SOME FUNCTIONAL-STYLISTIC FEATURES OF THE MODERN SCIENTIFIC TEXT

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Summary: The article deals with functional-stylistic features of the modern scientific text. The categorical features of the scientific style are described. The authors of the article note that the style of scientific literature has changed significantly over the past 30-50 years under the influence of sociolinguistic factors and the scope of use of scientific and technical terminology is significantly expanding. The urgency of the problem, despite the great tradition of studying this issue in Ukrainian and foreign linguistics, is shown.

Keywords: functional-stylistic features, modern scientific text, categorical features of the scientific style, scientific and technical terminology, cognition

The dynamics of language development is always based on the functioning of language units of different levels. Any usual changes begin in the field of speech activity, among the infinite number of occasional innovations and transformations that penetrate into all without exception the structure of the language hierarchy. Language lives in an endless creative movement, which is strongly influenced, in particular, by extralinguistic factors associated with the processes of cognition. Cognition refers to "the mental action or process of acquiring knowledge and understanding through thought, experience, and the senses".[1] It encompasses many aspects of intellectual functions and processes such as: attention, the formation of knowledge, memory and working memory, judgment and evaluation, reasoning and "computation", problem solving and decision making, comprehension and production of language. Cognitive processes use existing knowledge and discover new knowledge. [2]

Modern functional and stylistic research also analyses the processes of reflection of communicative and cognitive activities of man in the organization of the text, its stylistic coloration. As for the scientific style [3], or the style of scientific literature, which is the subject of our study, it has undergone significant changes over the past 30-50 years under the influence of sociolinguistic factors. In modern post-
industrial society, we observe not only the rapid development of science and technology, but also their certain democratization: scientific and technical achievements are being actively promoted by the media, becoming more accessible to the general public. The style of scientific speech is changing, numerous genres are being formed (catalogues, reference books, instructions, popular articles, advertising). They do not violate the identity of style, but have certain individual differences. It is obvious that the scope of scientific and technical terminology is expanding today; a huge number of terms are in common use. This fully applies to both general scientific and general technical terms and phrases operating in the field of scientific communication.

The main purpose of the language of science was and remains the proof of hypotheses, the creation of new concepts and the disclosure of the internal laws of existence, development and relations between phenomena and so on. Therefore, the categorical features of the scientific style were and remain informativeness, consistency, accuracy and objectivity. [3] The language tools used in scientific texts generally meet these requirements.

One of the features of the scientific style is traditionally considered to be impersonality, emotionless presentation, which is manifested in the choice of certain lexical and grammatical forms. In our opinion, this feature of the scientific style has changed at the present stage.

N. M. Razinkina [4] interpreted the reason for the presence of emotional vocabulary in the first issues of the journal Nature as the lack of clear arguments and proven facts. The words marvellous, wonderful, monstrous, magnificent, brilliant were not usually used in scientific discussions of the 19th century.

I. R. Halperin agreed that “in modern scientific prose such emotional words are very seldom used. Nor can we find emotional structures or stylistic devices which aim at rousing aesthetic feelings” [5]. Today, it is difficult to agree with this statement, because in modern scientific and technical texts are often found expressive lexical forms and grammatical constructions, more typical for the conversational style. This is especially apparent in the genres of popular science articles and advertising, which border on the journalistic style and the emotionality and subjectivity of the presentation of the material sheds light on the individuality of the author. We will give as examples some statements from modern English-language technical journals.

This happens because PC processors got much faster, and digital signal processors are more widely used. In fact, DSPs are evolving into real commodity multimedia workhorses. (Byte, 2017, June)

They often resemble hybrid CPU that blend CISC, RISC and DSP architectures in fascinating ways. (Byte, 2007, July)

The advent of multimedia extensions technology, general-purpose processors are catching up. (Byte, 2012, August)

While not as sexy as CPU MHz speeds … additions … and the ability to share data with other servers are essential. (Byte, 2017, June)

Use of the i960 as a distributed intelligent processor … reduces bottlenecks from overloaded channels. (Byte, 2017, May)

Wavelets have had short and troublesome history. It seemed to be forever confined
to footnotes in textbooks on Fourier theory. (Wavelet Analysis, Elsevier, 2002)

Stephan Mallat was not the farther of wavelet theory, but he was certainly an evangelist. (A Wavelet Tour of Signal Processing)

The construction of the author's presentation in the first person plural is traditional for the scientific style, which is typical for most genres. This form can be interpreted as evidence of impersonality, but, on the other hand, it creates a sense of complicity, interactivity, engages the reader in the process of proving a hypothesis, the reasoning of the scientist, which is undoubtedly a manifestation of emotionality. In English texts, it is quite common to use the pronouns you, we, yourself, etc. Often the authors use imperative and interrogative constructions.

Where other mid-range generators make you buy add-ons to do common tasks, the new SMBV comes fully equipped to do the job. (Microwave Journal, 2019, March)

The new vector-signal generator – your declaration of independence! (Microwave Journal, 2019, March)

Do not wait; choose the MMIC model! (Microwave Journal, 2017, February)

We have engineered an impressive range of power amplifiers that tower above industry averages. (Microwave Journal, 2020, January)

Emotional and expressive elements of scientific and technical texts are their important components that reflect the dynamics of the living functioning of the language of scientific communication. They pose significant difficulties in translation. Scientific and technical materials contain the latest lexical phenomena – occasionalisms, neologisms, etc. Dictionaries, of course, are limited to revealing the semantics of such words and phrases in common language usage. Issues of quality of scientific and technical translation are extremely relevant today in the context of globalization, internationalization of science, the need for quick and full exchange of information, especially in English.

The impossibility to use dictionary equivalents as translational ones necessitates different types of transformation, first of all, lexical ones. Despite the great tradition of studying in Ukrainian and foreign linguistics, this problem is still relevant.

References: