

EMPIRICAL METHODS OF MODELING SELF-ORGANIZATION OF LEXICAL INNOVATIONS IN THE MENTAL LEXICON

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Abstract. *Owing to the large-scale national ideology for the modernization of public consciousness, it is relevant to consider the process of lexical innovations self-organization in a person's mental lexicon along with other problems of Kazakh linguistics. A new style of scientific thinking – synergetics is proposed an appropriate methodology, universal principles to study such a complex system. It is possible to identify common patterns and processes of the evolution of the national language as a complex system and characterize lexical innovations in the Kazakh language by using a synergistic methodology. The synergetic methodological platform – is a complex of integrated theoretical and empirical methods as well as universal principles characterized by interdisciplinary features. The article analyzes the types of empirical methods and the possibility of achieving the results of synergetic modeling of self-organization of Kazakhized lexical innovations in the mental lexicon.*

Keywords: *lexical innovation, synergetics, self-organization, model, mental lexicon, empirical methods, priming, alternative experiment.*

The President of the Republic of Kazakhstan Kassym-Zhomart Tokayev said that “to withstand the new challenges, it is necessary to ensure the protection and preservation of national values, especially the Kazakh language, because language is the cornerstone of the nation. In particular, national security begins with respect for our language” [1]. In this regard, the development and use of the Kazakh language as the state and interethnic language of communication is of particular importance in the implementation of the priorities of national ideology in our country. This approach to language strategy, taking into account the creation of the Kazakh alphabet based on Latin script, first of all, it requires a new scientific substantiation of the fundamental and applied problems of Kazakh linguistics. Within the new scientific linguistic paradigm, it is significant to consider the issues of supplementing the lexical system of the

Kazakh language with lexical innovations (neolexics / neologism), lexical innovations are the results of dynamic processes that reflect language adaptation to political, economic and social transformations.

Lexical innovations in Kazakh linguistics (hereinafter – LI) are considered in terms of word formation, aspects of lexicology, as well as issues of Kazakh language culture and literary norms. The development and use of the state language over the last quarter of a century is characterized by the intensive use of the internal potential of the Kazakh language, as a result of which, especially in written communication were appeared many LI. However, there are a number of contradictions a) between the implementation of the requirements for strengthening the state status of the Kazakh language by expanding its lexical and semantic volume and the use of LI at different levels in official business, the socio-cultural communicative act of various

social groups; b) between the desire to preserve the viability of the language, a high language culture and the free use of other language elements in different communicative situations; c) between the lack of scientific substantiation of the processes of codification and normalization of LI and the subjective assessment of the linguistic, socio-political significance of Kazakhized words by some groups of society.

According to Baudouin de Courtenay, in order to “penetrate” any linguistic unit to the active speech of society, it is necessary to pay attention to the processes that take place in the linguistic consciousness of the individual: at first the new word must be established in linguistic consciousness [2]. In this regard, it is significant to examine the phenomenon of LI in the biological skeleton as a natural source that complements the mental lexicon. The study of psychophysiological mechanisms that take place in the human mental context in the methodological platform of synergetics, including the application of synergetic principles, allows us to identify the conceptual scientific basis of the mentioned contradictions above. By using synergetic principles, it is possible to achieve results based on the general laws of accumulation of the mental lexicon of the individual, as well as to make an interdisciplinary model of the evolutionary state of the location of LI in the mental lexicon gives opportunity to evaluate “destiny” of LI.

The most important experiments carried out in the field of research, in particular, in the development of a synergistic (interdisciplinary) model of the concentration of Kazakhized lexical innovations in the mental lexicon form the empirical basis of the study. In general, these experiments allow to study the language perception of language owners by verifying (verifying the authenticity) of the interdisciplinary model of concentration of lexical innovations in the mental lexicon. One of the empirical method is – priming method.

The method “priming effect” or “front effect” which appeared in psychology is widely used in social spheres such as

marketing, advertising, mass media. Priming (English to prime – “pre-adaptation”, “preparation”, “effectiveness of prevention”) is a phenomenon characteristic of implicit (hidden, impossible to control directly, invisible) memory. Recently, the method of priming that has become recognized as an effective way to study the mental consciousness of man improved the empirical methodology of linguistic research. Cognitive and social psychologists have studied the effect of priming in detail and proved that this phenomenon is a common occurrence in the daily lives of members of society. As a result of the priming effect – the effect of “irritants” in the environment – people’s behavior is formed, as well as it influences people’s sudden decisions.

One of the most famous studies on priming is – John Barg’s work on automatism in cognition, motivation, and evaluation. J. Barg considers the role of automatism and unconscious information processing in social behavior, in particular the role of priming in the formation of behavior. In his article named “Beyond Behaviorism”, the scientist concludes that the nature of automatic and voluntary processes can be determined only by their causes [3].

The formula for processing information by the priming method is simply as follows: the effect of a person on a given stimulus is determined by a similar action on the previous stimulus. For example, when watching an adventure movie in the evening, the impression of the film awakens a person’s fear of any sound. Therefore, the main cause of the sound effect is related to the previous event. As well as, results of research showed that when a person hears the word “kindness”, he begins to appreciate those around him as more kind. When person feels the smell of household cleaners, he may have desire to clean the house. These are the results of research conducted in the field of psychology using the method of priming.

Priming looks well when a person acts automatically, without thinking about which action to choose. At the same time, pre-orientation to the perception of any phenomenon is carried out through the

priming effect. “The priming effect is the activation of specific associations and memories in memory in order to influence a person's future actions. Any stimulus received by the human senses as – sight, smell, sound, taste – automatically activates the associated concept in memory. Activated associations or concepts remain active for a certain period of time and can affect a person's subsequent emotions, thoughts, reactions, and behavior” [4]. The priming effect is also used in the design and presentation of material in order to influence people in various aspects of communication. Researchers believe that “the first impression, middle or previous event affects a person's subsequent reaction and behavior, attitudes: the presentation (packaging) of food, advertisements on the way from the parking to the store, and so on [4].

In modern linguistics, a new term “semantic priming” has been started to use, it is applied to determine which solutions accelerate the impact on the mental lexicon. The organization of language units in the mental lexicon, including lexical innovations that occur in the language can be determined by the fact that the language owner “feels”/“does not feel” them. The main feature of the mental lexicon is that it is impossible to “freely access and freely connect”, and the method of “priming” allows you to study the processes of implicit memory and the unknown aspects of information processing.

Lexical innovations that make up the content of the experiment by the method of priming can be words that are familiar to the owner of the language, available, with clear semantics, as well as vice versa.

For example, the positions of computer technology terms such as *computer - program - keyboard - menu - mouse - internet - social network* – (including besides computer – Kazakhized lexical innovations) in the mental lexicon can be determined by their semantic connection.

For the purposes of the study, the method of semantic priming was used in the Project. In order to achieve the effectiveness of priming, the stimulus material for sensory

purposes, that is, the “target object” and the stimulus material before it - “primer” are offered [5, p. 82]. Semantic priming refers to a person's perception of the semantic connection between the prim and the target object (lexical novelty). The obtained result allows to represent and interpret the peculiarities of the semantics of lexical innovations, which belongs to the group of common lexical units.

Model 1: the respondent is given a stimulus object – prime: the word *computer* and two choices for this word: the first – the target object – the right version: *the mouse*, the second – the distractor – the wrong version: *the badge*.

Model 2: incentive object – prime: the word of *the official document* and it is given two choices: the first – the target object – the correct version: *power of attorney*, the distractor – the wrong version – *the impulse*.

At the experimental stage of the project, the theoretical and applied data of experiments conducted by the method of priming in foreign research are taken into account. According to the experiment, the recognition of the target word is influenced not only by one language, but also by prime words of other languages. It is also possible to determine the level of language proficiency of the participants of the experiment on the effectiveness of priming.

The next type of linguistic experiment, which is crucial for achieving the purpose of the study was first suggested by L.V. Scherba – an alternative experiment. In an alternative experiment, the respondent determines whether the two or more proposed forms of verbal communication are “equal” or “unequal”. It includes LI in Kazakh and other languages. As a result of the experiment, the level of recognition of LI is determined by the equivalent of change. In order to select the target objects, LI is taken which used in parallel in the oral communication.

Model 1: View of oral communication:

a) A power of attorney (*senimkhat* kazakh word) must be obtained from a notary to submit the documents.

b) A power of attorney (*doverennost* russian word) must be obtained from a notary to submit the documents.

Response options offered to the respondent – “yes” / “no”. The correct answer is “yes” (if the answer is correct, the respondent recognizes the LI).

Model 1: View of oral communication:

a) There are many buttons on the computer keyboard (*pernetakta* kazakh word).

b) There are many buttons on the computer monitor (*monitor* russian word). The correct answer is “no” (if the respondent answers “yes”, it means that he did not recognize the LI).

These empirical methods used to create a synergistic model of the organization of Kazakhized lexical innovations in the mental lexicon – the primitive method, an alternative experiment – show the presence / absence of accumulated information about the LI in the mental lexicon of the individual. Most importantly, the ability of the linguist to feel

the semantics of the new lexical unit allows to predict the “fate” of the word in the language.

In conclusion, along with these empirical methods, research procedures such as associative experiment, subjective scaling method allow to achieve results based on the methodological platform of synergetics on the general laws of organization of Kazakhized lexical innovations in the mental lexicon. This is, first of all, it opens scientific and applied significance for the improvement of the Kazakh speech culture and the way for their formation in the public consciousness of the authoritative image of the speaker of the state language. The results of the study should be used for further theoretical and applied research, in particular, to identify and re-evaluate the priorities for the development of the state language; undoubtedly, it will contribute to the further development of the Kazakh language in the most important areas of public relations.

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**ЭМПИРИЧЕСКИЕ МЕТОДЫ МОДЕЛИРОВАНИЯ САМООРГАНИЗАЦИИ
ЛЕКСИЧЕСКИХ ИННОВАЦИЙ В МЕНТАЛЬНОМ ЛЕКСИКОНЕ**

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***Аннотация.** В связи с проводимой масштабной национальной идеологией по модернизации общественного сознания наряду с другими проблемами казахского языкознания, становится актуальным рассмотрение процессов самоорганизации лексических инноваций в ментальном лексиконе индивида. Для изучения такой сложной системы оптимальную методологическую платформу предлагает новый стиль научного мышления – синергетика. Методологическая платформа синергетики – комплекс интегративных теоретических и эмпирических методов и способов, а также универсальных принципов междисциплинарного характера. В статье анализируются виды эмпирических методов и возможности достижения результатов синергетического моделирования самоорганизации казахизированных лексических инноваций в ментальном лексиконе.*

***Ключевые слова:** лексические инновации, синергетика, самоорганизация, модель, ментальный лексикон, эмпирические методы, прайминг, альтернативный эксперимент.*