

СУЧАСНІ ДОСЛІДЖЕННЯ ЗВУКОВОЇ БУДОВИ МОВИ Й МОВЛЕННЯ

METHODOLOGY OF STUDYING SEGMENTAL SPEECH UNITS' IMPACT ON THE UTTERANCE SUBLIMINAL EFFECT

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The paper advances methodological steps, i.e. expert and instrumental analyses, in the process of studying the role of segmental speech units' interaction in producing the utterance subliminal effect.

Key words: *methodology, subliminal effect, segmental units' interaction, utterance meaning, sound symbolic meaning, text emotional loading, the sound communicative energy, the individual's psyche.*

One of the issues being in the focus of speech energetic theory [10] is the causative-consecutive relations between the language segmental units and speech subliminal effect, which, as is known, have not been the subject matter of a special linguistic study.

In view of this, it was emphasized that sounds acquire a certain degree of symbolic meaning only in the context [11, pp. 51-52]. Other linguists (see, for instance, 2; 5; 6; 7 et al.) stress the role of sound organization in the processes of text decoding and its emotional perception.

The study of the text sound image showed that its sound organization is not random, but is rather in relation to its emotional loading. It was found out, in particular, that the conscious use of “light” or “dark” sounds in the text contributes to the expression of the addresser's emotional state and affects the addressee's perception of its message [1, pp. 24-25]. Thus, the English texts associated with the expression of negative emotions, for instance, are characterized by a high frequency of the so-called low “dark” vowels /ɑ:/, /ɔ:/, /u:/.

Deepening the existing ideas, V. Levitsky [7, p. 66] noted that symbolic sound meanings are, in fact, a scientific abstraction, since the sounds themselves have no meaning. However, individual sounds [6, p. 69] entering into various sound combinations, still retain their basic physical and emotional-and-logical properties as well as have different sound-symbolic potential. This explains Z. Harris' view [9, p.

188] that the scholar should search for the linkage between the word sound image and its meaning not among individual phonological elements, but rather among sound combinations and their sequences. In view of this, only two word morphemic elements, according to G. Marchand [12, pp. 323-324], are relevant for decoding the meaning of any speech segment: the initial consonant (or consonants) preceding the vowel, and final sounds, i.e. the vowel and final consonant(s).

The ideas on the sound and meaning relation considered above prove that the semantic system of the language is fixed in the image-bearing and semantic structure of the text, responsible for the process of symbolization, including the semantization of phonetic units. This process is based on the phenomenon of the sounds' acquisition of a symbolic meaning which in speech coincides with the meaning of units of other language levels. Consequently, the phonetic text-forming means, signaling the presence of a certain word meaning or its shade, participate indirectly in meaning formation, i.e. by sound differentiation of components' meaning that takes place in communicants' consciousness.

At the same time, it is quite obvious that the sound communicative energy, determined by the meaning of a word or utterance, initiates cognitive mechanisms of the individual's psyche. These mechanisms excite the listener's emotional sphere that ensures the active interaction of logical and emotional beginnings of his/her psyche, as a result of which the perceived sound and meaning, acquiring the psycho-energetic potential as a definite meaningful unity, realizes its subliminal effect.

As we see, the problem of segmental units' role in producing the speech subliminal impact is very complex. It is also clear that in the process of the study of a new object, considering the absence of scientific information about specific factors or reasons that affect its functioning, the application of the multifactor research method [4, pp. 97-182] seems rather effective since this method allows ranking the nomenclature of segmental units according to their significance. Thus, the process of segmental units' influence on the utterance subliminal effect should be presented in the form of a widely known mathematical model of any system under study (see: [8; 3, pp. 105-121]), termed as the "black box" in cybernetics.

It is natural that to describe such a system it is necessary in the first place to define its structure, functions and relations. Generally, the full four-level structure of the system under analysis should include separate sounds, syllables and words as well as their combinations and connections within the utterance as the constituent elements of this system. However, in other cases, the researcher is free to model such schemes of the black box, whose structural elements are individual sounds, syllables, words, utterances as well as their all possible combinations.

For the experimental establishment of the segmental units' influence on the utterance subliminal effect, it is sufficient to consider the structure of a two-level system, whose elements are separate sounds and syllables, as well as connections existing between them.

In this case, it is necessary, firstly, to determine the range of vowels and consonant sounds existing in a language and their possible combinations in syllables and words. The methods of the cybernetic theory of morphological analysis and system synthesis, as is known, allow one to define the required nomenclature of sounds.

In order to achieve this, it is sufficient to get abstracted from the sounds articulatory features and to confine to such significant elements of the vocalic and consonantal systems, whose alternative interactions and combinations form syllables. Taking into account the vowels and consonants as the classification features, we obtain the opportunity to build a morphological matrix of the patterns of vowels and consonants interaction in syllables in the process of the utterance meaning generation.

The structural elements of the system under study form the alternative field of potentially possible combinations of various vowels and consonants inherent to human speech. In other words, we can acquire the matrix presenting the range of sound combinations, potentially functioning in speech.

In the process of solving this issue, it is advisable to pay attention to the possibility of differentiating syllables according to the following features: the quantity of vowels and consonants in them, their distribution, qualitative characteristics of sounds (for vowels – length, height, row, etc.; for consonants – presence or absence of voice, palatalisation and its degree, fricativeness, laterality, nasality, etc., as well as the associations evoked by individual sounds and their combinations (positive / negative, light / dark, large / small, evil / kind, dangerous / comfortable, near / far, etc.).

From a methodological point of view, it is expedient to plan as a first step of the research the so-called extreme experiments, whose result will be a direct identification of the maximum subliminal effect of definite segmental units on the recipient's psyche. The second stage involves the organization of experiments that allow the researcher to optimize the results of all the language means interaction while producing the utterance subliminal effect.

As for the quantitative assessment of the subliminal effect intensity, it is rational to implement it in two ways: by expert analysis and instrumentally. The expert method is well known in linguistics. It is traditionally applied with the use

of a relative scale (100%) for assessing the degree of the utterance subliminal effect on the recipient in general and its segment units in particular.

Concerning the technical means of experimental verification of the sound means' subliminal effect, at present there are numerous devices, like: encephalographs, tomographic scanners (positron-emission tomography scanner, Magnetic Resonance Imaging), single-photon emission computer-aided tomography (single-photon imaging with gamma camera). However, not all of these devices are still widely available to linguists. Therefore, today the researchers can use the methods of quantitative electroencephalogram and single-photon emission computer tomography or more simple methods such as registering or recording the blood pressure, pulse and pupillary dilatation, the degree of sweat secretion and other known and available instruments that register the speakers' psychological and physiological states.

We shall point out here that the results obtained by the expert and instrumental methods should be compared on the basis of their prior rate setting (i.e. making them dimensionless). What remains to be added is that a complete description of the phenomenon of speech sounds influence on recipients can be performed only on the basis of a statistical generalization of their perception of utterances and texts of various styles.

We believe that the methodological views presented in the paper, aimed at studying the segment units' influence on the utterance subliminal effect, can be used as a logical and methodological tool for further scientific development of the linguistic problem under study.

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