suppositions which are connected to them and which are implicitly understood by the community members, but not accessible to outsiders. To use Sapir's words: "Vocabulary is a very sensitive index of the culture of a people". There is one significant difference between the two: while cultures must be able to adapt to quickly changing conditions or environments instantaneously, languages need and do not without some time lag. Instead, linguistic meanings are extended or modified in the long-term.

First, they mimic the known (past) reality, before modified meanings are conventionalized and truly come to refer to the entities or ideas now found in one's culture. There exists a common basis for experiencing the world determined by human perceptiveness, and the experiences we are able to have. This is subsumed under the notion of "embodiment". From here on, variation appears due to differing individual experiences with the adjacencies, and diverse living conditions. These give rise to varying conceptualizations, and varying needs for certain expressions and lexicalizations, while other ideas, activities or entities are not realized as significant enough for being memorized in fixed expressions in the lexicon. In short, there are some meanings linguistically encoded in one culture or community, but not in others.

These differences are grounded in cultural models as assumptions and ways of thinking in relation to various environmental settings and differently realized experiences. The similarities found in many languages and cultures, on the other hand, mirror the universality of human conceptualization patterns. Equivalently, Wierzbicka states that linguistic universals provide the common groundwork from which variation found in the world's languages (and cultures) are developed.

Consequently, studying one of these two sides will also lead to a better understanding of the other one. If we comprehend forms, functions, and patterns of universals, we are able to infer characteristics of the culturally shaped variations found worldwide, and vice versa.

## Summary

The mental lexicon can be defined as a set of meaningful units stored in the mind/brain that are used to produce and understand the language. Not only words may be included into mental lexicon, it may include holistic signs of words, phrases, concepts and mental representations.

In E. Tulving's conception of temporal component of the mental lexicon of the individual is defined in terms of content structure of episodic and semantic memory. Episodic memory refers only to events, where a person was a direct participant. He emphasized that episodic memory helps us to remember those events which we have personally experienced or have witnessed, while semantic memory contains knowledge of different types. Due to semantic memory, we know that Eifel Tower is the sight of Paris and that Paris is the capital of France, while, due to episodic memory, we can remember our trip to Paris, and everything that is associated with it.

Retrieval of words from memory is done through the activation of mental lexicon. Activation is caused by attempts to map an idea into the words in memory. Sometimes meaning can't be mapped into the words and this causes the "tip-of-the-tongue phenomenon" when the meaning needs to be expressed but the form can't be retrieved from the memory.

Aitchison's theory about the structure of mental lexicon is that our knowledge about words is organized "in some sort of a dictionary". Although the analogy between the dictionary and the lexicon is often made is really only a base one. It is unlikely that the lexicon actually contains real definitions of any word but rather pointers to areas that contain these definitions, due to the universal assumption that the brain works as efficiently as possible in terms of space and it would be inefficient to store a definition within an already huge mental area if it is only based on previous perceptions of objects.

The organisation of the words in the mental lexicon is not random; its structure follows several organising principles at the same time. Aitchinson's theory about the

mental lexicon states that it organizes our knowledge about words close to dictionary. Levelt proposes three level organization of mental lexicon, which it consists of: conceptual, lemma and lexeme level. The most likely description of the system at present is Zalevskaya theory, which is the base one in our opinion. Concerning the semantics of entries, and hierarchal organization of mental lexicon, there is an agreement that entries are stored not in isolation but in close relations which each other.

## Chapter 2. Interpretation of Mental Lexicon in Cognitive Linguistics 2.1 Categorization and Conceptualization as basic operational units of Mental Lexicon

At the present stage of the development of the science it is generally accepted that the vast majority of the necessary information about the world (primarily scientific and theoretical) we perceive through the activities mediated by the language. Mental (internal) lexicon is analogue system designed to store,

organize and process information about the language, drawn from the experience.

Currently, concept is recognized as a key term in cognitive linguistics. However, despite the fact that the notion of a concept can be considered firmly established in modern cognitive science, the content of this phenomenon considerably varies in the concepts of different scientific schools and scientists.

The matter is that concept is a mental category, which is unobserved, and it gives a lot of space for its interpretation. The category of the concept appears today in the philosophical, logical, psychological, culturological researches, and it bears the traces of all these extralinguistic interpretations.

For the first time the term concept was used by Askoldov-Alekseev, in 1928. He described the concept as a mental formation, which replaces in the thinking processes uncertain set of objects, actions, cognitive functions of the same kind

38

(concepts *plant, justice, mathematical concepts*).

Approximately at the same time D.S. Likhachev used the term “concept” to

describe a generalized mental unit that reflects and interprets the phenomena of reality depending on education, personal experience, professional and social experience of its carrier and, as a kind of generalization of the different meanings of the word in the individual minds of speakers, enabling the speakers to overcome the individual differences in understanding the words.

Concept as seen by Likhachev D. S., does not arise from the meanings of words, it is a result of a clash of assimilated senses of personal life experiences of the speaker. Concept in this regard performs substitutive function in

39

communication.<sup>19</sup>

Kubryakova E.S. offers this definition of the concept: “Concept is an operational unit of memory, mental lexicon, conceptual system and language of the brain, the whole picture of the world; it is the quantum of knowledge. The most important concepts are expressed by the language means”.<sup>20</sup>

Karasik V.I. cites a number of approaches to the concept, being developed by different authors. The following are among them:

- concept is an idea, including abstract, concrete-associative and attitudinal characteristics, as well as a compressed history of the notion.<sup>21</sup>

- concept is a personal understanding, an interpretation of objective  
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meanings and notions as a meaningful minimum of the meaning. (Лихачев, 1977 p. 281);

- concept is an abstract scientific notion developed on the basis of specific everyday’s knowledge<sup>22</sup> ;

- concept is the essence of the notion revealed in its content forms - in the

<sup>19</sup> Лихачев Д.С . Концептосфера русского языка // Освобождение от догм. История русской литературы: состояние и пути изучения: В 2 т. Т. 1. М ., 1997. - С. 35.

<sup>20</sup> Кубрякова Е.С. 1992 - Проблемы представления знаний в современной науке и роль лингвистики в решении этих проблем // Язык и структуры представления знаний. - М., 1992. - С.4-38.

<sup>21</sup> Ю. С. Степанов. Константы: Словарь русской культуры. Опыт исследования. Школа "Языки русской культуры", - М.: 1997.

<sup>22</sup> Соломоник А, Семиотика и лингвистика, М, 1995.

image, in understanding and in symbols.<sup>23</sup>

- concepts are unique cultural genes included into the genotype of culture, self-integrative functional systemic and multi-dimensional (minimum three-dimensional) idealized formation, based on the conceptual basis or pseudonotions.<sup>24</sup>

Karasik V. himself characterizes concepts as “mental entities that represent perceived typified significant fragments of the experience in the memory of a man”<sup>25</sup>, “multi-dimensional mental formation which includes image-perceptual, cognitive and valuable sides”, “a fragment of life experience”, “experienced information”, “the quantum of experienced knowledge”<sup>26</sup>.

Zalevskaya A.A. defines concept as an objectively existing perceptual- cognitive- affective dynamic nature of formation in human consciousness in contrast to notions and meanings as products of the scientific description

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(constructs).<sup>27</sup>

In her last works she characterizes the neural basis of concept - activation of many individual neural networks, distributed on different parts of the brain, but included in a single set. Access to all these sites is carried simultaneously due to the word or any other sign. From psycholinguistic point of view Zalevskaya emphasizes the individual nature the concept, “multi-dimensional simultaneous structure. Concept is the property of the individual”<sup>28</sup>.

Vorkachev S.G defines concept as “operational unit of thought”, as “a collective knowledge unit (sent to the supreme spiritual entities) having a linguistic expression and marked by ethnic and cultural specificity” Scientist believes, if mental formation does not have ethno-cultural specificity, it does not refer to concepts.<sup>29</sup>

<sup>23</sup> Колесова Д.В. Концептуальный анализ художественного текста: подходы и перспективы // Язык и ментальность: Текст и концепт. Вып. 1 / Под ред. проф. В.В. Колесова. СПб.: Политехника, 2004. - С. 19-20

<sup>24</sup> Ляпин С.Х. Концептология: к становлению подхода // Концепты. Научные труды Центроконцепта. Вып!— Архангельск: Изд-во Поморского госуниверситета, 1997. - С. 16-18.

<sup>25</sup> Introduction to Cognitive Linguistics 2004, - p. 59

<sup>26</sup> Карасик В.И. Языковой круг: личность, концепты, дискурс. М.: Гнозис, 2004.- С. 128-364.

<sup>27</sup>Залевская А.А. Психолингвистический подход к проблеме концепта // Методологические проблемы когнитивной лингвистики. Воронеж: Воронежский государственный университет, 2001. — С. 36 - 44.

<sup>28</sup> Залевская А.А. Психолингвистические исследования. // Слово. Текст: Избранные труды. -М.: Гнозис, 2005.

<sup>29</sup> Воркачев С.Г.Счастье как лингвокультурный концепт.М.:Гнозис,2004 с.-236

Krasnykh V. defines concept as “the most abstract idea “of cultural object” that does not have a visual prototypical image, although visual-imaginative associations connected to it are possible”. National concept V. Krasnykh defines as “the most common, the most abstracted, but specifically represented idea of “subject” to (linguistic) consciousness, which undergone cognitive processing, the total valance of bonds, noted by ethnic and cultural markedness”; “a kind of folded deep “meaning” of the “subject””<sup>30</sup>.

Conceptualization is the process through which we specify what we mean when we use particular terms in research. We cannot meaningfully answer a question without a working agreement about the meaning of the outcome. Conceptualization processes a specific agreed-on meaning for a concept for the purposes of research.

Thus, from the viewpoint Cognitive approach, the concept may be defined as a mental formation with properly ordered internal structure. Its occurrence is associated with cognitive / cognitive activity of man and society, and the content is determined by the nature reflected in the mind at the level of mental entities of an object or phenomena of objective reality.

Thought operates the basic mental structured units - the concepts. Concept differs from the language verbalization by its universality and independence, by the lack of a rigid structure and its variability in time due to the changes of information about the world and its increasing volume. Depending on the assigned communicative goals, volume and quality of information transmitted in particular communicative act, one and the same lexical unit can represent various conceptual types. The variety of structures of knowledge representation in the human mind (concrete-sensory images, mental pictures, charts, frames, scripts, insights, propositions, gestalt, etc.) are the subject of many fundamental works.

Adhering to the different views on a typology of concepts, scholars agree that the main role of concepts in the process of thinking is the categorization of the real world by combining the objects on the principle of having a certain similarity in the appropriate

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<sup>30</sup> Красных В.В. «Свой» среди «чужих»: миф или реальность?. -М.: Гнозис, 2003. 269 с.



classes or categories.

Categories, in conjunction, constitute the “mental lexicon” of the individual, and have a number of features, the most significant of which are the following:

- 1) categories are the result of arbitrary division of the phenomena of the external world, they are based on the cognitive abilities of the human brain;
- 2) categories have fuzzy boundaries, neighboring categories merge into each other.<sup>31</sup>

A particular difficulty is the allocation of the essential characteristics of categories. In this regard two approaches coexist - logical and cognitive. The first comes from the Aristotelian understanding of the "essence" and "accidental" in the object. According to this approach, there is a hard set of basic and binary in their structure features or categorical properties required for something to be considered as a member of category. As a result, all the members of a category are equal. Any category has clear boundaries, because it divides reality into members inherent in this category, and not inherent in it. Such a classical approach to the interpretation of category, unfortunately, does not answer the question of how to deal with those members of categories, which do not have the necessary categorical property, however, are included in it.

Scientists have made a conclusion about the ordering of the world, and the categories are defined by them as mental objects reflecting the person's knowledge about the ontology, the essence of the world. According to the E. Roche's theory, the process of categorization is carried out through a prototype, defined by a man as a result of the subjective perception of a set of objects of the surrounding reality. The ratio of the observed characteristics of the object not to the initial properties, but to its culturally defined roles provides unusual flexibility and mobility of logical categories for prototype categories, and the ability of continually increase due to the emergence of new information in the process of the world changing.

Prototype theory is fruitful and promising in terms of understanding human cognitive activity and its general knowledge about the world, including the sociocultural knowledge, as well as it is helpful in terms of understanding the structure of language. It

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<sup>31</sup>Friedrich Ungerer An Introduction to Cognitive Linguistics Learning About Language, Pearson Longman, 2006.

is constantly enriched by the results of new investigations of categorization of knowledge about the world and language.

Also nuclear and peripheral characteristics can be revealed in prototype category. Features that reflect the essential properties of human conceptual representation of the object at a certain historical stage are included in the core. This is tending to the primary features of most striking images characterized by the highest degree of sensory-visual specificity. The peripheral area includes more abstract features. But, as it was noticed by Z.D. Popova and I. Sternin, “peripheral status of a conceptual sign does not indicate its insignificance in the conceptual field, this status indicates the degree of its remoteness from the core, on the basis

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of specificity and visibility of pictorial representation”.

The classical view that categories are based on shared properties is not entirely wrong. We often do categorize things on that basis. But that is only a small part of the story. In recent years it has become clear that categorization is far more complex than that. A new theory of categorization, called *prototype theory*, has emerged. It shows that human categorization is based on principles that extend far beyond those envisioned in the classical theory.

The link between linguistic expression, conceptual structure and specific national character was repeatedly postulated in linguistics (G. Lakoff, A. Wierzbicka, D. Dobrovolsky, D. Langaker, etc.), which formed the basis for distinguishing between mental and cultural aspects of the analysis of the word function in speech.

As G. Lakoff points out in his famous and often commented book “Women, fire and dangerous things”, “cognitive science is a new field that brings together what is known about the mind from many academic disciplines: psychology, linguistics, anthropology, philosophy, and computer science. It seeks detailed answers to such questions as: What is reason? How do we make sense of our experience? What is a conceptual system and how is it organized? Do all people use the same conceptual system? If so, what is that system? If not, exactly what is there that is common to the

way all human beings think?”<sup>32</sup>

All these questions have been on the mind of language scholars for more than 2000 years, and the answers vary from century to century, and from a science to science.

On the traditional view, reason is abstract and disembodied. On the new view, reason has a bodily basis. The traditional view sees reason as literal, as primarily about propositions that can be objectively either true or false. The new view takes imaginative aspects of reason-metaphor, metonymy, and mental imagery-as central to reason, rather than as a peripheral and inconsequential adjunct to the literal.

The traditional account claims that the capacity for meaningful thought and for reason is abstract and not necessarily embodied in any organism. Thus, meaningful concepts and rationality are transcendental, in the sense that they transcend, or go beyond, the physical limitations of any organism. Meaningful concepts and abstract reason may happen to be embodied in human beings, or in machines, or in other organisms-but they exist abstractly, independent of any particular embodiment. In the new view, meaning is a matter of what is meaningful to thinking, functioning beings. The nature of the thinking organism and the way it functions in its environment are of central concern to the study of reason.

*Both views take categorization as the main way that we make sense of experience.* Categories on the traditional view are characterized solely by the properties shared by their members. That is, they are characterized independently of the bodily nature of the beings doing the categorizing and literally, with no imaginative mechanisms (metaphor, metonymy, and imagery) entering into the nature of categories. In the new view, our bodily experience and the way we use imaginative mechanisms are central to how we construct categories to make sense of experience.

Cognitive science is now in transition. The traditional view is hanging on, although the new view is beginning to take hold. Categorization is a central issue. The traditional view is tied to the classical theory that categories are defined in terms of

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1) <sup>54</sup> Lakoff G. *Women, Fire, and Dangerous Things: What Categories Reveal About the Mind* University of Chicago Press, 1990

common properties of their members.

But a wealth of new data on categorization appears to contradict the traditional view of categories. In its place there is a new view of categories, what Eleanor Rosch has termed the theory of prototypes and basic level categories. We will be surveying that data and its implications.<sup>33</sup>

The traditional view is a philosophical one. It has come out of two thousand years of philosophizing about the nature of reason. It is still widely believed despite overwhelming empirical evidence against it. There are two reasons. The first is simply that it is traditional. The accumulated weight of two thousand years of philosophy does not go away over night. We have all been educated to think in those terms. The second reason is that there has been, until recently, nothing approaching a well worked-out alternative that preserves what was correct in the traditional view while modifying it to account for newly discovered data.

As G.Lakoff suggests the traditional view to be called *objectivism* for the following reason: Modern attempts to make it work assume that rational thought consists of the manipulation of abstract symbols and that these symbols get their meaning via a correspondence with the world, objectively construed, that is, independent of the understanding of any organism. A collection of symbols placed in correspondence with an objectively structured world is viewed as a representation of reality. On the objectivist view, all rational thought involves the manipulation of abstract symbols which are given meaning only via conventional correspondences with things in the external world.

*Among the more specific objectivist views are the following:*

- Thought is the mechanical manipulation of abstract symbols.
- The mind is an abstract machine, manipulating symbols essentially in the way a computer does, that is, by algorithmic computation.
- Symbols (e.g., words and mental representations) get their meaning via correspondences to things in the external world. All meaning is of this character.

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<sup>33</sup> Rosh E. *Principles of Categorization // Cognition And Categorization*. New York. - 1979. - P. 28-49.

- Symbols that correspond to the external world are internal representations of external reality.
- Abstract symbols may stand in correspondence to things in the world independent of the peculiar properties of any organisms.
- Since the human mind makes use of internal representations of external reality, the mind is a mirror of nature, and correct reason mirrors the logic of the external world.
- It is thus incidental to the nature of meaningful concepts and reason that human beings have the bodies they have and function in their environment in the way they do. Human bodies may play a role in choosing which concepts and which modes of transcendental reason human beings actually employ, but they play no essential role in characterizing what constitutes a concept and what constitutes reason.
- Thought is abstract and disembodied, since it is independent of any limitations of the human body, the human perceptual system, and the human nervous system.
- Machines that do no more than mechanically manipulate symbols that correspond to things in the world are capable of meaningful thought and reason.
- Thought is atomistic, in that it can be completely broken down into simple "building blocks"-the symbols used in thought-which are combined into complexes and manipulated by rule.
- Thought is logical in the narrow technical sense used by philosophical logicians; that is, it can be modeled accurately by systems of the sort used in mathematical logic. These are abstract symbol systems defined by general principles of symbol manipulation and mechanisms for interpreting such symbols in terms of "models of the world."

Though such views are by no means shared by all cognitive scientists, they are nevertheless widespread, and in fact so common that many of them are often assumed to be true without question or comment. Many, perhaps even most, contemporary discussions of the mind as a computing machine take such views for granted.

The idea of a category is central to such views. The reason is that most symbols (i.e., words and mental representations) do not designate particular things or individuals

in the world. Most of our words and concepts designate categories. Some of these are categories of things or beings in the physical world: chairs and zebras, for example. Others are categories of activities and abstract things: singing and songs, voting and governments, etc. To a very large extent, the objectivist view of language and thought rests on the nature of categories. On the objectivist view, things are in the same category if and only if they have certain properties in common. Those properties are necessary and sufficient conditions for defining the category.

On the objectivist view of meaning, the symbols used in thought get their meaning via their correspondence with things-particular things or categories of things in the world. Since categories, rather than individuals, matter most in thought and reason, a category must be the sort of thing that can fit the objectivist view of mind in general. All conceptual categories must be symbols (or symbolic structures) that can designate categories in the real world, or in some possible world. And the world must come divided up into categories of the right kind so that symbols and symbolic structures can refer to them. "Categories of the right kind" are classical categories, categories defined by the properties common to all their members.

As Kubryakova E.S. states, categorization is not just an act of applying a unit to its majority, it is a more complicated process of forming and distinguishing the categories themselves by features identified in the discovered phenomena based on the similar or analogous qualities or features<sup>34</sup>.

A definite dependence between mental and cultural models arises from the fact that mental models of some conceptual areas depend on cultural models. Mental models emphasize the psychological essence of personal perception of the world; therefore their description presupposes abstraction and idealization. Cultural models emphasize the "unifying" nature of categories common to all the speakers of the given language.

Lakoff G. defines thought as *imaginative*, in that those concepts which are not

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<sup>34</sup> Кубрякова Е.С. Язык и знание: Раздел 2. Процессы категоризации и концептуализации мира. М., Изд-во «Языки славянской культуры», 2000 - с. 307

directly grounded in experience employ metaphor, metonymy, and mental imagery-all of which go beyond the literal mirroring, or *representation*, of external reality. It is this imaginative capacity that allows for "abstract" thought and takes the mind beyond what we can see and feel. The imaginative capacity is also embodied-indirectly-since the metaphors, metonymies, and images are based on experience, often bodily experience. Thought is also imaginative in a less obvious way: every time we categorize something in a way that does not mirror nature, we are using general human imaginative capacities.

On the objectivist view of meaning, the symbols used in thought get their meaning via their correspondence with things-particular things or categories of things-in the world. Since categories, rather than individuals, matter most in thought and reason, a category must be the sort of thing that can fit the objectivist view of mind in general. All conceptual categories must be symbols (or symbolic structures) that can designate categories in the real world, or in some possible world. And the world must come divided up into categories of the right kind so that symbols and symbolic structures can refer to them. "Categories of the right kind" are classical categories, categories defined by the properties common to all their members.

To change the very concept of a category is to change not only our concept of the mind, but also our understanding of the world. Categories are categories *of things*. Since we understand the world not only in terms of individual things but also in terms of *categories* of things, we tend to attribute a real existence to those categories.

Thus, we can conclude that categorization of events, facts and phenomena is determined by different ways of reality conceptualization. The latter as one of the most important processes in the cognitive activity of a human being is closely connected with the concept formation, conceptual structures and the conceptual system as a whole in the human mentality. The concepts development in the mind of an individual is based on the experience which is required to perceive certain types of information and to some extent design the mental lexicon.

## 2.1 Conceptual metaphor as a universal mental tool

G. Lakoff and M. Johnson point out that metaphor in essence is a model of thought, which can be reflected by metaphorical expressions in language. They state that metaphorical concepts arise from our physical and cultural experiences, and structure our basic everyday activities in a very profound way. Lakoff and Johnson explain metaphor as an integral part of our ordinary, everyday thought and language and call it “irreplaceable” because it allows us to understand ourselves and our world in ways that no other models of thought can. Metaphor is so pervasive that every single word of our language may have originated from a metaphor.

Developments in the last decades in cognitive linguistics have shown us how important it is to understand the idea of “metaphor”, to get the meaning from the context and the world we live in. Lakoff G. claims that metaphor is something through which we perceive the world, understand the meaning both in language and thought. If it is necessary and important to understand the meaning in thought, language and literature - metaphor is the key to open the door of understanding and

58

creating meaning <sup>35</sup>

It is possible to define metaphor from different perspectives. According to Aristotle metaphor is a kind of “extra add” to language the “seasoning of the meat” which is used deliberately. The effect of metaphor “properly” used is created by combining the familiar with the unfamiliar; it adds charm and distinction to clarity. Clarity comes from familiar “everyday words”.<sup>36</sup>

Charm comes from the intellectual pleasure afforded by the new resemblances noted in the metaphor, distinction from the surprising nature of some of the resemblances discerned. When it is used properly, it can act conceptually to produce new understanding. In addition to its rhetorical function, Aristotle seems to recognize the cognitive function that has been dominant in the last decades. In other words, the

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<sup>35</sup> Lakoff, George & Mark Johnson. *Philosophy in the Flesh: The Embodied Mind and its Challenge to western thought*. New York: Basic Books, 1999.

<sup>36</sup> Kittay, *Metaphor: Its Cognitive Force and Linguistic Structure*, Clarendon Press, Oxford University Press 1987, 1989.



argument can be made that Aristotle had already pointed out the cognitive importance of metaphor, particularly metaphor based on analogy. Aristotle described the process of understanding metaphor as finding similarities within differences and suggested that, in order to reach an interpretation, hearers would need to draw on shared cultural understandings.

The Romantic Period was the time when metaphors were viewed in contrast to Aristotelian view. Wellbury D. quotes Dan Sperber, who clearly explains that in sharp reaction to Aristotelian thinking of the previous century, Romantics tend to proclaim metaphor's "organic" relationship to language as a whole, and to lay the stress on its vital function as an expression of the faculty of imagination. It is in short, not fanciful "embroidery" of the facts but a way of experiencing the facts. Metaphor, "deliberately invoked", intensifies language's characteristic activity, and involves the creation of "new" reality<sup>37</sup>.

In cognitive linguistics, metaphor is often seen as a basic cognitive function, that humans naturally see common traits in subjects which are factually distinct, and such behavior may be required for comprehension and learning, indeed the very nature of language itself relies on metaphor in which essentially artificial, but agreed, symbols (in the form of words) cross map to the experiential sense world of those that share a particular language. Lakoff and Johnson, known as the generators of cognitive view, define the essence of metaphor as "understanding and experiencing one kind of thing in terms of another". The shift in the definition of metaphor is a great signal to show its change throughout the history.<sup>38</sup>

Modern sciences consider a metaphor as a basic mental operation, as a way of cognition, structuring and explaining the world. Man is not only expresses his thoughts through metaphors, but thinks metaphorically, through the metaphors he creates the world which he lives in. This point of view on the study of metaphors have been proposed by American scientists G. Lakoff and M. Johnson, suggesting that the

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<sup>37</sup> Wellbury D. *The Ends of Rhetoric: History, Theory, Practice*, co-edited with John Bender, 1990.

<sup>38</sup> Lakoff, G. & Johnson, Mark. *Metaphors we live by*. Chicago: University of Chicago Press. 1980. - p. 5

metaphor is inherent to the nature of human thought and cognition, human thinking itself is metaphorical in nature.

As a starting point George Lakoff opposes several traditional statements of metaphor, which he considers as fallacious, they are the follows:

- 1) Any object can be understood literally, without metaphor.
- 2) Poetry is the most common use of metaphor.
- 3) Metaphors are only language expressions.
- 4) Metaphorical expressions are not true in their essence. Only literal language can be true.

G. Lakoff and M. Johnson cited examples from everyday language, in order to challenge these statements. The metaphor involves understanding one area through the lens of another (for example, the conceptual metaphor “Love is a journey” enables the following metaphorical statement: “Our relationship do not lead anywhere”, “Our relations are deadlocked”, “Look how far we've come”, “we have traveled a long and difficult path”, “Now we cannot turn back”, etc.). Metaphor can be understood as transference from one area (source); in this case, “journey”, into another (target); in this case, “love”.

According to this theory, it can be said that the metaphor is a bridge from a familiar to an unfamiliar, from the obvious to a less obvious. It is important to note that, metaphors can be expressed in many ways - not only by the language, but also by gestures, and cultural customs. The study of metaphors may therefore shed light on a wider subject - the relationship between language and culture.

*Cognitive/conceptual metaphor* is one of the forms of conceptualization, cognitive process that expresses new concepts and forms, and which is essential for obtaining new knowledge. According to its origin conceptual metaphor meets a person's ability to capture and create a similarity between different individuals and classes of objects. Under the most common approach metaphor is considered as the vision of one object by another, and in this sense, is one of the ways of representation of knowledge in linguistic form.

Metaphor usually refers not to separate isolated objects, but to the complex mental spaces (sensory or social experience areas). In the process of cognition, these complex directly unobservable mental spaces correlate through the metaphor with more simple or concrete observed mental spaces (for example, human emotions are compared to the fire, spheres of economy and politics to games, sports, etc.). Such metaphorical representations transfer the conceptualization of the observed mental space directly to the observable, which is conceptualized in this process and included to the overall conceptual system of the linguistic unity. At the same time, one and the same mental space can be represented by one or several conceptual metaphors.

The following basic types of metaphors are distinguished:

1) Structural metaphors involve the structuring of one kind of experience or activity in terms of another kind of experience or activity

2) Ontological metaphors involve the projection of entity or substance status on something that does not have that status inherently.

3) Orientational metaphors structure several areas and set a system of overall conceptualization for them. They are mainly concerned with orientation in space, with oppositions such as “up-down”, “front-back”, “deep-shallow”, “central- peripheral”, etc. So, in English, happiness, health, consciousness is described by the metaphor of the “top”, “up”, while misfortune, illness, and death by the metaphor of the “down”.

Identification and interpretation of metaphors both in everyday language and in literary texts, act as necessity and beyond that they have a great role in human thought, understanding and reasoning. Trying to understand metaphor then means trying to understand a vital part of what kind of world we live in.

Conceptual information plays a major role in literary text, as it conveys the main idea of the text or author’s attitude toward the text. The title of the text can reflect the events that took place in it or at least give the slightest idea. “Gone with the Wind” can be used to illustrate the conceptual information. The novel begins in 1861, in the days before the Civil War, and ends in 1871, after the Democrats regain power in Georgia. The South changes completely during the intervening years, and

Mitchell's novel illustrates the struggles of the Southern people who live through the Civil War era.

Through the image of "wind" the author shows the changes that swept the American South in the 1860s. As Gerald tells Scarlett in the opening scenes of the film, the land should be cherished because it can survive humanity's recklessness. However, it is not until Scarlett escapes from Atlanta and returns to her destroyed home that she begins to believe her father. Though her entire way of life is gone, she fights to keep the land because it is all that remains of the world she lost.

While she is in Atlanta making her fortune, Scarlett knows that the land will be there waiting for her. After Melanie, Bonnie, and Rhett are gone from her life, Scarlett uses the land as a starting point to help her rebuild. The South, too, lives through the horrors of war and remains unbroken, though it is forever changed. The Old South is gone, but as long as the land remains its people will always be able to start life over again. Shying away from scenes of dramatic battles and military heroism, *Gone With the Wind* expresses the true horrors of war by showing the destructive effect it has on people caught in the crossfire.

The image of wind echoes the changes that happen through the whole novel: a forever bygone time of Old South and the world's richest country estates of Atlanta that flourished due to slavery, the inevitable course of history, which interferes the life of the country and individuals, trite "wind era" that dispelled the illusions and hopes of those who tried to keep in inviolability their lifestyle, it is the *wind of changes*. The author tried to express how differently life can change under certain conditions.

The reader can observe the connection between "wind" and "changes" throughout the novel. Further we shall analyze these two concepts in order to find more connections between them. The analysis consists of dictionary definitions analyses, associative analyses of the proverbs, sayings and quotations expressing these concepts.

Analysis of dictionary definitions includes only those that coincide with meaning of a source domain:

Wind:

- 1) Something that disrupts or destroys
- 2) A tendency; a trend
- 3) To move in or have a spiral or circular course

Analysis of the proverbs, sayings and quotations including this word brings us to discovering and identifying similar associations in concepts CHANGE and WIND:

- 1) The wind does not always blow from the same quarter. inconstant
- 2) Women are as wavering as the wind. inconstant
- 3) When the wind of change blows, some people build walls, others build windmills. The wind does not respect a fool. power
- 4) Who spits against the wind, fouls his beard.
- 5) Unless there is opposing wind, a kite cannot rise.
- 6) Before the wind, everyone is a good sailor. Test

The following associative features can be withdrawn from the above proverbs thus constituting the conceptual periphery of both concepts. :

*Variable Fresh Transformable Metamorphous Fortune*  
*Unpredictable Fast Dangerous Powerful Coming Directing Unpredictable*  
*Uncontrollable Evil Fatal Inspiring Horrendous Looming Pleasant Motivation Change*

Analysis of dictionary definitions:

- 1) The act, process, or result of altering or modifying
- 2) The replacing of one thing for another; substitution
- 3) Something different; variety
- 4) A transformation or transition from one state, condition, or phase to another

Analysis of the proverbs, sayings and quotations includes the process of identifying similar associations in both concepts:

- 1) Continuity gives us roots; change gives us branches, letting us stretch and grow and reach new heights.
- 2) The wheel of change moves on, and those who were down go up and those who were up go down. power

- 3) Change is the law of life. And those who look only to the past or present are certain to miss the future. - John F. Kennedy - power
- 4) Taking a new step, uttering a new word, change is what people fear most. unpredictable
- 5) A table friend is changeable. Inconstant
- 6) You must change in order to survive - Pearl Bailey - test

Having analyzed proverbs, sayings and quotations with ‘change’ we reveal the following associations linked to the concept:

*Variable Unpredictable Dangerous Looming Uncontrollable Fast Fortune Fatal Inspiring Inconstant Pleasant Motivation*

As the analysis shows the concepts “wind” and “changes” can be compared as they have many coinciding features.

Further we will investigate conceptual metaphor Business is sport newspaper headlines.

Due to attractiveness and eye-catching properties, headlines in media discourse have been frequently analyzed. Newspaper headlines are a typical example of “little texts”. Due to the need for maximum economy, informativeness and expressiveness, newspaper headlines are a type of text in which metaphor often serve as cognitive shortcuts to a simpler and more effective presentation of complex phenomena. In order to be coherent with various aspects of the communicative situation in which discourse is created metaphor producers are governed by “the pressure of coherence”. Thanks to its key attributes (clearly distinct opponents, an unambiguous and predetermined goal of sporting activity - winning, team spirit, strict rules that need to be obeyed, etc.) sports competitions often serve in the process of metaphorisation as a source domain for the conceptualization of complex social phenomena. Thus, SPORT is one of the most frequent source domains for the conceptualisation of intangible, abstract domains, such as *life* - LIFE IS A SPORTING GAME, *politics* - POLITICS IS SPORT, war

- WAR IS SPORT. This clearly indicates that, in the conceptual metaphors referring

to sport either serving as a target or a source domain, there are frequent cross-domain mappings, intertwining, chaining and reversibility. Among the many creative speakers who can produce novel linguistic metaphors based on conventional conceptual metaphors, one of the main categories is that of journalists.

BUSINESS IS SPORT is a conceptual metaphor, which we will analyze in this paragraph. [Eric Dash](#) compares “Wall Street trading to a blood sport”, published: February 25, 2010(The New York Times). Another vivid example is the headline of the article by Adam Bryant published in November 10, 2012(The New York Times). “In Sports or Business, Always Prepare for the Next Play”. It becomes obvious that business and sport have much in common.

In the course of evaluation of sport and business, leaders in both these spheres must make difficult personnel decisions. In the NFL that means the head coaches, assistant head coaches, coordinators, position coaches and general managers. In non-sports businesses it means the C-level executives, business unit and functional leaders, and managers. In both environments, leaders must not only make judgments but also mentor, guide, support, teach, and encourage those who report to them, while grooming successors or hiring higher-potential talent from the outside who will eventually take the place of some of the current talent. Special attention is devoted to motivation because it speaks to both competitiveness and character, two of the most critical factors in sport and in business.

Apart from the obvious things such as setting goals and working as a team to achieve them, very few companies ever manage to leverage the type of performance focused interventions prized in sport - simply because their behaviors are so heavily influenced by cultural traditions and operational constraints that inadvertently impede people's ability to obtain the mandate they need to operate as required i.e. to deliver the results they need to. The reason for this is because there is usually a greater requirement for people to operate within given parameters or “accepted” practice not because it is assumed it will help them excel, but to prevent the majority from going off the rails.

In the process of analysis Business and Sports the following common features were defined:

- require certain skills
- are competitive
- need self- confidence
- take planning
- use strategies and tactics
- take concentration
- teamwork is important

Analysis of dictionary definitions includes only those that coincide with meaning of a source domain:

#### Sport

- 1) an individual or group activity pursued for exercise or pleasure, often involving the testing of physical capabilities and taking the form of a competitive game
- 2) someone or something that is controlled by external influences
- 3) such activities considered collectively

Analysis of the proverbs, sayings and quotations includes the process of identifying similar associations in both concepts:

- 1) Serious sport has nothing to do with fair play. It is bound up with hatred, jealousy, boastfulness, disregard of all rules and sadistic pleasure in witnessing violence. In other words, it is war minus the shooting. - [George Orwell Quotes](#)
- 2) Earnestness and sport go well together
- 3) He that laughs when he is alone will make sport in company.
- 4) It isn't hard to be good from time to time in sports. What's tough is being good every day. - Willie Mays
- 5) To a young heart everything is sport.

Having analyzed proverbs, sayings and quotations we defined the following associations to the concept:

[Aggressive ambitious antagonistic combative competing opposing dog-eat-dog](#)



emulous rival streetwise vying able talented accomplished adept adroit seasoned sharp skilled smart strategic Analysis of dictionary definitions:

Business

- 1) purposeful activity
- 2) an activity that someone is engaged in
- 3) a particular field of endeavor
- 4) serious activity requiring time and effort and usually the avoidance of distractions

Analysis of the proverbs, sayings and quotations includes the process of identifying similar associations in both concepts:

- 1) A business is good, when both parties make a good bargain
- 2) Business goes where it is invited and stays where it is well treated.
- 3) Every man doth his own business best.
- 4) Business sweetens pleasure, and labor sweetens rest.

Having analyzed proverbs, sayings and quotations we defined the following associations to the concept:

Cunning dishonest planned tricky strategic cardinal critical decisive important

It's no small wonder that the language of business and government is steeped in sports phrases. Such sports phrases are plentiful in business and show these connections:

1. Kick off - to start

Ex: Good Morning everyone. Shall we kick off the meeting then? (Football)

2. On target - making good progress and likely to achieve what has been planned Ex: It looks like we are pretty much on target with this project. (Archery)

3. Up to scratch - to be of a good standard

Ex: I know we have a great team whose work is really up to scratch.

4. Know the ropes - to be able to do something well

Ex: Our new Sales Director has a lot of experience and really knows all the ropes.

5. In pole position - to be in the best possible position

Ex: We are in pole position to win the contract. (Motor Racing)

6. Jump the gun - to do something too soon, especially without thinking about it carefully

Ex: We still have some costs to factor in and I don't want to jump the gun. (Track and Field)

7. Ballpark figure - a rough estimate

Ex: Can you give me a ballpark figure on the total sales costs? (Baseball)

8. Neck and neck - to have the same chance of winning as someone else

Ex: We are neck and neck with our competitors, so we really need to work hard to maintain our market share. (Horse Racing)

9. The ball in our court - to be in a position to make the next step

Ex: We have done what we can, the ball is in your court now. (Tennis)

10. Take our eye off the ball - to make a mistake, especially by doing something carelessly<sup>39</sup>

Ex: We really cannot take our eye off the ball with this deal as it will be a real winner for us. (Football)

### 2.3 Concepts as basic units of Mental Lexicon

Different languages use different words to express the same concepts, and cross-language differences in word structure might reflect slight but perhaps significant differences in meaning. As it was noted by Stepanov, concept, in the mental world of man, does not exist as means of precise notions but they exist as a bunch of ideas, concepts, knowledge, associations accompanying the word. A complex structure of the concept includes everything that belongs to the formation of the notion, and everything that makes it a factor of culture. Concept is a clot of culture in the human mind, the form by which culture enters the mental world of man.

The concept is the basic unit of culture in the mental world of man. Concept has a three-layer structure: 1) basic, current features 2) additional or more optional passive features that are not longer relevant, "historical", 3) internal form, usually not fully

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<sup>39</sup> <http://www.sportsdefinitions.com/>

recognized, and mostly captured in “external” verbal forms. Thus, “in modern studies cultural concepts are usually determined as multi-dimensional meaningful formations in the collective consciousness, objectified in the language form.”<sup>40</sup>

Thus, from the Cognitive approach viewpoint, the concept may be defined as a mental formation with properly ordered internal structure. Its occurrence is associated with cognitive / cognitive activities of man and society, and the content is determined by the nature reflected in the mind at the level of mental entities of an object or phenomena of objective reality.

The purpose of this section is to expand the understanding of the representation of the concept “fire” in English mental lexicon. The term concept is used to explain the units of mental and psychological resources of our consciousness, and describe the informational structure that reflects the knowledge and experience of the person. Concept is considered as a specific operational meaningful unit of the memory, mental lexicon and the conceptual system. The notion of the concept corresponds to the representation of those senses, operated by a man in the thinking processes, that reflect the content of the experience and knowledge, the results of human activities and processes of learning about the world as a kind of “quantum” of knowledge. The study of the conceptual structure of the concept is the key to understanding the mechanisms of conceptualization of verbalized notions and phenomena of the surrounding reality. The aim of our study is to build the most comprehensive theoretical model of the content “fire” as a global mental unit.

According to Jackendoff the most likely place where fixed expressions like phraseological units are stored is the mental lexicon, given the linguistic properties of fixed expressions. He emphasizes that people would know at least as many fixed expressions as single words.<sup>41</sup>

Finding a word begins on conceptual level, if you have a concept of “cow”. You

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<sup>40</sup> Степанов Ю.С. Константы. Словарь русской культуры. Школа «Языки русской культуры», М.: 1997.

<sup>41</sup> Jackendoff, R. The boundaries of the lexicon. In M. Everaert, E.J. VanderLinden, & R. Schreuder (Eds.), *Idioms Structural and psychological perspectives..* Lawrence Erlbaum Associates, Publishers, Hillsdale, New Jersey. 1995 - pp.133-165

need to find word to express it, so you search your mental lexicon for a word. The starting point is the broad area of meaning of the word you want belongs to.

Diachronic study of the semantics of the lexeme “fire” indicates that “fire” belongs to the native vocabulary of English language: in Old English were known 'fyr' “fire” and “fyran” “cut, cut off, chop”. Modern dictionaries of English Language note the following meanings of the investigating word:

- 1) The flame that generates bright light and heat: *strike fire, fire is one of man's greatest benefits;*
- 2) fire: *set a fire, be on fire;*
- 3) a means of heating: *gas fire, electric fire;*
- 4) a fire burning pile: *a cooking fire, a forest fire;*
- 5) shooting: *miss fire, hear the fire of cannon;*
- 6) criticism: *answer the fire from political critics;*
- 7) visitation: *go through fire and damnation;*
- 8) feeling, the passion: *bring new fire to the debate;*
- 9) the energy and enthusiasm: *with fire in one's heart;*
- 10) heat, temperature, etc.

In English thesaurus and in synonymous dictionaries semantic qualifiers of fire are the following:

- 1) “burning that produces bright light, heat and smoke”: *blaze / blazing, flame(s) / flaming, burning, combustion, luminosity, light, spark(s), glow, flare, ignition, etc;*
- 2) “destructive burning”: *conflagration, inferno, holocaust, backfire, brush fire, forest fire, grassfire, prairie fire, etc;*
- 3) “apparatus for heating rooms”: *heater, burner, stove, fireplace, hearth, etc;*
- 4) “burning fuel or other material”: *fusillade, balefire, volley, barrage, bombardment, salvo, burst, shelling, etc;*
- 6) “strong criticism»: *censure, disapproval, condemnation, attack, volley, bombardment, barrage, etc;*
- 7) “severe trial”: *tribulation, visitation, trial, etc;*

8) “strong emotion or feeling”: *passion, ardor, lust, heartiness, vehemence, fervor, zeal, zealousness, vigor, animation, intensity, spirit, etc;*

9) “enthusiasm”: *dynamism, energy, spirit, vitality, enthusiasm, sparkle, eagerness, etc;*

10) ‘fever or bodily inflammation’: *heat, burning, high temperature, fever, etc.*

As we can see, a synonymic group of the lexeme “fire” includes the words partially or completely identical in their conceptual meaning, but differ in their connotations, the sphere of use, combinability, and shades of conceptual meaning.

The material in antonymic dictionaries indicates that lexeme “fire” on the paradigmatic level in English becomes antonymous with the following words: *cold, frigidity, apathy, dullness, etc.* On the background of temperature relations *hot* (fire, heat) - *cold* (cold, frost), the meanings associated with the contrasting effects of the warm as something cold, indifferent: *fire - cold, fire - frigidity* are deployed. Antonymous pairs “*fire - apathy*”, “*fire - dullness*” reveal a connection of fire with its metaphorical meaning of “energy, liveliness” and oppose it to “apathy”, “boredom”, etc.

The construction and study of the derivational aspects of investigating word also enables to reveal relevant cultural and cognitive features of the concept. One of the most common methods of word-formation in English is conversion: fire (n) “fire” - to fire (v) “to burn, to light, to heat, to shoot, (figur.) “encourage” (colloquial) “dismiss”. Among the derivatives of the lexeme “fire” are nouns formed by model v + er (firer), v + ing (firing); adjectives derived by model n + able (fireable), n + less (fireless). The most productive way of forming words with the base “fire” is compounding. Also compound words with the specified base, most of them refer to the nouns and formed according to the model n + n. The basis of “fire” serves both: the first and the second element: *fire-pan, fireside, fireworks, campfire, etc.*

Based on the study of lexicographical sources and texts of English literature, it is possible to present a complete recreation of the combinability of the lexeme “fire” with other words. For example, in the meaning of “a fire” lexeme “fire” enters into a

relationship with the following words: *adj.* + *fire*: big, huge, fierce, serious, disastrous, bush, forest, house; *verb* + *fire*: be on, catch, cause, set sth on, start, fan, add fuel to, fuel, extinguish, put out, fight, contain, control, be damaged by / in, be destroyed by / in, be killed by / in, die in; *fire* + *verb*: break out, start, go out, blaze, burn, rage, spread, sweep through sth, damage sth, destroy sth, gut sth; *phrases*: bring a fire under control, set fire to sth, etc.

The great attention of people to the element of fire is reflected in phraseology. From the viewpoint of cognitive prototype “fire” in English phraseological units is represented as:

1. “Flame” burn like fire, red as fire, add fuel to the fire, etc. There have been signs of the conceptual fire-elements: “divineness”, “holiness” - *St. Antony's fire, baptism of fire*; “gehenna”: *the fires of hell, fire and brimstone*; spiritually-valuable attributes of the concept “heart and home” - *keep the home fires burning*; “desire” - *Promethean fire*; “creative gift, talent” - *sacred fire*, etc.
2. “A fire” : *pull sb out of the fire*, etc., person's knowledge from everyday life about the fire are marked: “force, inclusiveness” of fire - *set the world (the Thames) on fire, drive out fire with fire*; “impetuosity” - *like a house on fire*
3. “Shooting”: *draw sb's fire upon oneself, a running fire, under fire*, etc. As part of this phraseological units, component *fire* gets metaphorically reinterpreted feature “criticism” - *be in the firing line, hold (one's) fire*, etc.
4. “The light of something burning”, representing the following conceptual properties of fire, “light” - *false fires*; “statics” - *fires of heaven*; “signal” - *Hermes '(St.Elmo's) fire*, etc.
5. (figurat.) “Emotions and feelings”: for example, the fire as a “symbol of love” - *catch fire, set fire to sb*; as a “symbol of anger, hatred” - *breathe fire over sth, a fire in the blood*; as a “source of energy, a symbol of vitality” - *a ball offire, a fire in the blood, full of bush fire*; fire as “psychic experience” - *be on fire, soul made of fire*, etc.

The study of semantics of English proverbs contributed to underline the conceptual models that are the base of the concept:

***“Fire as benignant, transforming higher power”:***

Ancient people took fire as an exceptional phenomenon, powerful, permanently affecting their existence.

For example, a person presented it as a living being, a ruler, capable to transform things: *one fire drives out another, put not fire to flax*, to interact with the element of water: *he would go through fire and water for her*, etc.

On the one hand, fire and water are related in their valuable characteristics: *fire and water are good servants, but bad masters, fire and water have no mercy*; on the other hand, they are opposite, often inherently, “weaker” water neutralizes the effect “of aggressive” fire: *when the house is burned down, you bring water, pouring oil on the fire is not the way to quench it*, etc.

***“Fire as the source of danger”:***

The source of warmth and comfort at the same time is a furious element, which is difficult to pacify: *fire is never a gentle master*, as a raging force it has more to do with natural disasters: *that was the spark that set the forest on fire*, hindering human activities: *a little fire burns up a great deal of corn*. Obviously, fire causes irresistible, inspiring fear to Englishmen: *a burnt child dreads the fire, three things drive a man out of his house - smoke, rain and a scolding wife*; associated with a risk: *if you play with fire you get burnt, the fly that plays too long in the candle stings his wings at last*, etc.

***“Fire as a necessity, valuable in everyday life”:***

Fire is a source of heat: *the fire which warms us at a distance will burn us when near, the fire is never without heat*, light: *better to light one candle than to curse the darkness*, as well as comfort: *he that is warm thinks all so*, from ancient times is considered as means of fighting against bitter enemies: *burn not your house to rid it of the mouse*, as means of obtaining a confession or rightness, authenticity: *gold is tried in the fire*,

*etc.*

Wherein this is particularly important for the English to have their own fire, which perhaps might have mythological roots: *one's own fire is pleasant, you should know a man seven years before you stir his fire, the smoke of a man's own house is better than the fire of another's, etc.*

***“Fire as the internal world of the person, the soul”:***

The internal fire is a natural force, due to which man exists and acts in the world. It creates the energy, impulse, and passion in a person. English proverbs may reflect a repressed love: *fire that's closest kept burns most of all*, the vicious passion: *dirty water will quench fire*;

incandescence of relations: *the fat is in the fire, if your head is wax, stay away from the fire*,

an aggressive condition: *when the heart is a fire, some sparks will fly out through the mouth, etc.*

Songs by the metaphorical use of fire conceptualize vast areas of human experience, mainly his emotional and sensual sphere -

gleam in eyes, inspiration, and joy: *Nine times I kissed her ruby lips, I viewed her sparkling eye; I took her by the lily white hand, My lovely bride to be...* (English folksong “Abroad as I Was Walking”);

love, passion: *Fire on the waters, fire high above, Fire in our hearts for the friends that we love...* (English folksong “Fire down below”); *Love is light that surely glows... It's a steady flame that grows...* (Celine Dion “Tell Him”);

the pain of love: *Before you get in too deep And you get burned by the heat, Oh, yeah She'll take you there You know it happened to me, She'll make your heart break...* (Scorpions “Don't believe her”).

Fire also conceptualizes and particular components of existence, that is the mystery: *This flame that burns inside of me, I'm hearing secret harmonies It's a kind of magic...* (QUEEN “A Kind of Magic”);

beauty, harmony, embodied in the image of the goddess: *Goddess on the*



*mountain top Burning like a silver flame The summit of beauty and love And Venus was her name* (Scorpions “Hit between the eyes”).

The concept FIRE takes an important place in the modern conceptsphere, it can be represented in the cognitive processes by a variety of concepts, the concept constants such as the “*higher power*”, “*the source of danger*”, “*the internal world of the person*”, “*a necessity*”, etc which are associated with many world cultures.

The concept FIRE is alive and growing. The concept contains elements related to the emotional side of the world perception, morality, nature, art and, therefore, is a versatile, combining component from different semantic linguoculturological groups of concepts that allows us to call it the most valuable cultural constant.

### 2.3 Frame analysis as universal mental tool

The words in the mental lexicon are connected via different kinds of links. The words make a complex network among them. The straightforward evidence for the existence of such a network is that when an individual listens or reads some word, it activates the others that are connected with it. It is the presence of the links among them which conveys a reaction to the other words, and hence stimulate the others. What all these definitions suggest is that language is the mirror of the thoughts and feelings. Therefore, it is natural to believe that language is influenced by the culture of its speaker. Such influence can be observed in the frame analysis.

The purpose of this section is to conduct a frame analysis of the concept Heart in PhU. Frame analysis is one of the main stages of conceptual analysis; in contrast frames are not arbitrary chunks of knowledge. First of all they are knowledge units organized around a certain concept. But, unlike a set of associations such units contain the essential, the typical and the possible information associated with such a concept. Exploring the frame structure of the concept provides a key to disclose the mechanisms of conceptualization of verbalized concepts and phenomena of reality.<sup>42</sup> According to Atchincon phraseological units stored and processed in mental lexicon as holistic.

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<sup>42</sup> Виноградов В.В. Современный русский язык, вып. 1. М., 1938, с. 110-111.

It is well known that frame has a hierarchical structure consisting of slots, which ultimately form a concept in the human mind. Also frame has a dual nature structure, on the one hand - static structure, on the other - a dynamic structure. Static cognitive structures are presented by frame itself and dynamic - by frames, scripts or scenarios. One of the peculiarities of frames- scripts is that they organize human behavior and allow interpreting it in relation to the categories of stereotyped / non-stereotyped situation. Procedural frames can cover a large class of situations; describe things and events, recorded in the language.

The frame of scenario type is ordered in accordance with a scheme of action, as well as with the objects and subjects and tools of these actions that are implemented in the forms of slots (nodes). The components of the script frame are the following:

1. Typical for a particular frame model scenarios, reflect a specific sequence of the situation for this model, for example, a typical scenario of the church or social rites, funerals involve the preparation, the stages of implementation, performing certain rituals for the ceremony or a set of conventional actions, the use of certain attributes, the presence of participants - subjects, objects, and witnesses of the action, place, purpose and result of the action. Each frame-scenario has executors of roles. Consequently, it has different interpretations, reflecting the perspectives of different executors. Thus the scenario can be viewed as a system of frames.<sup>43</sup>

2. Subframes and related frames that structure the conceptual domain in picture of the world. Subframes are smaller in volume cognitive formations, forming the main frame, and accompanying relevant frames, in their turn precede and determine the possibility of a stereotypical situation.<sup>44</sup>

3. Type slots are elements of the situation, which specify a particular aspect of the frame. In cognitive linguistics slot is understood as a proposition (a unit of storage of information in human memory), which reflects a certain type of relationships that

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<sup>43</sup> Минский М. Фреймы для представления знаний: Пер с англ./ Под ред. Ф.М. Кулакова. - М.: Энергия, 1979. - 151 с

<sup>44</sup> Баранов А.Н. Постулаты когнитивной семантики / А.Н.Баранов, Д. О. Добровольский // Известия РАН. Сер. Лит. и яз. 1997. - Т. 56. — № 1. -С. 11-21.

characterize objects and events.<sup>45</sup>

Cognitive frames are usually expressed as “slot-filler representations”, structures of interconnected roles together with constraints on the possible or likely fillers of those roles. Examples of such frames are (1) the partially ordered set of events, as well as the participants in such events, that one can expect in a typical visit to a restaurant, barbershop, or hospital, (2) stages and processes in the life cycle of a human being, (3) the visual and physical properties of a cube, and (4) the organization of a human face, and countless others.

As humans we have access to some of these frames by virtue of living on the earth, subject to its daily and annual cycles and the entities that we perceive; other frames we owe to just being human, with bodies that respond to gravity and to our biological and emotional needs, and with the perceptual faculties that our bodies possess; others we have by being members of a particular culture, where we consciously or unconsciously respond to its institutions, symbols, artifacts, and values; and, importantly, still others we have by virtue of being a part of the specific speech community that supports and is supported by the culture. Thus, we have schematic knowledge about gravity, heat, and shadows, the difference between living and non-living things, about colors, pain, joy and jealousy, about marriage, government and religion, and about weekends, heartburn, military titles, the color purple.

Any discussion of a “frames approach” to semantic analysis must first draw a distinction between the ways people employ *cognitive frames* to interpret their experiences, independently of whether such experiences are delivered through language, and Frame Semantics as the study of how, as a part of our knowledge of the language, we associate *linguistic forms* (words, fixed phrases, grammatical patterns) with the cognitive structures—the *frames*—which largely determine the process (and the result) of interpreting those forms.

A semantic frame could be defined as a description and representation of how the

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<sup>45</sup> Паршин, П. Б. Теоретические перевороты и методологический мятеж в лингвистике XX века / П. Б. Паршин // *Вопр. языкознания*. - 1996. - № 2. - С. 19 - 42.

mental lexicon is structured and organized in long-term memory and working memory and how different sensations and experiences of the outer world are linked to words.

The basic assumption of frame semantics, in respect to word meanings, is that not just words from technical domains but essentially *all* content words require for their understanding an appeal to the background frames within which the meaning they convey is motivated and interpreted.

Frame analysis is not only aimed to distinguish explicit intentions contained in the material, but also to identify their “subslots” implicit parts of the interaction of the object with the subject. It should be noted that the starting point of frame analysis is the proposition of the investigated lexeme. The proposition includes the features of the original word, which correspond to objective reality. In our case, the propositions constitute semes, revealed in the analysis of the definition of “heart” in phraseological units. Phraseological unities - word-groups with completely changed meaning, the meaning of the unit does not correspond to the meanings of its constituent parts, but deducible as it is based on metaphor.<sup>46</sup>

Any list of “heart” expressions can quickly highlight aspects of human relationships and personalities: their attitudes, conditions for successful communication, socially preferred behavior. Expressions can create matrices in which social values can be expressed. Whether such expressions are seen as idioms, metonyms/metaphors, an underlying metaphoric analysis (it is hypothesized) can shed light on how people in their respective language cultures frame intellectual concepts about rational and emotive modes of behavior and reveal a possible culture of communication.

Many authors have stressed and recorded the systematic clustering of figurative expressions around conceptual metaphors and metonymies. This implies that many of these expressions have a common underlying mechanism which is activated constantly and automatically with neither effort nor awareness. In this view conceptual metaphors and metonymies are both available and accessible in any context and serve as a basis for figurative language comprehension. It should not, however, be taken as the only key to

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<sup>46</sup> Виноградов В.В. Современный русский язык, вып. 1. М., 1938, с. 110-111.

the understanding of idioms, but one of the factors, or one of the processing inputs in addition to the meanings of lexemes that compose the idiom, contextual clues, and etymology.

Before moving on to frame analysis, we consider the interpretation, which are contained in the various lexicographical sources, in order to trace the connection between semes and frames, we selected.

Heart is a hollow muscular organ of vertebrate animals that by its rhythmic

<sup>70</sup>

contraction acts as a force pump maintaining the circulation of the blood

- 1) Heart is the chambered muscular organ in vertebrates that pumps blood received from the veins into the arteries, thereby maintaining the flow of blood through the entire circulatory system.
- 2) The vital center and source of one's being, emotions, and sensibilities.
- 3) The seat of the intellect or imagination
- 4) Emotional constitution, basic disposition, or character
- 5) One's prevailing mood or current inclination
- 6) Capacity for sympathy or generosity; compassion
- 7) Courage; resolution; fortitude
- 8) Love; affection
- 9) A person esteemed or admired as lovable, loyal, or courageous
- 10) The central or innermost physical part of a place or region
- 11) The most important or essential part

<sup>71</sup>

Having analyzed the given definition, we have identified the following semes: *circulatory system of humans and animals, muscular sac, strongest muscle, the central organ, the organ of circulation*. Thus, in the definition of the lexeme “heart” we are witnessing the fact that the heart is the main, central organ not only a man but also an animal. Based on the foregoing, we believe that the heart is associated with feelings manifestations of feelings and emotions of man.

<sup>70</sup> <http://www.merriam-webster.com/>

<sup>71</sup>

<http://m.dictionary.com/?q=heart&submit=result-SEARCHD=Search>

Thus, the heart is the focus of feelings and emotions that are evident in the analysis of somatic phraseological units with the component “heart”. During the study we have identified frames, giving characteristic of emotional state man: love, pain, anger, anxiety, oppression, excitement, etc.

The analysis of PhU with the component “heart” has showed that most of them are included in the frame “love”. They form several groups and verbalized different subframes and slots. The first block presents units that represent subframes “passion”, “desire”, as well as slots “sympathy”, “desire” and “affection”. This is such idioms as *win someone's heart and win the heart of someone - Fig. to gain the affection of someone; to win the love of someone exclusively very strongly (to wish someone to love), at the mouth of the heart* "1. Suddenly, spontaneously appear in his thoughts, and feelings in the mood. 2. Someone like, fell in love with "open heart" declaration of love "heart grow" accustomed attached to anything, "enter into the heart" to become deeply loved by someone, "heart melts

Frame “sincerity”. The feelings associated to these expressions are sincere and intense. In English, we even find a use that could be considered hyperbolic: “In one's heart of hearts”. Here again the heart is conceptualized as a container from which sincere feelings, which are usually hidden, emanate. *From the bottom of one's heart* Another expression associated to the concept of sincerity is: *to speak from the heart, have a heart-to-heart talk with (someone)* “to have a sincere and intimate talk with someone”, *wear (one's) heart on (one's) sleeve* “to show one's feelings clearly and openly by one's behavior”.

. The frame “suffering” is implemented in the PhU *break someone's heart* “to cause someone great emotional pain”, *aching heart* “a feeling of sadness that one has when love has been lost or has faded” *die of a broken heart* “to die of emotional distress, to suffer from emotional distress (often from a failed romance)” *heavy heart* “a feeling of being weighed down with sorrow, a sad feeling”

*Heart stands still* “to be very frightened or worried about something” *heart is*

*in one's mouth* “one feels very nervous or frightened and has strong emotions about something” *heart misses/skips a beat* “one is startled or excited from surprise or joy or fright” *somebody's heart is in their boots* - if someone's heart is in their boots, they feel sad or worried objectifies frame “Concern” and such subframes, “anxiety”, “fear”, “anguish”.

The frame *courage* is also represented by PhU: “to take heart”, “to pluck up one’s heart”, “brave heart”.

The frame “” is verbalized by such PhU as: “*break one’s heart*”, “*heart of stone*”, “*hard-hearted*”, “*cold hearted*”, “*in your heart*”. That express negative attitudes with the adjectives “hard, brittle, heavy” in PhU. Given frame is represented by subframes "insensitive", "soulless" and slots "cruel", "callous."

The frame "responsive" represented through combinations: *warm the cockles of someone's heart*- to make someone feel warm and happy; *have a heart of gold* - to be generous, sincere, and friendly;

In concluding this section, we can conclude that despite the universality of the concept of HEART and the dedicated slots in the English Culture, the terminals of these slots are filled mostly lexemes that exhibit specificity, due to extralinguistic factors that are represent the knowledge structure in mental lexicon.

74

#### Summary

Mental lexicon performs the functions of word knowledge storage, retrieval, comprehension and use. Storage of words in mental lexicon is the result of a person’s cognitive processes in real world situations. As a result of cognitive processes, the words form up the situation sets (associated with a particular situation, objects, phenomena or processes), semantic sets (associated with a concept).

The use of words in both speech production and comprehension is the result of the cognitive processes. It starts with the perception of the situation that makes it necessary to look for a word. A process of cognition produces the meaning that a person is willing to communicate in the circumstances.

Defining concept as basic operational unit of mental lexicon, conceptual analysis of the concept FIRE helps to represent the knowledge construction in English mental lexicon.

Word combinations with the meaning of “part of something” can be tricky in use because each substance can require a certain word indicating a “piece” of this substance. Combine the substances and the words meaning “a piece of this substance” - metaphorical word use is typical in this regard. Metaphors are figures of speech, in which the words that ordinarily designate an object, process or quality are used to designate dissimilar ideas suggesting comparison or analogy. Many comparisons in the language are based on the metaphorical meaning transfer. They often serve as instruments of individual expressive power. Conceptual metaphor BUSINESS IS SPORT and WIND OF CHANGES help to define categorization as a base for knowledge representation in our mind.

Identification and interpretation of metaphors both in everyday language and in literary texts, act as necessity and beyond that they have a great role in human thought, understanding and reasoning. Trying to understand metaphor then means trying to understand a vital part of what kind of world we live in.

A semantic frame could be defined as a description and representation of how the mental lexicon is structured and organized in long-term memory and how different sensations and experiences of the outer world are linked to words.

Frames are cognitive shortcuts that people use to help make sense of complex information. Frames help us to interpret the world around us and represent that world to others. They help us organize complex phenomena into coherent, understandable categories. When we label a phenomenon, we give meaning to some aspects of what is observed, while discounting other aspects because they appear irrelevant or counter-intuitive. Thus, frames provide meaning through selective simplification, by filtering people's perceptions and providing them with a field of vision for a problem.

The purpose of present study was to get an idea of how semantic frame analysis



could be used to expand and develop the analysis of the concept HEART in PhU in mental lexicon in general. Frames are evoked, among other things, by words as the semantic conceptual content of the word activates the frame of f encyclopedic meaning that is needed for the understanding of word. One of the tricky aspects is that in contrast to conceptual system or language picture of the world mental lexicon might contain not only words but whole PhU.

### CONCLUSION

This dissertation research is devoted to the investigation of the nature and organization of the mental lexicon and its interpretation in different sciences related to the study of human reason, mind and language.

Thus, the conducted research allows to draw the following conclusions:

1. Mental lexicon is perceived as mental phenomenon in human consciousness; repository of knowledge about the word of encyclopedic and extra linguistic type, that performs the functions of storage, process and comprehension of human cognitive experience.

2. Organization of mental lexicon presents a complex system where its units are closely interrelated with each other. The concept of the modular nature of the lexicon follows from the interpretation of language competence as an independent component of the intellectual baggage of a person.

3. Categorization of events, facts and phenomena is determined by different ways of reality conceptualization. The latter as one of the most important processes in the cognitive activity of a human being is closely connected with the concept formation. Concepts development in the mind of an individual is based on the experience which is required to perceive and generate certain types of information and design mental lexicon.

4. We suppose that the comparative analysis of nuclear, base and peripheral features of the concept FIRE that is the basic operational unit of mental lexicon

allows revealing national and cultural specifics of their realization in human consciousness. Fire as a necessity; valuable in everyday life; the source of danger; benignant, transforming higher power; pain of love; beauty; the internal world of the person, the soul.

5. Semantic frame as an instrument of cognitive analysis is defined as a means for description and representation of how the mental lexicon is structured and organized, as semantic frame can be understood only with reference to a structured background of experience.

Thus, from all above mentioned statements, we can conclude that mental lexicon is a dynamic complex structured organization of mental units (words, symbols, mental representations), reflecting linguistic, extra linguistic and encyclopedic knowledge and experience of human beings.

Thus, a hypothesis assuming that mental lexicon is an internal part of our consciousness that operates and generates the knowledge about the world has been validated in this research.

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