SCTCMG 2019

International Scientific Conference «Social and Cultural Transformations in the Context of Modern Globalism»

ETHNO-CULTURAL CODE OF MENTALITY THROUGH PRISM OF ASSOCIATIVE THESAURUS AND ASSOCIATIVE CHROMATICITY

Tatiana Rogozhnikova (a)*, Elvina Salikhova (b), Natalya Efimenko (c)
*Corresponding author

(a) Ufa State Aviation Technical University, 12, Karl Marx St., Ufa, 4500008, Bashkortostan, Russia
burzian@yandex.ru, 8(3472)73-78-45
(b) Ufa State Aviation Technical University, 12, Karl Marx St., Ufa, 4500008, Bashkortostan, Russia
salelah12@yandex.ru, 8(3472)73-78-45
(c) Ufa State Aviation Technical University, 12, Karl Marx St., Ufa, 4500008, Bashkortostan, Russia
efimenko@ufanet.ru, 8(3472)73-78-45

Abstract

The topic of the research is determined by the lexicographic aspects of language material, by its purposefulness for the creation of a coherent picture of the language life of monolinguals and bilinguals. The creation of tools with applied potential is connected with the problems of communication ecology. This research, conducted on the basis of the Russian language, makes it possible to predict the significance of such studies on the material of the Bashkir language. The authors consider the development of a software product based on the Bashkir language as an important stage in scientific research, which will provide the opportunity not only to conduct comparative research, but also to solve applied socially relevant tasks related to different aspects of the life of a multinational society. Using the synesthetic properties of consciousness as research units of analysis and modeling the color palette of the sound fabric of languages, the authors, applying computer technologies, express the applied potential of sound color through the manifestation of associative (psychological) chromaticity of the Bashkir and Russian languages. The applied potential of the obtained results goes beyond narrow linguistic tasks, capturing medical, legal, psychological, religious, political, and social fields of human activity. The development of such innovative technologies and related tools is in demand to improve the ecology of intercultural communication through the analysis of experimental materials and the realization of the capabilities of the already created software for decoding ethno-cultural codes of the mentality of peoples living in the Republic of Bashkortostan.

Keywords: Associative thesaurus, chromaticity, ATMBYL, BashTeS, mentality.

1. Introduction

The need to determine the standard "set" of words-reactions to word-stimulus led to the creation of the first associative norms, originally obtained for the American version of the English language and published in 1910 (Kent & Rosanoff, 1910). In 1954, Minnesota Associative Norms appeared (Russell & Jenkins, 1954). It was the beginning of the psycholinguistic research of normative associations. Then the data obtained during the experiments with the carriers of French (1955–1956), German (1957–1958), Italian (1959), Polish (1965), Slovak (1967–1968), Russian (1967–1972), Kazakh (1968), Kyrgyz (1969–1972), Uzbek (1970), Japanese (1968–1972), English (1972), Korean (1973), Yakut and Evenki (2013–2014), Bashkir and Tatar (2016 a) languages were published and proved to be in demand. In 80s-90s dictionaries were created in Ukrainian, Belarusian, Bulgarian, Hungarian, Latvian, Estonian, Finnish, Buryat, Khakass, African, Dutch, Spanish, and Vietnamese. The associative norms of the Russian language are presented in the printed and electronic "Russian Associative Dictionary" (Cherkasova, 2008), in the "Russian Regional Associative Dictionary (Siberia and the Far East)" (Shaposhnikova, Romanenko , 2014), in the "Slavic associative dictionary: Russian, Belarusian, Bulgarian, Ukrainian" (Ufimtseva, Cherkasova, Karaulov, & Tarasov, 2004), in the "Russian regional associative dictionary-thesaurus (Cherkasova & Ufimtseva, 2018, 2019). There is an "Associative Thesaurus of the English Language" (Kiss, Armstrong, & Milroy, 1972). Such associative corpuses are created in the course of the creation of associative network and are considered as language systems of knowledge about the world, characterized as mental and external in the form of semiotic and color-sound-letter objects.

Lawyers, doctors, psychologists, public and religious figures, journalists and advertising specialists need analytical recommendations and psycholinguistic diagnostics related to the assessment of the quality of product impact of speech activity. Any verbal model in any language may be subjected to the encoding and decoding procedure for a variety of parameters that relate to hidden resources of a language. This means that a specialist can create texts with specified characteristics for certain purposes. However, on the contrary, it can decode the finished verbal product of another author. Decoding results will help determine the authorship of a text (if it is unknown), assess the emotional state of a person, his intentions and ulterior motives, realize contactless lie detection contained in the discourse, establish information redundancy, associative chromaticity of a model, which is also the decoding of latent language resources and additional evidence ideas of text creator. The test version of the reference model in Russian was created on the pattern which is based on six million processed audio letters (texts of artistic works, scientific, advertising, journalistic, suggestive (prayer) texts, as well as political discourse). Text statistics is available for all types, indicating the number and frequency of occurrence of sound letters, as well as the number of processed sound letters in each text genre. It became possible to compare the reference model, obtained on the basis of frequency, with a model created on the principle of equal color participation of each sound of a language without relying on the frequency indicator (Rogozhnikova, 2018). The color matrix of the sound letters of a language is an encoded base of symbolic representations of sounds and their combinations, which have a stable spectrum of universal semantic (color) meanings common to the whole set of language implementations, which is stored in the genome and in the memory of native speakers (Efimenko, 2018).
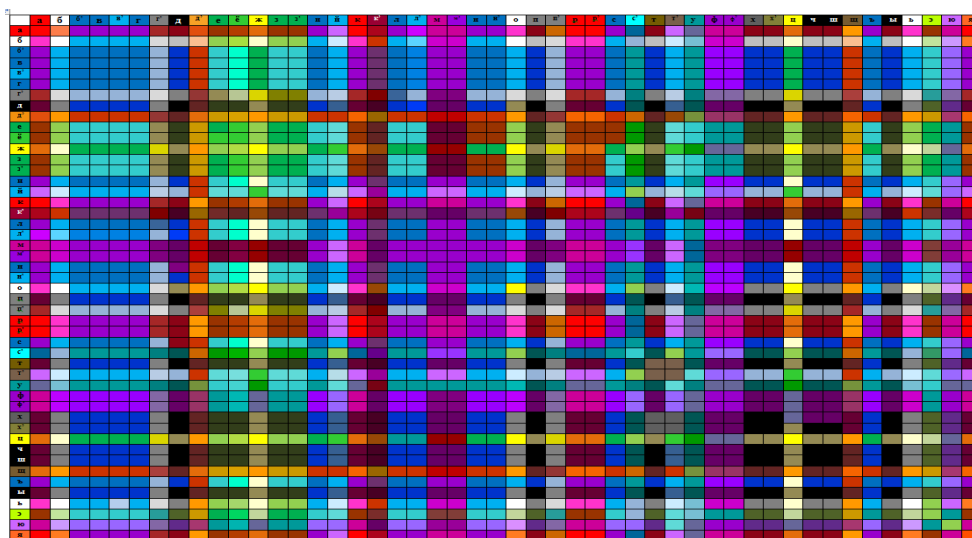
Figure 01. Color matrix of sound-letters of the Russian language

2. Problem Statement

Culture as a polycode phenomenon, is permeated with cultural codes that have the ability to transform, accepting either a symbolic (figurative) expression or a verbal (ethno-cultural codes). It seems logical to consider a certain ethno-cultural subject area: it is thesaurus and color (in the long term, sound-color) in this study (Figure 01). Due to the peculiarities of the natural environment of people, its cultural and historical development, national and cultural formation of any of the above mentioned phenomena is a specific area of culture of the people, which is reflected in the language - a certain ethno-cultural code.

Nowadays the psycholinguistic paradigm is not so rich in comparative studies performed on the material of the Turkic - Bashkir and Tatar - languages. In addition to the work on the creation of a Bashkir-language lexicographic publication, the development of innovative technologies to preserve and improve the ecology of Bashkir-speaking and, in general, Turkic-Russian (in particular, Bashkir-Russian) communication (Ayupova & Salikhova, 2018), the team of the performers of a scientific project are united by the essential point - the use of Associative Experiment (hereinafter - AE) (Rogozhnikova, 2016). During the research, a text base will be collected for the first time in order to create a reference model of associative chromaticity of the Bashkir language based on existing developments, including the ACCOUNTANT computer program created in 2014 (the authors are T.M. Rogozhnikova, D.D. Kudashov; certificate of state registration computer programs number 2014618598). This software product was created to recheck the number of models designed to display the associative color background of languages. Using this program, it is possible to calculate the number and frequency of the sound of analyzed text of the Russian language, compare the results with the indicators of average (reference) model, calculate average model for the Russian language based on the analyzed texts, compare the frequencies of the sound of thematic group of texts with average model, provide information in graphs, charts and textual information.

3. Research Questions

The associative thesaurus of the modern Bashkir language (ATMBYL = BashTeS) will become a new type of dictionary by analogy with the currently available "Associative Thesaurus of the Modern Russian Language." This dictionary will present an active vocabulary used in a specific time interval (BashTes data obtained from a questionnaire survey of respondents during the mass AE, conducted during the period from 1992 to 2018). It models the verbal memory and linguistic consciousness of a carrier of the Bashkir language in the form of an associative-verbal network in which different types of information and knowledge are displayed. BashTes is not a completed issue, it will be constantly supplemented. The stages of its modeling will be of interest to researchers in the field of socio-and psycholinguistics, general linguistics, intercultural communication. The prospects for the development of the dictionary will be realized through the addition of new stimulus and obtaining more reactions to existing ones.

The speech portraits of communicants in the multinational and multilingual conditions of modern Bashkortostan reflect speech-speaking processes, stylistic connotations, normative and non-normative aspects of the functioning of linguistic consciousness, which is important in inter-ethnic communication, the ways and forms of which can be identified when analyzing the role of signs in processes of the determination of the value of perceived word in the process of communication. During the project, a text base will be collected in order to create a reference model of associative chromaticity of the Bashkir language for the first time.

4. Purpose of the Study

The research purposes: 1) to summarize and systematize in a thesaurus the data of free AE, conducted during the period from 1992 to 2018 by the members of the research team under the leadership of T.M. Rogozhnikova; 2) to create a text database for a specific language, on the basis of which a reference model of associative chromaticity of the Bashkir language will be calculated with a specification similar to the material of the Russian language through the integration of a text database; 3) to develop a new, updated version of the ACCOUNTANT computer program for automated text analysis in Russian, as well as the KHISAPSY computer software (ACCOUNTANT) for automated text analysis in the Bashkir language, which allows calculating the number of sounds of analyzed text, determining their frequency, comparing with the benchmark models, comparing the frequency of sound letters of the thematic group of texts with the reference model, presenting information in textual and illustrative form.

5. Research Methods

The following methods are used in the research: a) the methods of generalization, systematization and statistical data processing of free AE (1992-2018) in verbal form with native speakers of the Bashkir language – the residents of Ufa, Baymak, Ishimbay, Meleuz, Salavat, Sibay, Uchaly and the representatives of the rural population of Abzelilovsky, Baimak, Beloretsky, Davlekanovsky, Zianchurinsky, Karmaskalinsky, Mechetlinsky, Uchalinsky, Khaybullinsky, Burzyansky, Iglinsky, Ishimbaisky, Gafuriysky, Duvansky, Belokataysky, Kugarchinsky, Beloretsky, Meleuzovsky and Zilairsky regions; b) the thesaurus knowledge method in linguistics and psycholinguistics, which, in the combination with others,

2680

including computer methods and specific methods of analysis, can be used in other studies of the linguistic modes of knowledge; c) the comparative method for matching the array of texts of different genres in Russian for the analysis of language models of the Russian and Bashkir languages; d) the mathematical methods of text recalculation with the output of extracted statistical information of a specific analyzed text and the development of a module for writing and reading a conjugate database, graphical interpretation of data; e) the method of visualization of reference model for the Bashkir language. According to the results of the research the following outcomes are expected a) the publication of BashTes b) the registration of the KHISAPSY computer program (ACCOUNTANT) for automated text analysis in the Bashkir language.

6. Findings

The meaning and the internal form of linguistic units concentrate a significant part of the ethno-cultural models of behavior realized by a person consciously and unconsciously. Accordingly, the development of reality in the cultural, linguistic and symbolic (code) plans cannot be universal. The mechanism lies in the fact that the signals of the external world are grouped in a certain way on the basis of culturally conditioned signs-significations or cognitive categories. The verbal embodiment of an image deserves special attention. Subject-cultural codes penetrate into the ethno-language, concentrating their components. Images, overcoming the boundaries of physical form, are verbalized. For example, the palm branch as a symbol of victory exists in its natural form and performs a symbolic function. This symbol also exists in the form of a phraseological unit - "to give up the palm", performing the same function. Non-verbal cultural codes, getting verbal expression, become linguocultural. Every carrier of ethno-culture and ethno-language learns these codes along with their native language from an early age. For most languages, white color associates with milk or snow. In Turkic languages there is an adjective with an exotic inner form - *акбуз* (about horse coat color), to which bilingual dictionaries cite Russian white-gray as the correspondence. Such categories are not immanently inherent in thinking but are perceived in the process of penetration into another culture and with the assimilation of the language.

The comparative characteristic of associations to the original stimulus of HUMAN is also specific: the modern native speaker of Russian, as well as Tatar and Bashkir is masculine, since after a HUMAN by the number of diminishing connections with other words, there are a friend, a fool, a child, a man, me, a guy; дус, курше (Turk. a friend, a neighbor) and only then a woman. In English, the picture is somewhat different: men, people, girl, woman, and person. For Russians, a person is perceived from the general to the particular, and in the English, Tatar, Bashkir languages - from the part of me; аяк, куз, танау (legs, eyes, nose, etc.) to a whole of people; кеше тэне (human body), кешелэр (people), all, etc., with a man and a woman in English having about the same ratio among the verbal associations. In the Russian language, there was no reaction characterizing a human as a person and for native speakers of the English, Tatar, Bashkir languages - this is an important component of it. The reaction of friend for the English is insignificant in comparison with the Russians, Tatars and Bashkirs: the answer of English speaking people is connected with other realities (ally, friend, companion, etc.) than for the representatives of Slavic and Islamic cultures (comrade, brother, dog, neighbors, family, relatives). Comparing specific lexemes and their semantic content in different languages, the authors inevitably state the presence of a certain mental

construct uniting them and a specific difference in the form that connect the corresponding idea to reality (Salikhova, 2015).

It is possible to speak about the language as a semiotic system that forms and transforms ethno-cultural consciousness. In this process (ethno) cultural codes take an active part, as which any sensually perceptible part of the surrounding world can be considered: plants, animals, clothes. The content side of such a system of images and its connection with other systems determines its symbolic meaning. The units of cultural codes are signs with a variable plan of expression - the same image has different variants of materialization. It can be its physical embodiment (Christmas tree, flowers for an anniversary celebrant) or its artistic image (marten on town arms of the capital of Bashkortostan; the tricolor of the Russian flag).

The qualitative interpretation of the AE results also implies the analysis of the associative links between the stimulus and the reaction in order to determine the universal and specific directions of the sound-color associative process. The comparative analysis of experimental data of sound-color correspondences carried out by different authors in 1966-2005, with materials of their own AE, made it possible to determine 26 sound letters that have partial or complete discrepancies in color value. The number of analyzed answers was 10,400. The interpretation of associative color reactions to the Russian sound letters showed that 7 sound letters out of the 26 initial stimuli changed their color image: B ’(b) - blue → light blue; L ’(e) - blue → light blue; P - black → gray; T - black → marsh brown; T ’(t) blue-white → gray-brown; X - black → gray; X ’(xb) black → gray-green (Efimenko, 2018). The results of the subsequent verification associative experiments on the clarification of the color of selected sound letters and the calculation of the percentage of repeated matches of the coloration of selected units showed the validity of the results. Thus, the tendency of associative clarification of seven sound letters was revealed. The dynamic nature of the associative content of a number of sound letters of the Russian language during diachronic analysis was established, the static nature of these connections was recorded in a synchronous section.

The data of quantitative analysis and qualitative interpretation of the stimulus series formed the basis of the specified color matrix of the sound letters of the Russian language, which became the main component of the computer program for automated word and text analysis of BARIN (the certificate of state registration of computer programs No. 2011618299, the authors are T.M. Rogozhnikova, S.A. Voronkov, N.V. Efimenko, R.V. Yakovleva).

7. Conclusion

The presented research approach provides the opportunity to form a qualitatively different understanding of the principles of the structure and functioning of language knowledge system – a Thesaurus. The focus on the role of material signifier is reasoned by the need to draw attention to the fact that the semantic side of a sign is not the only and primary essence of language knowledge. The emphasis is put on the study of structure itself, which is regarded as a verbal network formed by combinations of words. A thesaurus is considered as a linguistic system of knowledge about the world, while "linguistic" does not mean knowledge of words, grammatical categories and the ability to use them, but characterizes the nature of a thesaurus: knowledge can be considered as mental in nature and as external in the form of semiotic and color-sound objects.

In the future, the model of the sound letters of the Bashkir language will need a comparative description with similar models of the sound letters of the Russian, English, Tatar and German languages in the form of associative chromaticity pictures in which the associative colors are coded equally. This will allow visualizing the virtual internal form for which the external form of material manifestation is found. These pictures are a visual aid for the clarification of the concept of emergence, which is one of the manifestations of the principle of the transformation of quantitative changes into qualitative ones. Each sound letter, psychologically colored in a certain way, being present on the canvas next to others, will help to create a common color background of a language, not explainable through the color of individual sound letters, since each language has a full associative set of "primary colors". The psycholinguistic approach to the analysis of chromaticity does not allow using the mechanical mixing of colors and does not imply the analysis of the color spectrum in physics (Rogozhnikova & Efimenko, 2018). This kind of unconscious internal form of the existence of a particular language in color can be represented as a conscious and experimentally obtained external form.

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