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**INFORMATION LINGUISTICS AS ONE OF THE NEWEST AREAS  
OF LINGUISTIC RESEARCH**

**ІНФОРМАЦІЙНА ЛІНГВІСТИКА ЯК ОДИН ІЗ НОВІТНІХ НАПРЯМІВ  
ЛІНГВІСТИЧНИХ ДОСЛІДЖЕНЬ**

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The article gives in detail information linguistics as one of the newest directions of linguistic research. The position of researchers on the need to distinguish between these concepts was outlined. The sciences with which it is closely intertwined were singled out. The views of various well-known linguists-scientists on the research problem have been studied. The interaction of the language information subsystem with other information external environment systems was analyzed. It was highlighted that the language unit as a kind of material objects under certain conditions of functioning can act as a source of information. It was proved that this approach coincides with the views of this problem of cognitive psychology, which studies ways to obtain information about the world, forms of human representation of this information, forms of its storage in memory and transformation into knowledge, and the impact of this knowledge on attention and human behavior. The clear purpose of the chosen topic was determined, which was conditioned by the general tendency of modern linguistic studies within the limits of information linguistics. It is stated that in the circle of linguistic sciences the direction which can be characterized as information linguistics is naturally allocated. It was proved that the interaction of scientific directions in the study of natural language within the information linguistics in the performance of the above tasks, the solution of which is possible only with the integration of different areas of science. It was concluded that linguistic means of expression of different types of information are perceived by us as a subject for research within the information aspect of cognitive linguistics, which, on the one hand, is integrative, i.e. combines the achievements

of different areas of traditional linguistics, and on the other the approach there is a link between traditional linguistics and related sciences. It was postulated that the information aspect of linguistics is so universal and promising for further research and application that it requires increased attention from linguists. Prospects for further research of this scientific problem were determined, which are the need and necessity for significant integrated efforts of multidisciplinary teams of scientists for the development of this scientific issue.

**Key words:** information linguistics, cognitive linguistics, traditional linguistics, information, knowledge, artificial intelligence, communication environment, language tools.

У статті детально описано інформаційну лінгвістику як один із новітніх напрямів лінгвістичних досліджень. Окреслено позицію дослідників щодо необхідності розмежування даних понять. Виокремлено науки, з якими вона тісно переплітається. Досліджено погляди різних відомих лінгвістів-науковців щодо проблеми дослідження. Проаналізовано взаємодію інформаційної підсистеми мови з іншими інформаційними зовнішніми системами середовища. Висвітлено, що і мовна одиниця як різновид матеріальних об'єктів за певних умов функціонування здатна виступати джерелом інформації. Доведено, що такий підхід є співзвучним поглядам на зазначену проблему представників когнітивної психології, що вивчає способи отримання людиною інформації про світ, форми уявлення людиною цієї інформації, форми її зберігання в пам'яті й перетворення на знання, а також вплив цих знань на увагу і поведінку людини. Визначено чітку мету вибраної теми, яка зумовлена загальною тенденцією сучасних лінгвістичних студій у межах інформаційної лінгвістики. Констатовано, що в колі лінгвістичних наук природно виокремлюється напрям, який можна охарактеризувати як інформаційну лінгвістику. Доведено той факт, що особливої актуальності набуває взаємодія наукових напрямів у дослідженні природної мови в межах інформаційної лінгвістики під час виконання нею зазначених вище завдань, вирішення яких можливе лише за умов інтеграції різних напрямів науки. Зроблено висновок про те, що мовні засоби вираження різних типів інформації сприймаються нами як предмет для дослідження в межах інформаційного аспекту когнітивної лінгвістики, який, з одного боку, є інтегративним, тобто об'єднує досягнення різних напрямів традиційної лінгвістики, а з іншого боку, інформаційний підхід є з'єднувальною ланкою традиційної лінгвістики із суміжними науками. Постулюється факт про те, що інформаційний аспект лінгвістики є настільки універсальним і перспективним для подальшого дослідження та застосування, що потребує посиленої уваги з боку лінгвістів. Визначаються перспективи подальшого дослідження цієї наукової проблеми, які полягають у необхідності та потребі значних інтегрованих зусиль різногалузевих колективів науковців для розвитку даної наукової проблематики.

**Ключові слова:** інформаційна лінгвістика, когнітивна лінгвістика, традиційна лінгвістика, інформація, знання, штучний інтелект, комунікаційне середовище, мовні засоби.

**Formulation of a research problem.** Modern research in various fields is characterized by increased attention to the information aspects of language and thinking as fundamental factors of linguistic support of intelligent systems, whose participation in creating a modern communication environment is a characteristic feature not only of today but also of future information and knowledge society. In this regard, the problems of the information essence of language, which is considered as one of the information systems, become especially relevant.

**Analysis of the researches and publications into this problem.** In the linguistic literature, the concept of “information” is often identified with the concept of “knowledge”, these terms are perceived as interchangeable, synonymous. Often one concept is interpreted through another, for example: “Knowledge – *information* available in the human mind, which serves to solve intellectual and linguistic problems, is used in everyday cognitive and speech activities, determines human behaviour” [6, p. 168]. Among specialists in computer science, cybernetics and information theory, from which the concept of “information” has spread in general, there is no clear differentiation of the terms “information” and “knowledge” [4, p. 91–99; 2, p. 32 and others].

Recently, the linguistic literature has clearly outlined the position of researchers on the need to

distinguish between the concepts of «information» and “knowledge”. Thus, V.A. Shirokov, understanding verbalized and structured information, stressed that the differences between knowledge and information are in the objective nature of information and the subjective nature of knowledge, which makes them essentially almost opposite [8, p. 60–61]. For information to be transformed into knowledge, i.e. for the public use of information, it must become a factor of consciousness – first individual and then collective, accompanied by certain transformations and interactions between mental and linguistic structures [Ibid]. This approach is a consonant view of this problem of cognitive psychology, which studies ways to obtain information about the world, forms of human representation of this information, forms of its storage in memory and transformation into knowledge, as well as the impact of this knowledge on human attention and behavior.

The key concepts of “knowledge” and “information” are clearly differentiated in cognitive psychology: knowledge is formed from information through its transformation, transformation and ordering [7, p. 335]. That is, information, organized and systematized taking into account natural cognitive models, can be transformed into successfully created cognitive structures adequate to human knowledge.

Comparing information in natural and artificial intelligence systems, we note that in both cases

the process of information perception is associated with memory. However, in artificial intelligence systems, memory is a conditional term, and information under appropriate technical conditions is always ready for use, in contrast to the natural intelligence of man associated with a psychological state, and therefore one that is short-lived, one that transforms into passive. Information that passes through the senses and human consciousness cannot be turned into knowledge. It remains in the “far corners of memory” unrealized, unused, as if waiting for certain conditions under which there will be an opportunity to transform it into knowledge. Therefore, in order for information to become knowledge, it is necessary to transform information, pass it through the human senses and consciousness, i.e. enriching it with sensory component and evaluation-analytical component, as well as socio-psychological characteristics of the participant. Knowledge generated by human intelligence can act as a source of qualitatively new information for the passage of a new cognitive circle:

information + human factor = knowledge > INFORMATION (qualitative language) [9, p. 21].

**Statement of the problem** of the proposed material is to substantiate the need for a special integrative direction of linguistic research – information linguistics.

In our opinion, based on the distinction between «information» and “knowledge” within cognitive linguistics, the object of which is traditionally considered knowledge, it is advisable to distinguish the information approach to the analysis of linguistic phenomena, which should be perceived as one of its areas – information, transmitted by language.

In connection with the above, it can be stated that in the field of linguistic sciences naturally distinguishes a direction that can be described as information linguistics. The object of information linguistics is the information substrate of language, associated with its substantial nature; its subject is the linguistic means of production, transmission, storage, processing, assimilation of information.

From the above follow the main tasks facing the field of information linguistics: linguistic interpretation of information and informativeness, study of cognitive and communicative varieties of informativeness, determination of qualitative and quantitative parameters of informativeness, systematic separation of elementary units of linguistic information, determining their role and method exchange; research of the influence of non-verbal factors on the nature of information exchange and interaction, linguistic modeling of information processes, eluci-

ation of ways to adjust the information saturation of language units, etc.

**Statement regarding the basic material of the research.** The information subsystem of language interacts with other information external systems of the environment, together with which it participates in the creation and functioning of the modern communication environment with its inherent strengthening of the role of technological component in the form of computer technology (primarily, intelligent systems). To this end, information linguistics requires the use of integrated data from different sciences, not only different areas of linguistics (cognitive, communicative linguistics, semantics, psycholinguistics, semiotics, stylistics, textology, discourse, etc.), but also other information sciences (information theory, cybernetics, psychology etc). For informology as an association of sciences whose object of study is information, information linguistics is an integral part of it, just as cognitive linguistics is a component of cognitology. The integration of sciences and research, which is the basis of information linguistics, is based on the principle of expansionism – one of the four principles of modern linguistics, identified by A.S. Kubriakova (along with the principles of anthropocentrism, explanatory and functionalism), which is reduced to incorporation of theoretical achievements, conceptual apparatus, methods and techniques of other sciences into linguistics [3, p. 207; 9, p. 21].

The desire for the integrity of knowledge can be traced back to Baudouin de Courtenay, who predicted that “linguistic generalizations will cover a wider range and more and more combine linguistics with other sciences: psychology, anthropology, sociology, biology” [1, p. 2, 18]. Modern researchers, taking into account the emergence of new scientific areas, in particular cybernetics, this prediction is confirmed: “It is at the intersection of different sciences that linguists should look for truly accurate methods of verifying and substantiating linguistic statements [...], otherwise it (linguistics) is in danger of becoming an exotic field of knowledge, interesting and accessible only to linguists” [5, p. 10; 9, p. 22]. The interaction of scientific directions in the study of natural language within the framework of information linguistics in the performance of the above tasks, the solution of which is possible only with the integration of different areas of science.

The generalization of the above allows us to perceive information as an objectively existing property of the material world, the realities of which in natural speech are manifested in the form of verbalized concepts.

Each of these material objects is a carrier of complex information, i.e. the language unit as a kind of material objects under certain operating conditions can act as a source of information of different types.

**Conclusions and prospects for further research.**

Linguistic means of expression of different types of information are perceived by us as a subject for research within the information aspect of cognitive linguistics, which, on the one hand, is integrative, i.e. combines the achievements of different areas of traditional linguistics (formal-structural, functional, communicative, actant – role, semantic, transformational, onomasiological/semasiological, ideographic, analytical, etc.) based on the main achievements of each of them (constructive syntax, expression theory, actual articulation of language, component analysis, basic unit and its transformations, etc.). On the other hand, the information approach is a connecting link between traditional linguistics and related fields –

cognition, computer and information sciences, psychology, physiology and more. That is, in addition to purely linguistic characteristics, the informational aspect of language analysis is enriched by approaches specific to these linguistic sciences, among which the most important are modeling, formalization of language structures, network representation of mental-cognitive systems, knowledge structuring, information transforming in the process of language generation, linguistic means of different types of information, which is the implementation of the category of informativeness in the linguistic sphere, etc. Thus, the information aspect of linguistics is so universal and promising for further application that it requires increased attention from linguists.

The implementation of the tasks facing researchers of the informational aspects of language requires significant integrated efforts of multidisciplinary teams of scientists.

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