Frame structure of mental vocabulary of the Kazakh language

The frame structure of the mental vocabulary in the Kazakh language is considered in this article by comparing the lexical-semantic groups of verbs in the Kazakh and other Turkic languages. When defining thematic groups, particularly, verbs that nominate the spheres of mentality, the authors use as a basis the main features, meanings and functions in the context, as well as the functional characteristics of each word. Particular emphasis is placed on the fact that the main feature of the verb is clearly seen in its semantics. The authors classify the verbs of the Kazakh language into eight groups depending on the features of the semantic field. Taking into account the issue of the complexity of verbal semantics in linguistics, it is concluded that the classification of the meanings of mental verbs is very difficult; the definition of its essence and grouping according to their semantics is also a complex linguistic phenomenon, therefore the proposed classification may be conditional and cannot completely solve the problem of classification of mental verbs.

Keywords: verb, mental verbs, frames, lexical-semantic group, semantic structure of verbs.

Introduction

It was M. Minskiy who introduced the term “Frame”: “Frame is the construction designed for representing stereotype situations. Various types of information are associated with each frame” – he stated [1; 7]. Linguists consider two types of frames, nowadays in the language use they are called static (frames) and dynamic (scenario). Any frame type defines the necessary structural information for the sub-object. However, in an intellectual system, numeric measurements have not only distinguishing features, but also symbolic information function (image representation). This can be explained here by an experimental or human phenomenal system of effective thinking. In fact perception, information retention, thinking and specific linguistic elements in communication design the components for the basic processes of structural units. The cognitive model is shaped by the mental activity of human beings. The extent of forming meaning of words or phenomenon in human conscience is apparent in such cognitive model. Consequently, it can be understood as formation of language content. The cognitive model is created by symbols and units which form information encoded in the language content. The units and symbols that create the cognitive model in consciousness are associations, stereotypes, symbols, and image. The association is formed on the basis of the relationship between recent experience and new concepts of people. Frames are formed from cells where accumulated information is stored. They are arranged graded in a certain order. The information from the higher level cells is easily accepted by human’s sensor organs. These objects can have external form, shape, sort, size, taste and other information. In the middle level cells the information is stored which is selected on an as-needed basis. At the lower level, information is collected which is related to encyclopedic knowledge of objects that are not immediately visible. Each frame is a volumetric and complex structure.

The frame is used in linguistics to explain the knowledge of various stereotypical situations. In addition, since each linguistic symbol provides a knowledge base about a particular object, they can be viewed as frames. The function of frame structure is significant in forming derived words and developing their semantics, building their semantic field and it is closely related to thinking and association processes.

The word is stored in the internal lexicon and appears in speech not only as a “sign” of a concept or representation; it is burdened by a load of associations firmly attached to it and arising individually in speech. The meaning of a word can undergo a variety of shifts, caused by both random convergence of a word with other similar words in sound, contextual rethinking, and the unexpected disclosure of its multiple meanings. The language stores the national identity, consciousness, mentality, and the ethics of each nation. Also in
In a cognitive context, a metaphor is recognized as a conditional act between two frames. The first base-frame corresponds to the significative descriptor of a metaphor, the second target-frame is considered to be denotative descriptor [2; 31]. The base frame represents the symbol needed for the metaphors. The symbol shifts to the target frame as a result of the similarity.

**Theory**

Frames are a well-organized stock of ideas, concepts about our world. Information in any mind is stored in memory via certain system; that is this information has high-level signs or low-level signs. Scenarios accumulate abundant informational pockets. But people do not need this information at the same time, each information is pulled out of the database as needed. That is, concepts are created for a specific purpose based on other concepts. This goal can be nominative, expressive, and pragmatic.

Charles Fillmore stated about frame: «We can use frames to define categories and names and their lexical and grammatical indicators in the language system” [2; 36]. In the cognitive process of creating a name, the basis for the name is called the main frame, the result of metaphors is considered as a target frame. In derivative words there is a connection between at least two frames. We can say that their ability to create pattern (model) is related to the information stored in the knowledge data base. «Words from the language frame activate the whole frame and the scheme associated with it in the speaker's mind; schemes can be used as a block construction tool for constructing a text model, that is, a world model compatible with text» [2; 34]. The signs used in the name (nomination), in this opinion, are the units used to create a certain knowledge system, like structures, create other names with the necessary information in the human mind. Therefore, words used in lexical units are recognized as frames.

The verbs in the Kazakh language designate variety of notions from semantic aspect and serve as words denoting movements, motions, action, process, various changes and phenomena. As I. Mamanov pointed «Verb is the part of speech which denotes action or processes and states: depending on its meaning, main features they can be divided in few groups» [3; 35-36] and he classifies them into 8 groups. Actually “the verb doesn’t denote the name of the action but the action itself; the name of the action, motion is designated only by some verbs (action name or stative verb). The semantic field of the verb is wide. As A. Iskakov writes: «The reason is that semantics is not only an act of the subject, but also in many different ways it denotes actions, activities, movements, processes, states and situations that arise in the course of life, in the life of society, through abstract thinking and consciousness of a person, as well as all concepts related to processes. This rich semantics of the verb, its types always coincide with the concept of time.» [4; 233]. The verbs can be divided in some groups according to their internal semantic, functional characteristics. E.g.: A. Iskakov classifies them into: verbs of action, movement verbs (auna — roll over, audar — transfer, jilyj — move), state-quality verbs (jd-; lie; tur — stand up), verbs of thinking-speaking (ait — say, oila — think), the verbs of growth (balala — give birth to a child, güldé — blossom), verbs of direction (bar — go, ket — get away, åket — take away), verbs of vision/ hearing, verbs of behaviour [4; 235], whereas in academic grammar it is of following types:

1. Verbs that are directly related to the subject’s action: (je — eat, is — drink, maila — grease, jür — let's go, kör — look, oay — read) and other verbs.
2. The verbs denoting subject’s movement, direction: (kel — come, ket — go, tüs — come down, şaq — get out, jına — collect, tara — dispart, targa — unpack).
3. Verbs associated with the state, process of qualitative change: (uyışta — sleep, oyan — wake up, azay — decline, köbey- increase).
5. Intransitive verbs with quality change meaning: (qulynda — to foal, güldé — blossom) [5; 127-128].

**Findings. Outcomes and discussion**

There are two sides of the language units: the first — external (sound forms) side, the second— internal meaning, semantic side. The word and its meaning constitute two sides of one phenomenon. They don’t exist apart each other, they are closely interrelated. Here the leading, notional verb has the main function. The reason: there is no word without meaning and no meaning exists without the word. In linguistics its branch semasiology studies the word meaning, their types, structure, formation, evolution trends, causes, and the ways to define the word meaning.
The semantic structure of the verb. In linguistics “emotionality” (Latin emovere — enthusiasm, excitement) “emotion” — different moods, feelings and affections of the environment [6; 432]. The lexis with emotional colouring are words denoting sympathy and shame, like and dislike, panic and joy, admiration and hate, fear and courage, trust and distrust, grief, worry, desire and use of many other meaning, the expressive ones are the combination of semantic and stylistic language units. It is used as linguistic device which demonstrates the opinion or attitude of the speaker to the word meaning or to the addressee (person). It has phonetic, morphological, lexical, syntactic means. Using these means the speaker will be able to show his mental, emotional state. Emotion conveys the word as emotional (sensation), vivid, colourful (affective) word. The emotional devices are studied within phonetics, grammar, lexicology, stylistics and semantics, is stated in [6; 432].

The expert in Sakha (Yakut) language L.N. Haritonov has classified the verbs in three groups based on their lexical and semantic nature, specifics of their grammatical structure: 1) state verbs, 2) imitative verbs and 3) figurative, descriptive verbs [7; 15]. If G.K. Kuliev classifies Azerbaijani verbs in his work in 12 groups [8], then S.A. Rzayev groups them into 8 types in his dissertation «Semantic categories of verbs in modern Azerbaijani literary language» [9].

All verbs can be divided into semantic clusters based on their semantic specificity, use and self-indication, and the same way the verbs with equivalent inner meaning can be grouped according to their semantic fields, their meaning. Since the meaning of a word is interrelated, it is obvious that each of the different words has a variable meaning in context. The word is an important linguistic unit, representing the phenomena of society and nature, the spiritual life of a human being. Both the word and the meaning of the word are complex phenomena, their semantics is exact the same complex category. It is complicate and difficult to explain the meaning of semantically equivalent words and distinguishing to classify them. In this regard it is necessary to give the definition of the notion of equivalent words based on the concepts of the scholars. S. Kenesbayev states: «The integrity of the language, its national originality appear in the organic connection of the semantic side of the word, on the one hand, and the word itself (i.e., sound) — on the other. And therefore it is clear that the lexical richness of a particular language is measured both by the number of words and their semantic functions», highlighting that most words don’t coincide semantically with each other, which means that they do not match, and some of them have semantic difference [10; 275-277].

The division of words into lexico-semantic groups has several basic principles that have long been established in linguistics. For example, words in one lexico-semantic group: a) interconnection through certain semantic units (semes); b) to be homogenous word of the same part of speech to build the certain paradigmatic row; the words considered to be the unit of LSG (lexical-semantic group) keep their autonomy while connecting with other words, semantically complementing and matching each other etc. From this point of view, there are many thoughts and statements about synonyms and their definitions. Professor A. Bolganbayev gives definition which corresponds to the nature of the Kazakh language: «Synonyms are the words of the same part of speech category though spelled and pronounced in different way but having close meaning, and each of them has its semantic, stylistic or emotional peculiarity, colouring» and his concept approaches the semantic field [11].

M.D. Chertykova classifies the mental verbs in the Khakas language into its small sub-groups (LSG):
1) verbs of cognition (pil «know»);
2) verbs of thinking (sagyn «think»);
3) verbs of comprehension (ongna «understand»);
4) verbs of belief (kirtin «believe»);
5) verbs of doubt (ikinchile «doubt»);
6) verbs of opinion (sana «consider»);
7) verbs of mental skills (ygren «learn», hygyr «read» etc.);
8) verbs of evaluation (paala «evaluate»);
9) single mental verbs [12; 82-100].

The lexico-semantic system of words in the Turkic languages was first classified into semantic groups, taking into account its features by N.K. Dmitriev [13]. He studied the Tatar language verbs classifying them into distinct groups of verbs of thinking, speaking, movement, and wrote an article about his research findings. Following the example of the scientist, the researches were done and a number of scientific works were
published. In these works, the verbs are divided into the following groups: verbs of motion, verbs of action, verbs of speaking, perception, feelings, verbs of state [14].

In the classification based on the semantics, the meaning of words (verb), the basic principle is peculiarities of each word, its features, meaning, context, functional use. The meaning of the verb was taken as a decisive attribute in the definition of the basic semantic symbols of the language. It is because the main features of the verb are clearly expressed in semantics.

Combining words into semantic associations, it is important to know semantics both theoretical and practical. For example, T.V. Bulygina in her conception «Mental verbs may signify one or another mental state (know, believe, remember), mental activity, usually aimed at gaining knowledge (reflect, think), or indicate the occurrence of a certain mental state as a result of previous activity or sudden illumination (find out, guess to understand) shows that we can see the mental state from thinking activity [15; 31].

Findings, experiment

Since the semantic classification of verbs in the Kazakh language is not grouped and evaluated entirely, there are many difficulties in analyzing verbs. Since this topic is the subject of the research, the main goal is to uncover the semantic field of verbs, comprehend and divide them into meanings. For this purposes, on the basis of linguistics and Turkology systems, which are recognized and accepted as a position, on the basis of linguistic data of the Kazakh language and of the originality of the Kazakh language, the meaning of verbs in the Kazakh literary language and synonym dictionaries were classified, analyzed and divided into semantic fields of verbs as follows:


4. Verbs showing character features, image, şagrayu — squint, stk, siyu — narrow one’s eyes, bityu — screw up one’s eyes, üjk, ildau — groan, üyramu — howl, üyrsu — moan, dûrsidew — rattle, gûrsidew — grumble, tarsidaw — bang, tırşldaw — crack, kökw — blather, mûjldaw — trash-talk, ottau — talk rubbish, yvaltu — shame someone, k, zartu — put to shame, blush, arsldaw — yelp, yell, virdaw — roar.

5. Verbs that indicate quality or process: uzaw — be off, ałstaw — move away, qasqatlw — distance, eskirw — get old, könerw — decay, tozw — get worn out, kögerw — become moldy — köktew — discoulour to green.


7. The verbs of subjective colouring: kisimsw — adamsw — humanly, aqrqanw — âzsw — qomsinsw — mise tutpaw to consider insufficient, little, qamqorsw — jami âşızansw — as if taking care.

8. Verbs of speaking: aytw — tell, sôlew — speak, dw — say, sôlesw — talk, âñîmeslsw — have conversation, communicate — keñsw — to consult, kînkildêw — grumble, miñgirlew — murmur.

The verbs of mental process. The meaning of the verbs in this group is closely related to thinking, i.e. the action of the human brain. That is why the verbs of this group can be called logical-psychoical. Facts and phenomena that cannot be directly perceived in reality are known only through thought. Thinking is the displayng, reflection of relationships between objects of the external world and phenomena in the brain, in general, in word. Verbs of reasoning differ significantly from other groups of verbs and are fewer in number. These verbs designate thinking process connected with the world cognition, perception, awareness, understanding, feeling, sensation and knowledge. The human mental activity can be seen in solving various problems, questions. Though the verbs of thinking are not so much in number but in semantic aspect they are broader. It was professor N.K. Dmitriev who had studied for the first time in Turkic studies the verbs of thinking and expressed his opinion [13]. Since that period the linguists who had classified the verbs into lexical and semantic groups, consider them as a particular sub-group. In recent years the new research trend is being developed by linguists in which the national world perception is interrelated with semantic field and
specific verb groups are differentiated and studied in Turkology. However, this is not a comprehensive study of verbs. The mental verbs of the Russian language were studied as a semantic group and began to be studied in a new direction. Though the principle of lexical and semantic classification of words is common and similar in all languages, it is obvious that any language has its national peculiarity [16]. These are verbs of mental activity which are closely related to the thinking process and describe the intellectual, thinking process. Thus, it is associated with verbs of quality and state. In the semantic field the verbs oylanw — consider, tolğanw — think over, cogitate, bilw — know, sezinw — feel, tüsînw — understand, uğnw — comprehend, tanw — recognize are used as verbs of thinking. For example, Abai has been thinking over for few days, considering all alone. (The Path of Abai II, p.10)....He gave a sense of his soul’s deep anxiety. (Path of Abai, II, p.9).

A researcher of the semantics of verbs in the Azerbaijani language G.K. Kuliev said that the verbs of thinking are associated with the human’s thinking process: «Verbs of thought. This verb LSG denotes human thought processes. It is divided into two LSS (subgroups):

a) LSS of verbs of thinking with the meaning of the thinking process: Azerb. digivan; gag dushun; oylan — consider, reflect, think; Azerb. think up, make up in the Turkmen language the verb tosła is used in such a meaning.

b) LSS of verbs of thinking with meaning: the result of the mental act: Azerb., Turks., Gag. san—

Osm.Turk. — “believe, suppose, think, consider” saying this he divided the verbs of thinking into two small groups [8]. These mental verbs represent a process by which a sense of thought can be considered closely related to the semantic series of words of world perception, recognition, perception, awareness, understanding, sensation, knowledge. For example, the academian A. Kaidar gave several meanings of the words: oi — thought, tüs — understand, bil — know:

1. Oi [of] I thought, idea, intention [17; 265].
3. Bil- [bil-] I) know, perceive, learn about; 2) find out, discover; 3) acquire, study [7; 199]. From these meanings, the semantics of the rows I, IV and II coincide [17; 275].

Bil= v. 1. To be aware about something. 2. To keep, retain in the memory, remember. You fired a bullet without reason, Tengri is a judge, Stone is balance, don’t think that the disobedient will remain unresponsive. Be aware, the one who broke his promise, end up in hell. Sen attın jünsiz oq. Tānīrī — qazı, Tas — tarazı, tentekti suramans dep qalma. Ərt buzğannya, bil, ornı soq (Abai. Collection of works). 3. The suffixes -a,-e,-i are added to the notional verb form and indicate the meaning: be able to do smth. (qolınan kelv), be ready (dayın bolv), be capable (istev alw). 4. To find solution, to master the technique. (He) has set on a camel back, has no idea where to put a knife (kill with a knife). Tüyege saldı qasqır awız dönemin, Bilmeqyi qay jerinen bawızdarın (K. Āserbayev. Selected works). 5. To understand, to comprehend — tüsınu, wỳmınw. 6. To identify, to define, to investigate, to make aware — Anıqtaw, ayqındaw, tergep-tekersew, kōzin jekizw. 7. To observe, to check, to feel, perceive, to comprehend Bayqaw, sezw, anğawr, aqaw. 8. To recognize, to distinguish tanw, tüstew. 9. To evaluate, to respect, to differentiate, to specify Bağalaw, qadırlıev, ayırv, ajratw 10. To make a choice, to make decision Tawdaw jasaw, bir şeyingm kelv. Sonda şal mını sızğı anğawr qildı, ne qaları bile alaym, az oylanı Then the old man was astonished at this word, and he didn’t know what to do and considered for a short moment. (Abai. Collection of works), [CLKW].

The meaning of the movement verbs: Aq [aq] I white; figurative meaning, milk, milk products etc. *aq [aq] II (imitative: something white, whitish, bleach): aq- < aq+yı to look with anger, flashing with the whites of eyes. Compare: aq I. ak-[aq-] III flow, flash; stream; figurative meaning: to flow, to occur quickly (about process, event, walking, speech); *aq- [aq] IV (set free, let out, let loose): aqyt- < aq+yt- untie, unbind, loose; *aq- [aq] V: aqtar < aq+ tar-take up, recall, travel in mind, turn over; dig up. Compare au-I; aq [aq] VI aq. 1) true; 2) innocent, not guilty; 3) inevitable. Compare qaq XII; *aq [aq] VII: aqtɑ < aqt+ɑ sinc. Castrate, alter (horses, camels) // castrate, castrated (gelted horse, merin, atan) [17; 186].


3. **beautiful, wonderful, luxurious, gorgeous** — Hak. [18; 116-117].

It follows from the above data that in the Turkic languages there are two forms of the base under consideration — one with a broad, the other *aq* — with a narrow non-lip vowel, which formally should be considered ancient *yq*, since the second form — judging by the monuments — is not found, it seems earlier Chagatai texts. However, the verbal root *yk*, together with the nominal root *yk*, as well as the verbal root *aq*, together with the nominal root *ak*, form verb-nominal homomorphic name-verb pairs, formed according to the most ancient, pre-alphabetical word-formation model, and therefore all four roots must be considered as the most ancient, in which the wide root vowel alternates with the narrow root vowel, as in a number of other roots.

1. **to be carried away by water, over** — Az, Kum, Alt., Hak.; *flow-, leak-, flow* in all the above sources; spill — Turk., Kum.; pour, lower (liquid) — Uz., dial.; 2. **to be carried away by water, over** — Az., Kum., Alt., Hak.; 3. crumble, flow (on loose, bulk solis) — Chuv.; secondary and figurative meanings; 4. **run eyes from the subject to the subject**; 5. **sneak away, run away** P I55. [18; 118-119].

**Conclusion**

Concluding, based on the views of scientists about the mental activity verbs, we discussed the classification of verbs on semantic, general meaning aspect. But one cannot hold to an opinion that there are only abovementioned types of mental verbs in the Kazakh language. It is because if the process of classifying the mental verbs according to their meaning, the process of their grouping, defining their meaning is the complicated process as well. The meaning, use and semantic application of each word are very wide and multisided. The meaning, use and semantic application of each word are very wide and multisided. The meaning, use and semantic application of each word are very wide and multisided. The meaning, use and semantic application of each word are very wide and multisided. The meaning, use and semantic application of each word are very wide and multisided.

The issue of classification of mental verbs is not restricted just with this study. Their various, enormous types and meanings will be differentiated, distinguished and classified further. The above-mentioned classification of mental verbs given by various linguists is taken just as model and the issue of not only mental verbs but of verbs in general will be studied and discussed in the future researches.

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Фреймовая структура ментальной лексики казахского языка

В статье рассмотрена фреймовая структура ментальной лексики в казахском языке путем сопоставления лексико-семантических групп глаголов в казахском и других тюркских языках. Проанализировано их семантическое поле на основе семантических, функциональных, эмоционально-выразительных свойств глаголов в казахском языке. При определении тематических групп, а именно, глаголов, номинирующих сферы сознания, авторы берут за основу основные признаки, значения и функции в контексте, а также функционально-семантические особенности каждого слова. Особое внимание уделено факту, что основная особенность глагола четко прослеживается в его семантике. Авторы классифицируют глаголы казахского языка на восемь групп в зависимости от особенностей семантического поля. Учитывая вопрос о сложности глагольной семантики в лингвистике, сделан вывод о том, что классификация значений ментальных глаголов очень сложна, определение ее сущности и группировки по семантике также являются сложным языковым явлением, поэтому предлагаемая классификация может быть условной и не может полностью решить проблему классификации ментальных глаголов.

Ключевые слова: глагол, ментальные глаголы, фреймы, лексика-семантическая группа, семантическая структура глаголов.

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