Тіл және әдебиет: теориясы мен тәжірибесі　　　**Том 3, N°4, 2024**

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COGNITIVE LINGUISTICS: ANALYSIS OF SCIENTIFIC PUBLICATIONS IN SCOPUS

Abstract. The article analyzes scientific works related to one of the emerging fields of linguistics – cognitive linguistics. The increase in the number of publications in the Scopus database from 1976 to 2023 underscores the relevance of the proposed topic. The aim of the study is to analyze trends and directions in the field of cognitive linguistics through a systematic review of 4,985 scientific articles. The research methodology includes data collection and analysis using SPSS to determine the dynamics of publication growth, as well as the geographical and sectoral distribution. The theoretical significance lies in expanding knowledge about the cognitive aspects of language and highlighting the multidisciplinary nature of this field. The practical significance is reflected in its contribution to the development of inclusive language practices and the formation of a deeper understanding of cognitive issues in linguistics. The research findings contribute to the advancement of general linguistics, cognitive linguistics, pragmatic linguistics, communicative grammar, functional stylistics, and others. The results of the study confirmed a significant increase in publication activity in this field and clearly demonstrated the global and interdisciplinary interest in cognitive research in linguistics.

Keywords: cognition, linguistics, linguistic diversity, linguistic analytics, multidisciplinarity, semantic analysis, Scopus.

Introduction

Cognitive linguistics, which is a multidisciplinary field at the intersection of psychology, linguistics, and cognitive sciences, has established itself over the past decades as an important field of research aimed at understanding the mechanisms of linguistic perception and thinking processes. The analysis of scientific publications in the Scopus database on this topic allows not only to trace the dynamics of interest in this discipline but also to identify key areas of current research, as well as the most influential works and

authors. Thus, the relevance of the article lies in the fact that it offers a comprehensive overview of the state of cognitive linguistics at the present stage of its development, identifies new trends and challenges in this field, which is undoubtedly of interest to a wide range of researchers dealing with language and thinking. The use of VOSviewer and Bibliometrix tools for bibliometric analysis, as noted by Cruz-Lovera et al. (2017), as well as an in-depth search for specific keywords in Scopus, highlighted in the work of Pakkan et al. (2022), has become standard practice in scientific research. This not only provides a comprehensive coverage of citations and literary excerpts, but also expands the profile of journals, improving access to scientific publications and contributing to citation analysis. This approach allows us to identify key aspects and issues that occupy the minds of researchers, and also contributes to the development of new methodological approaches and practical recommendations for further study of the linguistic landscape in its diversity.

The study of cognitive linguistics and the analysis of scientific publications in databases such as Scopus play a key role in the development of modern science, providing an understanding of the dynamics and trends in the international scientific community (Leogrande et al., 2022). This is especially important in the context of studying user experience in education, where the analysis of scientific production reveals relevant research areas (Ordoñez-Obando et al., 2022). Evaluation of publication activity and scientific influence based on citations and indexing in Scopus is an integral part of the analysis of research impact (Wasis et al., 2022). Automated analysis of scientific literature, the improvement of information retrieval systems using neural networks (Bruttan et al., 2021), as well as understanding the motivation for publications (Mustofa et al., 2019), are also significant factors. In the context of the COVID-19 pandemic, the impact analysis of scientific publications highlights the adaptability and response of the scientific community (Almeida, 2022), emphasizing the need to address plagiarism and ethical considerations in scientific publications to maintain research integrity (Facina et al., 2020; Rode et al., 2018; Oliveira, 2017). In general, this topic is relevant for improving competencies in scientific publications among educators and researchers, contributing to the dissemination of knowledge and academic development (Dihamri et al., 2019).

From 1976 to 2023, a comprehensive analysis of scientific publications in Scopus using the keywords "cognitive" and "linguistics" found 4,985 papers, reflecting a deep interest in cognitive linguistics on the international arena. The United States is particularly active in this field with 1,349 publications, followed by Great Britain and Germany with 481 and 303 papers, respectively, showing the geographical diversity of research. China (275), Spain (261), and Italy (239) also make significant contributions, demonstrating the breadth of research interest and academic activity in these countries. The Russian Federation is also significantly present with 159 publications. The distribution of publications confirms the comprehensive global interest in cognitive linguistics and its applications, including countries with a lower number of publications, such as Kazakhstan (18), which indicates the universality and importance of this discipline in various cultural and linguistic contexts.

Kazakhstani researchers continue to make significant contributions to the study of cognitive linguistics. Thus, in the works of the Kazakh scientist Z. Temirgazina, published in the Scopus database since 2013, such aspects of cognitive linguistics as cultural scenarios and frames (Temirgazina, 2013a; 2013b; Temirgazina, et al., 2023), cognitive aspects of the "naive anatomy" of the Kazakh language (Temirgazina, et al., 2020), etc.

are studied. The work of F.A. Ospanova and G.Z. Ubaidullayeva "The linguistic and cultural aspects of the study of bilingualism" (2014) focuses on the influence of cultural factors on bilingualism and explores methodological approaches to linguistic and cultural analysis. It is also worth noting the study by A.B. Amirbekova, K.U. Esenova, and A.O. Tymbolova "Lingocognitive mechanisms of the formation of national worldviews of the Kazakh people" (2013), which analyzes how linguocognitive mechanisms form ideas about the world among the Kazakh people through the prism of phraseology and cultural elements. In the work by G. Liliya, S. Leysan, and S. Zharkynbekova "General trends in comparative cognitive science" (2020), examines the main directions of the development of cognitive linguistics, including cultural and linguistic features, which is also relevant to the Kazakh context. The study of S.A. Zhirenov and his colleagues "The cognitive content of the world of symbols in language" (2016) emphasizes the importance of symbols in language and their connection with cultural identity. These works demonstrate how Kazakhstani scientists contribute to the development of cognitive linguistics by exploring unique aspects of language and culture, which emphasizes the importance of this discipline in the context of the diversity of cultural and linguistic traditions.

The purpose of our study is to conduct a comprehensive analysis of scientific papers indexed in the Scopus database from 1976 to 2023, using the keywords "cognitive" and "linguistics". We aim to identify key trends, thematic streams, and methodological approaches in this area. The objectives of the study are: a qualitative and quantitative assessment of publication activity and its dynamics over the specified period, an analysis of the geographical distribution of research, and the identification of leading contributing universities and scientific journals. This will enable us to identify key research centers and reputable authors, as well as gaps and insufficiently developed areas in cognitive linguistics. Based on the collected data, we will propose potential areas for future research that promote understanding of linguistic and cognitive processes. Ultimately, this will contribute to the development of methods and strategies for establishing effective dialogue between linguistic communities in multicultural and social contexts.

Material and Methods

The study, covering the period from 1976 to 2023, is based on an analysis of 4,985 publications selected in the Scopus database using the keywords "cognitive" and "linguistics". This multifaceted collection of scientific papers includes articles (2,553), conference proceedings (1,376), review articles (295), book chapters (205), books (72), and other forms of academic publications. This approach provides a comprehensive understanding of the current state and evolution of cognitive linguistics. It provides an opportunity to evaluate the contribution of various research formats to the development of this dynamic area of linguistic research.

In addition to a wide range of formats, the analyzed materials are also presented in various scientific publications, enriching the study with a variety of perspectives and approaches. Special attention is paid to such journals as "Lecture Notes in Computer Science including Subseries Lecture Notes in Artificial intelligence And Lecture Notes in Bioinformatics" with 151 publications, "Cognition" with 78, and "Trends in Cognitive Sciences" with 72 publications, each of which makes a unique contribution to the study of cognitive linguistics.

The Scopus database, the world's leading scientific information platform providing extensive access to academic research, has been selected as a fundamental tool for data

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collection and primary analysis. This is a deliberate choice due to the complexity and relevance of the data presented in Scopus, which includes information about the citation of publications and their impact on the academic community, as well as provides an opportunity to assess trends in cognitive linguistics.

For detailed data analysis and processing, the SPSS (Statistical Package for the Social Sciences) software package is used, which offers a wide range of statistical tools suitable for both descriptive and inferential statistics. The advantages of SPSS include a user interface, the ability to process large amounts of data, and advanced functions for multi-level analysis, which makes it an ideal choice for our research. Stopword analysis was also performed using the Orange program to remove irrelevant terms, which made it possible to classify materials by topic and identify twelve research questions.An integrated approach to analytical work based on the use of the Scopus database and the SPSS program provides the necessary structure and depth for conducting our multidimensional research in the field of cognitive linguistics. These tools, with their extensive capabilities and precision, ensure the reliability and validity of our research process.

The procedural analysis begins with a careful selection of materials in the Scopus database using the keywords "cognitive" and "linguistics". Data extraction includes not only the types of documents and the years of their publication but also analyzes the citations to understand their contribution to the field of cognitive linguistics. This process involves a differentiated approach to each type of publication, ensuring an objective and comprehensive collection of data. Detailed data processing is performed using SPSS, including cleaning from duplication and preparing a dataset for further analysis.

Next, a descriptive statistical analysis is carried out, which gives us the basis for understanding the overall picture of research activity. Inferential statistical methods are used to identify hidden relationships between different research approaches in cognitive linguistics. Content analysis complements the quantitative approach by providing a deeper understanding of the prevailing themes and ideas. In addition, the contribution of leading scientific journals is evaluated through a citation analysis, which makes it possible to determine their influence in the academic environment.

The fifth stage of the procedure involves data visualization, during which illustrative materials such as graphs, charts, and tables are created. These visual tools help not only in interpreting data but also in presenting research results in an accessible and understandable way. The final stage involves synthesizing all the collected data into a single analytical record that reflects all aspects of our research and serves as the basis for writing a scientific article.

Our methodology ensures the rigor of the research process and reproducibility of the results, which is the foundation for achieving objectivity and scientific reliability. The use of the Scopus database in combination with the capabilities of SPSS ensures efficient data collection, analysis, and presentation, emphasizing the academic value of our research. This approach not only deepens our understanding of cognitive linguistics but also promotes interdisciplinary dialogue in this rapidly developing field of knowledge.

Cognitive linguistics is a multidimensional phenomenon studied at the intersection of psychology, linguistics, and neuroscience. The work Buffart and Jacobs (2021) emphasize that language structures arise and develop through the interaction of cognitive mechanisms such as chunking, memory storage, analogy, and intermodal connections. Research by Romeo et al. (2018) expands the understanding of the impact of language experience not only on language domains but also on broader cognitive aspects. Also

important in the analysis is the work of Han (2020), which studies the cognitive aspects of terminology and metaphor translation. Warren's Research and Dresang (2020) and Chater (2018) show that hierarchical internal structures in the cognitive processing of language and events are key to understanding the mechanisms of language processing and their relationship to other cognitive functions.

Metaphor is central to cognitive linguistics, especially when it comes to conceptual integration. Sosnin's research highlights the importance of conceptual metaphors for understanding how we perceive abstract concepts through projection onto more specific domains. These processes of metaphorical transfer, where one conceptual domain is projected onto another, underlie conceptual formation and categorization (Sosnin, 2017). Bobrova and Ivanova reveal the use of animal metaphors in economic texts, demonstrating how figurative language serves to convey complex economic ideas. This highlights the role of metaphors in various fields, including economics, politics, and education. The analysis of the metaphorical representation of space in various types of texts in 2019 shows how metaphors shape perception and ideology in political discourse. A study of the translation of synesthetic metaphors in Baudelaire's poems (Iaroshenko, 2018) illustrates the difficulties translators face when working with metaphors in literary works. Saparbayeva and Sisengali (2019) identified the importance of studying metaphors in intercultural communication between Chinese and English, emphasizing the influence of cultural differences on conceptual metaphors used in communication. Metaphors in medical terminology, as shown by Manik and Korytova, play a key role in shaping understanding and communication in highly specialized fields. The theory of cognitive metaphor has evolved over time, which has led to the creation of integrated theories aimed at a comprehensive understanding of metaphorical processes (Novitskaya, 2019). The works of Potseluev and co-authors discuss the impact of metaphors on various aspects of society, including education, politics, and the media, showing how metaphors shape perceptions, values, and beliefs (Potseluev et al., 2022). The analysis of metaphors in various contexts reveals their importance in shaping public consciousness and worldview.

Concluding the literature review, we can say that cognitive linguistics opens up new horizons for understanding language and thinking. The analysis of the presented works highlights the multilevel influence of cognitive processes on language structures, metaphorical understanding, and linguistic diversity. Such research provides a comprehensive look at the complex interactions between language and cognitive processes, enriching the theoretical foundations and offering practical applications in various fields, from education to neurorehabilitation.

Results and discussion

A multi-level analysis of 4,985 publications covering the period from 1976 to 2023 reveals a significant increase in academic interest in cognitive linguistics. The time trajectory of publications reflects not only a quantitative increase in research but also an increase in the depth of analysis in this area. The geographical analysis shows the expansion of the research base beyond the traditional academic centers, emphasizing the contribution of numerous countries and cultures to the development of the discipline. The sectoral section confirms the multidisciplinary nature of cognitive linguistics, revealing its intersection with fields such as psychology and neuroscience. An inspection of publications by individual organizations and scientific journals identifies key research centers and leading journals shaping the direction of scientific debate in this sector. The

analysis of keywords in the titles of publications highlights prevailing topics such as "cognitive development," "language perception," and "metaphorical modeling." The citation of works reflects their impact on the scientific community, with some studies receiving a particularly high degree of recognition, indicating their central role in academic discussion and contributing to the promotion and development of cognitive linguistics.

An analysis of the publication activity on cognitive linguistics in the Scopus database from 1976 to 2023 reveals a dynamic development of interest in this field. There is a gradual increase in the number of studies: from 47 in 1976 to 374 in 2023. This trend illustrates the increasing attention to the cognitive aspects of language and their connections with other disciplines. The beginning of the period is characterized by stable but moderate growth, which turns into a more pronounced takeoff after 2008, reflecting growing academic interest and expanding research horizons (Fig. 1).
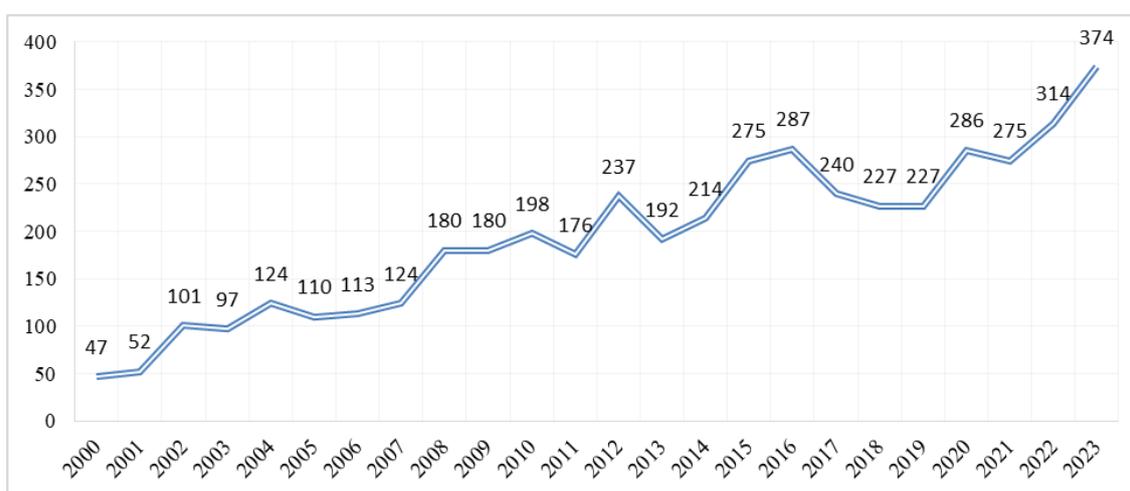

Fig. 1. Dynamics of publication activity in the field of cognitive linguistics: analysis of Scopus data for 2000-2023 (Source: own calculations based on data from publications indexed by Scopus)

Since 2010, there has been an acceleration in the number of publications, peaking in 2012 with 237 papers. After a slight decline in 2013 and 2017, the subsequent upswing continues the trend of increasing research volumes, which may be due to the integration of cognitive linguistics into broader fields of knowledge and an increase in its applied importance. A significant number of publications in recent years have emphasized the importance of the discipline and its role in understanding human language and cognitive processes.

The analysis of publication activity in the field of cognitive linguistics in Kazakhstan shows fluctuations in the number of articles over the years. In 2013, a single publication was registered, after which there was a gradual increase to three articles in 2015 and 2023, with periodic fluctuations in the intervening years. Between 2017 and 2022, publication activity was low, with zero figures in 2017 and 2022, and only two articles in 2020 and 2021.

An analysis of the number of publications by country from 1976 to 2023 reveals the geographical leadership of the United States (1,349 publications), which reflects the high concentration of research resources and activity in the field of cognitive linguistics

in this country. The United Kingdom (481), Germany (303), China (275), and Spain (261) also demonstrate a strong scientific presence, confirming the international and multicultural nature of research in this field. The diversity and breadth of geographical coverage underline the global interest in the study of cognitive processes and language, revealing the contribution of various cultures and academic traditions (Fig. 2).
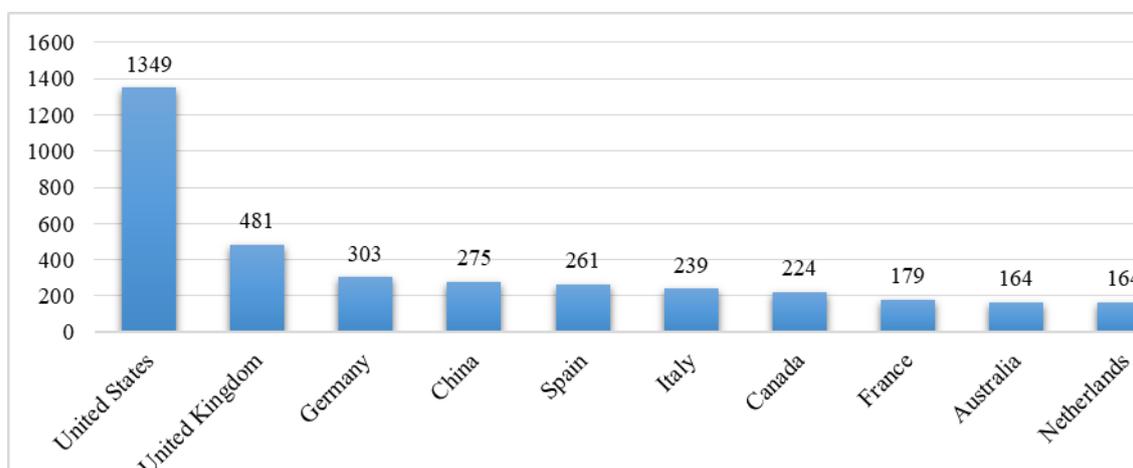

Fig. 2. Top 10 countries by the number of publications in the field of cognitive linguistics: analysis of Scopus data for 1976-2023 (Source: own calculations based on data from publications indexed by Scopus)

While the leading countries demonstrate stable research traditions, less represented nations such as Iran (44), South Africa (44), and Turkey (41) are discovering growing research potential. The availability of publications from developing countries, such as Kazakhstan (18) and Malaysia (18), confirms the expansion of academic boundaries and the increasing interest in cognitive linguistics in these regions, which can become a starting point for future cooperation and knowledge exchange in the global scientific community.

Analysis of Scopus data shows that social sciences (1,785 publications), arts and humanities (1,667), as well as computer science (1,604) are the leading branches of knowledge actively covering the topic of cognitive linguistics. Psychology (1,001) and neuroscience (884), although inferior in the number of publications, nevertheless significantly contribute, reflecting the interdisciplinary nature and integrated approach in the research of cognitive processes and language. This diversity demonstrates how the topic of cognitive linguistics permeates various academic disciplines and resonates with a wide range of research interests (Fig. 3).
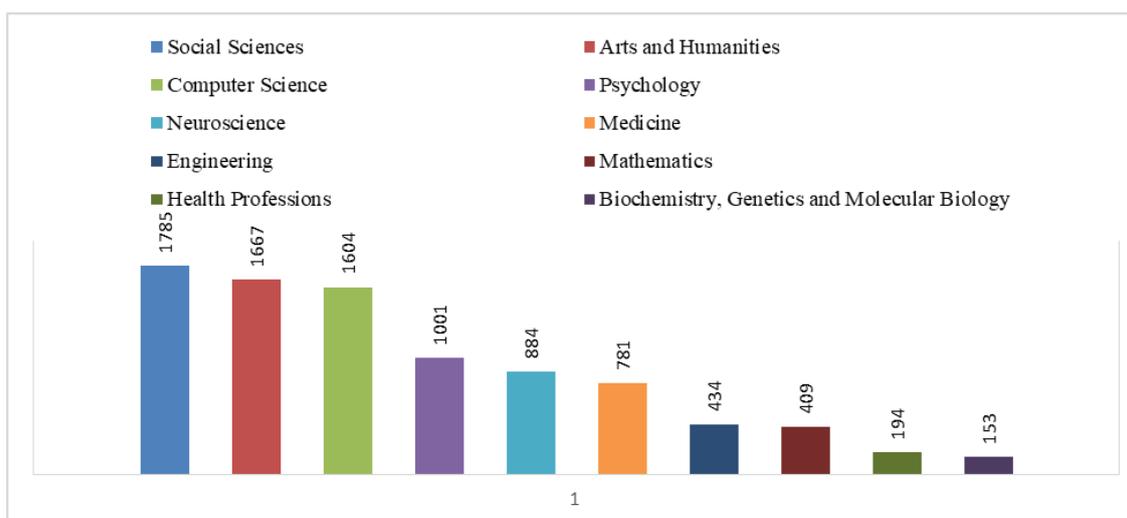
Fig. 3. Top 10 industries by the number of scientific publications on cognitive linguistics: analysis of Scopus data for 1976-2023 (Source: own calculations based on data from publications indexed by Scopus)

Psychology (1,001 publications) and neuroscience (884 publications) also show a significant amount of research, reflecting an interest in understanding the interaction between cognitive processes and language. Fields such as medicine (781) and engineering (434) emphasize the importance of cognitive approaches in these fields. A smaller number of publications in the fields related to the environment and the exact sciences indicate a specific but important role of language in these areas of research. This diversity shows the complex nature of cognitive linguistics and its contribution to various fields of academic and applied research.

Analysis of scientific publications in Kazakhstan reveals a notable focus on social sciences (13 publications) and arts and humanities (9 publications), highlighting their prominence in the study of cognitive linguistics within the country. Multidisciplinary research (3 publications) also plays a role, reflecting an integrated approach to cognitive processes and language. Although other fields such as biochemistry, genetics, and molecular biology, computer science, economics, econometrics, and finance, engineering, and environmental science each contribute a smaller number of publications (1 each), they nonetheless represent the broader scope of cognitive linguistics research in Kazakhstan. This distribution illustrates the diverse academic interests and interdisciplinary engagement in cognitive linguistics across various fields in Kazakhstan.

Academic activity in the field of cognitive linguistics, reflected in the publications of various research organizations, reveals a noticeable dynamic. Leading educational institutions such as the University of Edinburgh with 58 publications and the Center of the National Scientific Research Association of France (CNRS) with 52 publications emphasize their status as important research centers in this field. Universities from North America and Europe occupy a special place, which reflects the existing research traditions and scientific capabilities of these regions (Fig. 4).
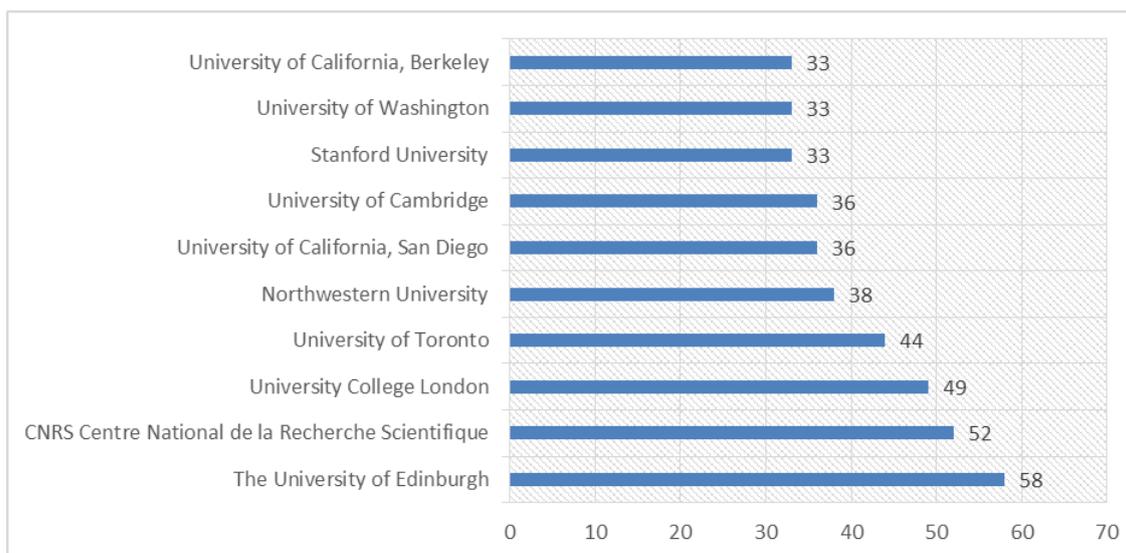
Fig. 4. Top 10 organizations by the number of scientific publications in the field of cognitive linguistics: analysis of Scopus data for 1976-2023 (Source: own calculations based on data from publications indexed by Scopus)

Complementing the picture, numerous universities, such as King's College in London (29 publications) and the University of Sydney (27 publications), indicate the spread of cognitive linguistic research beyond traditional academic centers. The contribution of organizations from all over the world, including developing countries and new scientific platforms, confirms the worldwide importance of cognitive linguistics and its contribution to interdisciplinary research, reinforcing international scientific cooperation and knowledge exchange.

The research on scientific activity in the field of cognitive linguistics, as reflected in the publications of various research organizations in Kazakhstan, demonstrates the diversity and dynamics in this field. Leading Kazakhstani universities, such as Abai Kazakh National Pedagogical University (6 publications) and L.N. Eurasian National University Gumilyov (5 publications), emphasize their status as significant research centers in this field. Universities and scientific institutes of Kazakhstan, such as Al-Farabi Kazakh National University and Auezov South Kazakhstan State University, with 4 and 2 publications respectively, confirm the existence of research traditions and scientific opportunities in the country.

The analysis of scientific publications covering the topic of cognitive linguistics makes it possible to assess their contribution to the dissemination of knowledge and the development of the discipline. Lecture Notes in Computer Science, including the subseries Artificial intelligence and Bioinformatics, with 151 publications, stands out as the largest source of research, which emphasizes the importance of interdisciplinary approaches in cognitive linguistics. The journals "Cognition" and "Trends in Cognitive Sciences" with 78 and 72 publications, respectively, reflect the central role of these publications in the study of cognitive processes related to language cognition and use (Fig. 5).
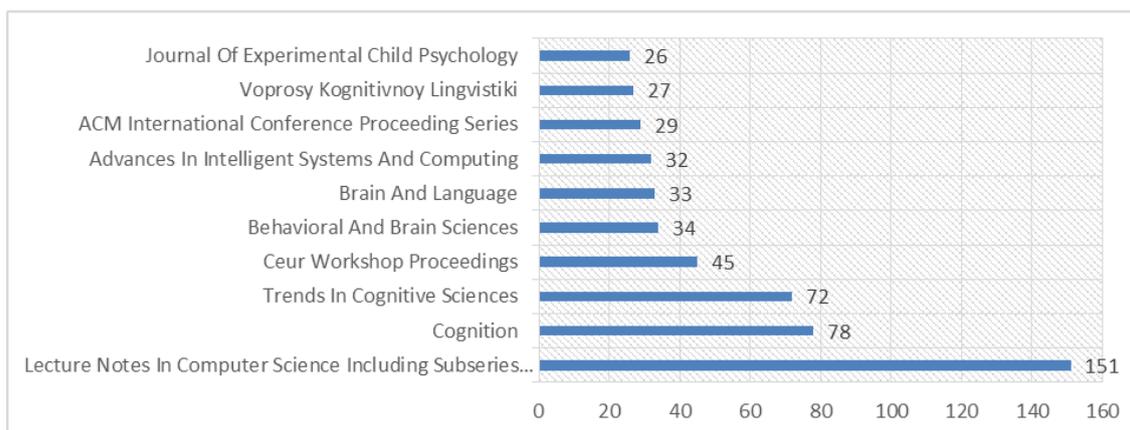
Fig. 5. Top 10 scientific publications by the number of publications in the field of cognitive linguistics: analysis of Scopus data for 1976-2023 (Source: own calculations based on data from publications indexed by Scopus)

Publications in journals such as Behavioral and Brain Sciences and Brain and Language emphasize the importance of psychological and neurobiological research in understanding language as a cognitive system. Even journals with relatively fewer publications, including "Advances in intelligent Systems and Computing" and the "ACM international Conference Proceeding Series", make important contributions to the development of computer methods of language analysis, reflecting the interaction of cognitive linguistics with modern technologies. This variety of publications illustrates a wide range of research interests in cognitive linguistics and its application in various fields of knowledge.

The analysis of scientific publications on cognitive linguistics in Kazakhstan allows us to assess their contribution to the dissemination of knowledge and the development of the discipline. Journals such as Astra Salvensis, International Journal of Society, Culture, and Language, Middle East Journal of Scientific Research, and Opcion, each with 2 publications, stand out as significant sources of research in this field. These publications highlight the importance of interdisciplinary approaches and cultural aspects in cognitive linguistics. Journals with fewer publications, such as Asian Social Science, Humanities and Social Sciences Reviews, and the Indian Journal of Science and Technology, also make important contributions, reflecting the diversity of research interests and their applications in various fields of knowledge.

The keywords found in the titles of scientific publications on cognitive linguistics reveal the focus of researchers' interests in this field. The word "cognitive" is present in 1334 titles, which emphasizes the main direction in the field of psycholinguistics and cognitive science. The terms "language" and "linguistic" with a frequency of 796 and 435 mentions, respectively, reflect the importance of studying language processes and structures through the prism of cognitive science (Table 1).

Table 1. Top 20 keywords found in the titles of scientific publications on cognitive linguistics: analysis of Scopus data for 1976-2023 (Source: own calculations based on data from the database of articles indexed by Scopus)

Keywords	Number of Keywords	Keywords	Number of Keywords
cognitive	1334	children	180
linguistic	796	model	179
language	435	speech	173
study	277	semantic	158
analysis	263	based	145
linguistics	258	english	142
learning	231	impairment	135
approach	207	models	134
using	189	development	132
processing	183	metaphor	121

Table 2. Top 5 keywords in titles of kazakh scholars' publications on cognitive linguistics: analysis of scopus data for 1976-2023 (Source: own calculations based on data from the database of articles indexed by Scopus)

Keywords	Number of Keywords
cognitive	7
concept	6
kazakh	5
linguistics, language, national	3
studying, people, structure, linguoculturological	2

Fig. 6. Keywords and thematic areas in the linguistic landscape identified in scientific articles based on the analysis of publications in Scopus

Additionally, the words "study" and "analysis," with a frequency of 277 and 263 times, respectively, indicate active methodological approaches in research, as well as the desire of scientists for in-depth analysis and interpretation of linguistic data. Further keywords such as "linguistics," "learning," and "processing," with scores of 258, 231, and 183, respectively, show a multidisciplinary approach to the study of language functions and their impact on learning and cognition. These data not only reveal current trends in cognitive linguistics but also open up prospects for future research, identifying key thematic areas in this dynamically developing discipline.

An analysis of the citation trends of key scientific papers reveals the most influential research in the field of cognitive psychology and related disciplines. The work of Barsalou, L.W. "Grounded cognition" in the field of Cognitive Psychology, published in 2008, occupies a leading position with 4,318 citations, which emphasizes its fundamental importance in understanding the foundations of cognitive processes. Patel, A.D., with his book "Music, Language, and the Brain" in the field of Music Cognition, has 1,153 citations. He explores the relationship between musical and linguistic perception, which reflects an interdisciplinary approach to cognitive sciences (Table 2).

Table 2. Top 10 most cited papers in the field of cognitive linguistics: analysis of Scopus data for 1976-2023 (Source: own calculations based on data from the database of articles indexed by Scopus; Export Date: April 10, 2024)

Authors	The title of the work	Classification	Year	Citations
Barsalou, L.W.	Grounded cognition	Cognitive Psychology	2008	4318
Patel, A.D.	Music, Language, and the Brain	Music Cognition	2012	1153
Evans, N., Levinson, S.C.	The myth of language universals: Language diversity and its importance for cognitive science	Linguistic Anthropology/ Cognitive Science	2009	1112
Barsalou, L.W., Simmons, W.K., Barbey, A.K., Wilson, C.D.	Grounding conceptual knowledge in modality-specific systems	Cognitive Neuroscience	2003	890
Abutalebi, J., Green, D.	Bilingual language production: The neurocognition of language representation and control	Neurolinguistics	2007	860
Brüne, M.	Theory of mind in schizophrenia: A review of the literature	Clinical Psychology/ Psychiatry	2005	825
Weisleder, A., Fernald, A.	Talking to Children Matters: Early Language Experience Strengthens Processing and Builds Vocabulary	Developmental Psychology	2013	809

Kirkham, N.Z., Slemmer, J.A., Johnson, S.P.	Visual statistical learning in infancy: Evidence for a domain general learning mechanism	Cognitive Development	2002	740
Hale, J.	A probabilistic earley parser as a psycholinguistic model	Computational Linguistics/ Psycholinguistics	2001	723
Gordon, P.	Numerical cognition without words: Evidence from Amazonia	Numerical Cognition/ Mathematical Psychology	2004	681

Articles such as "The myth of language universals: Language diversity and its importance for cognitive science" by Evans, N., Levinson, S.C. In Linguistic Anthropology/Cognitive Science with 1112 citations and "Grounding conceptual knowledge in modality-specific systems" by Barsalou, L.W., Simmons, W.K., Barbey, A.K., Wilson, C.D. In the field of Cognitive Neuroscience with 890 citations, continue the list of studies that have had a significant impact on the development of cognitive sciences. These and other works are on the list, such as "Bilingual language production: The neurocognition of language representation and control" by Abutalebi, J., Green, D. In Neurolinguistics, confirming that research in this field finds wide resonance among the scientific community, contributing to the understanding of the complex mechanisms of the human mind and language.

Patel, A.D.'s book "Music, Language, and the Brain" explores the connection between music and language, providing unique methods for understanding the structural integration and processing of language and music. These methods can be applied to analyze the structures of language conflicts and musical perception. The work of Evans, N. and Levinson, S.C., titled "The Myth of Language Universals," sheds light on the importance of taking into account linguistic diversity, which is inextricably linked to the topic of language conflicts. They emphasize that understanding the diversity of languages is critically important for cognitive science and the analysis of language conflicts. Together, these works form a comprehensive understanding of cognitive linguistics, which is necessary for a deep understanding of language conflicts and their impact on individual and social processes.

The study confirms the importance of an interdisciplinary approach in the analysis of cognitive processes and language. This approach allows us to understand in depth the mechanisms and consequences of language conflicts. The methods used in the reviewed papers reveal new aspects of the influence of cognitive factors on language dynamics and interaction. Additionally, the extensive number of citations indicates the significant contribution of these studies to the academic community. Thus, the presented analysis is fundamental for identifying key topics and directions in the development of the discipline, emphasizing the close relationship between cognitive research and language practices in multilingual and multicultural contexts.

In the course of our research, we sought to study and analyze the dynamics of publication activity in the field of cognitive linguistics. We based our analysis on data from the Scopus database from 1976 to 2023. The aim was to identify the key trends and interdisciplinary connections that shape this field of knowledge, with particular emphasis on methodological approaches and the geographical distribution of scientific

papers. The growth of publication activity in the field of cognitive linguistics reflects the development and diversification of theoretical approaches and research models in this discipline. Hartmann's (2021) work on diachronic cognitive linguistics offers a unique perspective on language development through the lens of its interaction with cognitive processes and cultural evolution. This approach allows not only a deeper understanding of the mechanisms of language development, but also to identify the links between language and cultural changes in the historical context. In addition to this, Baicchi's (2015) research makes a significant contribution to the field by presenting a Cognitive Cost-Benefit Model that integrates illocutionary activity within the constructionist field of cognitive linguistics. This model addresses the limitations of traditional approaches and offers a new perspective on the relationship between language use and cognitive mechanisms, emphasizing the dynamism and adaptability of language activity in the context of social interaction.

Further research in this area, such as the work of Diessel (2017) on Usage-Based Linguistics, reveals the dynamic nature of language, considering it as a system formed under the influence of cognitive processes and social interaction. This approach highlights how the everyday use of language and its structural adaptation reflect cognitive mechanisms and cultural contexts. The study by Rączaszek-Leonardi (2010) delves into the analysis of time scales of language dynamics, from milliseconds of brain activity to centuries of cultural evolution of language, emphasizing the need for a multidisciplinary approach to fully understand the complexity of language processes. The combinatorial processes underlying the gradual understanding of language, as shown by the study by Lyu et al. (2019), demonstrate the ability of listeners to dynamically integrate the meanings of words in the process of perception, which opens up new prospects for studying the neurodynamics of semantic composition in cognitive linguistics. These studies emphasize the importance of integrating various theoretical and methodological approaches in cognitive linguistics, reflecting its interdisciplinary and dynamic nature. The development of new frameworks and models in cognitive linguistics not only contributes to a deeper understanding of the interrelationships between language, thinking, and culture but also provides tools for analyzing changes in language practice and socio-cultural dynamics. Thus, by synthesizing achievements in various fields of knowledge, cognitive linguistics opens up new avenues for research in linguistics and related disciplines, emphasizing the importance of interdisciplinary dialogue and collaboration in scientific research.

Our research in the field of cognitive linguistics and analysis of publication activity in Scopus from 1976 to 2023 revealed not only a quantitative increase in interest in this discipline but also a qualitative development of methodological approaches and theoretical frameworks. This development has significant implications for the academic community and the practical application of knowledge. Establishing relationships between language dynamics and cognitive processes expands the boundaries of understanding the mechanisms of language adaptation and evolution. It provides new tools for analyzing and predicting language changes in a socio-cultural context. This, in turn, contributes to the development of more effective teaching and translation techniques, taking into account the cognitive features of perception and processing of language information.

Additionally, the results of our study emphasize the importance of an interdisciplinary approach to language learning. This approach ensures the integration of knowledge from linguistics, cognitive psychology, neuroscience, and cultural studies. It opens the way for the formation of new research directions that can lead to the creation

of unified theoretical models describing complex linguistic and cognitive processes. This contributes to a deeper understanding of language dynamics, the mechanisms of language acquisition, and the interaction between language and thinking.

In this context, our findings highlight the need for further development of cognitive linguistics as a key area in modern language science. This pushes for the development of new research tools and techniques applicable in various fields, from education to artificial intelligence. The opportunities offered by a deep understanding of the cognitive foundations of language can significantly affect the development of natural language processing technologies. It can improve second language teaching methods and create more accurate machine translation models, making communication and access to information more efficient and natural.

Based on an analysis of article titles found in the Scopus database using the keywords "cognitive" and "linguistics," a study was conducted covering 4,985 articles. The Orange program was used to perform a stopword analysis to eliminate irrelevant terms, allowing for the categorization of materials by topic. Despite the extensive range of research, there are still gaps that could form the basis for further research questions, including:

1. How does the interaction between cognitive processes and social media impact the development of linguistic skills and psychological well-being among users of different age groups?

2. To what extent can artificial intelligence and large language models reproduce and comprehend metaphorical and idiomatic expressions in different cultures, and how does this impact intercultural understanding?

3. What are the characteristics of cognitive processing of polysemic words and phrases in diverse languages, and how does this relate to cultural and contextual factors?

4. How does the advancement of natural language processing and machine learning technologies affect the comprehension and modeling of human language and cognitive processes?

5. How can cognitive linguistics contribute to the creation of more effective language teaching methods, particularly for individuals with cognitive disabilities or those learning a second language?

6. To what extent does multilingualism influence cognitive functions and the development of linguistic competence in additional languages?

7. What are the implications of using artificial intelligence and robotics in the field of cognitive linguistics to study the connection between language and thinking?

8. How do differences in language structures and lexical resources impact cognitive processes such as perception, memory, and problem-solving?

9. What are the mechanisms of interaction between linguistic and non-verbal communication systems in human communication?

10. How can an interdisciplinary approach in cognitive linguistics, combining psychology, neuroscience, and information technology, contribute to understanding complex linguistic and cognitive phenomena?

11. What are the methods and approaches for analyzing and interpreting big data in language research to identify new patterns in language usage and cognitive processes?

12. To what extent can understanding the cognitive aspects of language contribute to the development of new technologies to support individuals with communication and language disabilities?

The Kazakh scientific environment is actively developing cognitive linguistics, which is confirmed by a number of studies aimed at studying the interaction of language and culture, as well as the analysis of cognitive mechanisms that form national worldviews. For example, works devoted to the linguistic and cognitive aspects of the Kazakh language emphasize unique cultural and linguistic features that can enrich the global understanding of cognitive processes.

Prospects for further research in this area may include:

- The study of the specifics of cognitive processes in the context of the Kazakh language and culture, which will reveal unique aspects that affect the perception and use of language.

- Analysis of the influence of traditional Kazakh concepts on cognitive processes and their reflection in language, which can contribute to a deeper understanding of cultural identity.

- The study of the role of the Kazakh language in the formation of cognitive skills among young people, especially in the context of globalization and the influence of modern technologies.

- Development of teaching methods based on cognitive linguistics to improve language learning in Kazakh educational institutions, taking into account cultural and linguistic characteristics.

Thus, further study of cognitive processes in Kazakh science will not only enrich existing theories but also create new opportunities for the practical application of cognitive linguistics in education and intercultural communication. It is important to continue to explore these issues to better understand the complex interrelationships between language, thinking, and culture, as well as to develop effective solutions to support people with language and communication disabilities.

The study of the presented research questions highlights the inexhaustible potential of cognitive linguistics in developing an understanding of language and mind as well as in creating innovative approaches to learning and communication. The importance of interdisciplinary collaboration is obvious, as it opens up new horizons for studying the interaction between linguistic structures, culture, and cognitive processes. The introduction of modern technologies and artificial intelligence into cognitive linguistics research promises not only a deep understanding of the mechanisms of language and thinking but also the development of solutions to real social and educational problems, including support for people with communication disorders. These questions lead us to a deeper understanding of the complexity of human language and cognitive processes, emphasizing the need for continued research in this area.

Conclusion

At the final stage of our research, we look back to comprehend the wide range of studied aspects of cognitive linguistics and its relationship with other disciplines. In the course of our work, we discovered a deep connection between language, culture, and cognitive processes, emphasizing the diversity of human perception and thinking. The importance of the transdisciplinary approach in our research cannot be overestimated, as it has allowed us to integrate knowledge from various fields to create a more complete and comprehensive understanding of the phenomena studied.

We have also identified significant potential for the use of artificial intelligence and machine learning technologies in the analysis of language data, which opens up new

prospects for future research. These technologies not only contribute to a deeper analysis of language structures and cognitive processes but also provide tools for the development of innovative educational solutions and methods for the treatment of communication disorders.

Special attention in our work was paid to intercultural linguistics and the study of how differences in language and culture affect cognitive processes. This direction reveals the need for further study of culturally specific linguistic structures and their impact on thinking and perception.

In conclusion, our research confirms the importance of cognitive linguistics as a powerful tool for understanding the complex interactions between language, thinking, and culture. We are confident that the results of our work will serve as a solid basis for future research in this area, contributing to the expansion of knowledge boundaries and the development of new approaches to the study of human language and cognitive processes.

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КОГНИТИВТІ ЛИНГВИСТИКА:
SCOPUS-ТАҒЫ ҒЫЛЫМИ ЖАРИЯЛАНЫМДАРДЫ ТАЛДАУ

Аңдатпа. Мақалада тіл білімінің жаңа бағыттарының бірі – когнитивті лингвистика саласына қатысты ғылыми еңбектерге талдау жасалған. 1976 жылдан 2023 жылға дейін Scopus дереккорындағы жарияланымдар санының артуы ұсынылған тақырыптың өзектілігін растайды. Зерттеудің мақсаты 4985 ғылыми мақаланы жүйелі шолу негізінде когнитивті лингвистика саласындағы үрдістер мен бағыттарды талдау болып табылады. Зерттеу әдістемесі басылымдардың өсу динамикасын, сондай-ақ географиялық және салалық үлестіруді анықтау үшін SPSS көмегімен деректерді жинау мен талдауды қамтиды. Теориялық маңыздылығы тілдің когнитивті аспектілері туралы білімді кеңейту және осы саланың көпсалалы

сипатын қалыптастыру болып табылады. Практикалық маңыздылығы инклюзивті тілдік тәжірибелерді дамытуға және лингвистикадағы когнитивтік мәселелер туралы тереңірек білім қалыптастыруға қосқан үлесі арқылы көрінеді. Зерттеудің нәтижелері жалпы тіл білімі, когнитивті лингвистика, прагмалингвистика, коммуникативті грамматика, функционалды стилистика және т.б. салалардың дамуына үлес қосады. Зерттеу қорытындылары осы саладағы жарияланым белсенділігінің айтарлықтай артқандығын дәлелдеп, лингвистикадағы когнитивтік зерттеулерге жаһандық және көпсалалы қызығушылықты айқын көрсетті.

Түйінді сөздер: когнитивтілік, лингвистика, тілдік әртүрлілік, лингвистикалық сараптау, көпсалалылық, семантикалық талдау, Scopus.

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КОГНИТИВНАЯ ЛИНГВИСТИКА:
АНАЛИЗ НАУЧНЫХ ПУБЛИКАЦИЙ В SCOPUS

Аннотация. В статье проведен анализ научных работ, касающихся одной из новых областей лингвистики – области когнитивной лингвистики. Увеличение количества публикаций в базе данных Scopus с 1976 по 2023 год подтверждает актуальность предложенной темы. Целью исследования является анализ тенденций и направлений в области когнитивной лингвистики на основе систематического обзора 4985 научных статей. Методология исследования включает сбор и анализ данных с использованием SPSS для определения динамики роста публикаций, а также географического и отраслевого распределения. Теоретическая значимость заключается в расширении знаний о когнитивных аспектах языка и формировании многопрофильного характера этой области. Практическая значимость проявляется в его вкладе в развитие инклюзивных языковых практик и формирование более глубоких знаний о когнитивных проблемах в лингвистике. Результаты исследования способствуют развитию общего языкознания, когнитивной лингвистики, прагматической лингвистики, коммуникативной грамматики и функциональной стилистики и т.д. Результаты исследования доказали значительное увеличение публикационной активности в этой области и ясно продемонстрировали глобальный и междисциплинарный интерес к когнитивным исследованиям в лингвистике.

Ключевые слова: когнитивность, лингвистика, языковое разнообразие, лингвистическая аналитика, мультидисциплинарность, семантический анализ, Scopus.