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PRESERVATION OF THE ROLE OF THE GERMAN LANGUAGE AS A MEANS OF SCIENTIFIC COMMUNICATION WITHIN THE FRAMEWORK OF THE CONCEPT OF MULTILINGUALISM

Abstract: The article examines the issue of the changing role of the German language as a means of international scientific communication, examines the reasons for the weakening of its influence against the background of the strengthening of the role of the English language. The author provides a historical overview of the development of German-language scientific communication and its impact on the formation of scientific and technical thought in the world. The article substantiates the need to preserve national languages in scientific communication against the background of the use of English as a universal simplified instrument of international communication.

Key words: multilingual concept; scientific communication; German as the language of science; preservation of national languages in scientific communication; globalization of science.

Language: English

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Introduction

Nowadays, in the age of information technology, the role of communication in the scientific community has dramatically increased. In order to increase the efficiency of scientific research, scientific schools of different countries strive to exchange views on a variety of scientific issues. To facilitate such an exchange, numerous international conferences, symposia are held, academic exchange of students, graduate students and professors is organized, and international scientific bases of publications are being created. In the context of the globalization of science, the need naturally arises to simplify the process of scientific communication and to search for a universal means for its implementation. At different times, scientists asked themselves the question of finding a universal language of science: in the Middle Ages, Latin was given its role, later attempts were made to create artificial languages, for example, Esperanto. At present, the problem of the universal language of science, it would seem, is being successfully solved due to the widespread use of the English language in scientific communication. However, this process is

ambiguous and cannot be viewed only in a positive way.

In the course of globalization, English is gradually replacing national European languages from the process of scientific communication. This trend can be easily explained by the monopolarity of the modern world and the strengthening of the leading political role of the United States after World War II, thanks to which American science in the 20th century received a powerful impetus for development. The emergence of the Internet has also greatly accelerated the process of globalization, the result of which is the decrease in the role of national languages in the field of scientific communication.

Historically, the role of language in international scientific communication was determined by the level of development of science in the native country of the given language. Germany has been a flagship in many branches of science for centuries. Therefore, the huge historical role of the German language in the development of world science is not accidental. German scientists were among the first in the world to abandon the use of Latin as a universal language of



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science in favor of a national language. The high level of development of science and the desire to systematize scientific and practical experience as a national German trait brought the German language to a leading position in international scientific communication. Beginning in the second third of the 15th century, when book printing appeared in Germany, the German language established itself as the language of fundamental science.

With the appearance of major scientific works in German, the strengthening of the position of the German language as the language of individual branches of science is also associated. The appearance of G. Agricola's work "Bermannus, sive de re metallica dialogus" ("Gespräch vom Bergwesen") in 1530 [7] and other fundamental works on mining that followed, such as L. Erkler's book "Beschreibung allerfuernemisten mineralischen Ertz und "(1547) Bergwerksarten and G. Junghans's dictionary" Ausgeklaubte Gräublein Ertz", predetermined the great importance of the German language in the mining industry. The existence of a large number of published works of German geologists, mining engineers and metallurgists who systematized knowledge in the field of mining, as well as the emergence of scientific schools in this area, for example, the founding of the Freiberg Mining Academy in 1765, also explain the fact that borrowings from the German mining dictionary became the basis for the formation of national terminology in the mining industry.

During industrialization at the end of the 19th century, many branches of science in Germany were on the rise. Realizing the importance of the development of science in strengthening the state, the country's leadership in every possible way contributed to the latest scientific achievements. At the end of the 19th century, various national and international institutions were established in Germany to exchange scientific experience and knowledge. Universities, professional associations, research institutes and scientific publications, as well as various conferences and congresses played a huge role in this. By the beginning of the 20th century, German was considered the most preferred language for scientific publications. Students and scientists all over the world studied German in order to be able to read special literature, publish in German and conduct scientific research in Germany [9, 50]. Major discoveries of German scientists contributed to the assertion of the role of the German language as the language of science. It was at this time that such important inventions of German scientists as the internal combustion engine of N. Otto (1877), the first car of G. Daimler and K. Benz (1885), the engine of R. Diesel (1897) and the discovery electromagnetic waves G. Hertz (1888). The highest level of development of science and technology in Germany at that time is evidenced by 14 Nobel Prizes awarded to

German scientists only in the period from 1901 to 1914 [6, 213]. Only in the field of physics during this period, the Nobel Prize was awarded to five scientists [8, 283]. The state policy of Germany in the field of language and culture at the beginning of the 20th century carried out special measures to popularize the German language as the language of science in the world. To this end, in 1905, lectures by guest professors were organized in conjunction with US universities, within the framework of which the guest professors delivered lectures in their native language. An example of such cooperation is the lectures of Nobel laureate Max Planck at Columbia University in the USA in 1918.

The highest level of development of science and technology in Germany at that time is evidenced by 14 Nobel Prizes awarded to German scientists only in the period from 1901 to 1914 [6, 213]. Only in the field of physics during this period, the Nobel Prize was awarded to five scientists [8, 283]. The state policy of Germany in the field of language and culture at the beginning of the 20th century carried out special measures to popularize the German language as the language of science in the world. To this end, in 1905, lectures by guest professors were organized in conjunction with US universities, within the framework of which the guest professors delivered lectures in their native language. An example of such cooperation is the lectures of Nobel laureate Max Planck at Columbia University in the USA in 1918. In support of German science, scientific scholarship funds and organizations were created, such as the Foundation. Alexander von Humboldt in 1925, the German Academic Service at the merger of universities in 1927. In 1931, these organizations merged into the German Academic Exchange Service (DAAD) [9, 61]. Perhaps they would have been able to regain the leadership of the German language in scientific communication, but the political events of the first half of the 20th century left no chance for this. After World War II, the scientific world became almost completely Anglocentric, Germany could no longer compete with the United States. In addition, a huge number of German scientists during World War II could not come to terms with the political delusions in the networks of which Germany found itself, and were forced to emigrate to the United States. Expressing their protest against the events taking place in Germany, they also subsequently published the results of their research in English. In addition, the decrease in the number of scientific publications in German was due to economic reasons. Thus, W. Ammon in his articles expresses the idea that scientific results are directly proportional to economic ones: the state of the country's economy determines the costs of science and, therefore, directly affects the number of scientific achievements [8, 299]. Naturally, in post-war Germany there were much fewer opportunities for funding science than in the United



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States. Since then, the leading position of the English language in the field of scientific communication has remained unshakable.

The emergence of the Internet and international citation bases further strengthened the role of the English language. Recently, scientific dialogue has been conducted almost entirely in English. Many researchers speak with skepticism about the possibilities of national languages and state the fact that in many areas of scientific thought, such as natural and engineering sciences, social and economic sciences, the German language has surrendered its positions without a struggle and is on the way to extinction not only from the international, but also from the German arena [5, 3]. Driven by the desire to simplify international interaction and attract more young scientists to German universities, the German Academic Exchange Service (DAAD) has empowered Anglophone scholars by establishing a large number of study programs in English at German universities. This trend also reflects a general skepticism towards the German language of science and doubts about the advisability of measures to support it. Director of the Institute of the German Language in Mannheim L. Eichinger rightly notes that in the course of the globalization of science, the native language no longer even plays an auxiliary role, but is considered as an obstacle in promoting the results of scientific research on the international market, which contradicts the multicultural European tradition [3, 5].

This exclusion of national languages from scientific communication is currently causing serious concern among linguists. The European Federation of National Language Institutions (EFNIL) sees this trend as a real threat to the linguistic and cultural diversity of Europe. EFNIL recognizes the supportive function of English in facilitating communication between non-common language debaters, but cautions against using simplified English as the only vehicle for scientific, publishing and educational activities, as scientific traditions, concepts and research methods, entrenched in national languages. Also, in this way, the creative activity of scientists for whom English is not their mother tongue is discriminated against. Within the framework of the Florentine resolution on the use of languages in research activities, recommendations were developed to strengthen the position of national languages in scientific discourse. EFNIL recommends that researchers make a choice not between the national language and the English language, but choose a reasonable balance between both possibilities, choosing the language that is more relevant to the research context [4].

The preservation of the German language as one of the most important languages of international scientific communication is also supported by the specialists of the Institute. Goethe, motivating his opinion by the fact that the Germans have a developed communicative tool that provides a wide range of applications. The discourse of science and society in Germany is carried out in German. On the labor market in Germany, the German language is also an important advantage, ensuring the best understanding of each other among specialists [2].

Today, based on the level of development of science in Germany, the German language could confidently take the second place in European scientific communication after English. As measures to preserve the role of the German language as the most important means of scientific communication, German universities and research institutes should create conditions for the study of the national language for foreign students, graduate students and scientists working in Germany on exchange. The leading role in this issue can be assigned to international programs of academic mobility. It is also important to consider the huge number of scientific works of the past years published in German. Foreign students studying at German universities on Englishlanguage educational programs, nevertheless, cannot do without knowledge of the German language when working with German-language sources.

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