

Languages of Scientific Communication in the Russian Federation

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The range of questions discussed in this volume is reflected in Russian science in a peculiar way. That is why the answers to the questions that were posed will partly coincide with those given by the representatives of some other countries and will partly differ.

The English language in Russia is not a means of social communication; it is a foreign language used as a means of international communication. Some peculiarities of using English in Russia as a kind of scientific lingua franca are caused to a large extent by some inner processes in Russian science. It is possible to speak about crisis in our science and the reasons of it are as follows: the inadequate financing, the deterioration of the material and technical basis of investigations, low salaries of research workers and, consequently, the fall of prestige of research work in Russia, the loss of connections between science and production, the drain of ideas and technological methods, brain drain, the change of the sphere of activities by research workers and the ageing of those who continue research work. The result of all these factors is less prestige of Russian science and a lower self-appraisal of our research workers, etc. Some positive changes (*e.g.*, the growing number of those who defend their doctoral and Ph.D. theses and at a younger age) cannot make up for the above-mentioned negative aspects. Only 3% of Russian research workers do not notice the crisis and only 20% hope that the situation will improve; 33% foresee change for the worse, and 47% think there will be no drastic changes (Jurevich, 2004, p. 39). All these factors are to be born in mind when we speak about the use of English in Russian science and humanities.

Writing this chapter I asked the scientific secretaries of different research institutes of the Russian Academy of Sciences to answer some questions. Those questions were of most general character because of the lack of time. That is why they are methodologically not absolutely correct. Nevertheless, the answers that I received undoubtedly reflect the main tendencies in different spheres of Russian science. First of all, I was interested in which

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languages have been the working languages in recent years at international conferences, meetings, round tables, etc. Two other questions interested me: what were the exact figures concerning the languages in which the speeches were made, and what were the languages mainly used for informal communication of research workers in the course of the conferences?

The results of the poll were quite diverse: in one and the same field of knowledge international conferences are held at which the working language is sometimes only English, more rarely (mainly in the sphere of the humanities) only Russian, and more often both languages are used. It would be a mistake to use these data as some kind of average, because they reflect a number of different phenomena. Talking to research workers helps to comprehend what these figures really mean. Thus, for example, it is possible to say that the extent to which English is used at international conferences in Russia is directly proportional to a greater or less 'international importance' of the event: if there are only few foreign colleagues at a conference or if there are mainly colleagues from the CIS (The Commonwealth of Independent States), Russian and English are used simultaneously, and in some rare cases German is used. The more the organizers of the conference are interested in international contacts, the more English is used; and vice versa: the less interest in those contacts, the less English is used.

The reason mentioned above determines the extent to which English has spread in science as opposed to the humanities. In the humanities many results are only of interest in so to speak 'national context'; they are vital for the existence and development of those spheres of national economy and culture that are not to be exported. That is clearly visible if we look at Russian journals: the majority of journals on sciences are translated into English and some of them even do not have their Russian version (Laser Physics, Pattern Recognition and Image Analysis, Russian Journal of Mathematical Physics) whereas Russian journals on the humanities mainly give only the English summary.

For the same reason the interest in English in Russian engineering and applied sciences is relatively low. With some exaggeration we can say that the extent to which English is used as lingua franca for the dissemination of scientific results reflects some peculiarities of political and economic life of the Russian Federation: the lack of transparency and openness or even of an autonomous character of some spheres of Russian economy in the context of the world. That is why Russian language occupies the dominating position in those fields of knowledge in which international cooperation is not very important.

The extent to which English is used at such conferences is directly proportional to the interest in the discussed problems in world science. It should be noted that theses and reports are usually published in the language in which reports were made. This means that reports in Russian are only addressed at the participants of the conference and that they are not interested to attract foreign readers.

The questionnaire showed that English is much more widely used in Moscow, St. Petersburg, Novosibirsk and some other cities, while it is rather rarely used in many other scientific centres. This shows, on the one hand, a lower level of conferences in the provinces and, on the other hand, a lesser use of English there. The use of English depends also on the age of research workers: young people use it more actively. It is the result of the stimulus to study English that has increased in Russia as everywhere in the world. English is the leading foreign language in Russian secondary school and the sphere of higher education. It is obligatory for such professions as management, service, computer technology and some others. Knowing English is a must if one wants to get a 'prestigious' job. Nevertheless, in everyday life Russian research workers exclusively use their native language in research work, discussions of professional subjects, private professional talks and so on. It is interesting to note that even after having spent many years abroad Russian physicists and mathematicians continue to speak Russian in their private professional talks.

In this context I would like to make some general observations concerning the problems discussed in this section. Is it possible to object to the dominance of English as the international language of science at all? It is the objective result of the historical development in the last and the present centuries. The necessity of a scientific lingua franca is determined by the requirements of science itself. And after all, it is not important which language performs this function today. What is really important is to meet these requirements. So the question whether this tendency is desirable for the development of different branches of knowledge is a rhetorical one, and the answer may be only positive.

Does this tendency indicate the weakening positions of national languages in the world on the whole and in scientific communication in particular? Does it mean an underestimation of the role of languages as German, French, Spanish, Russian, etc., which could well be the languages of international communication? Is there any threat for them in this tendency? Such a statement of the question for the above-mentioned languages was topical in the past, when either language, being used as a scientific lingua franca,

hampered the development of national literary languages. But this process came to an end long ago for European languages. Nowadays these are the languages with a developed system of functional varieties, including a developed subsystem of scientific language. This means that these languages not only possess a scientific terminology, but also word-forming models for derivative words, stylistic and syntactic parameters, special idiomatic expressions and even professional jargons which are an important part of scientific communication showing vitality of the language. Therefore the spreading of English in science will, in my opinion, not cause any damage to developed literary languages. The appearance in other languages of English terms describing new scientific objects does not determine their development in the least.¹ Thus, the spreading of English in Russian science does not influence the quality of Russian literary (standard) language and its position in society.

The situation is different in the case of those languages that have a poorly developed system of functional varieties, unstable standards of linguistic norms, etc. This is topical for the Russian Federation which is a polyethnic, multinational state. According to the statistic data of the 1989 census and the selective 1994 census, 180 languages are spoken on its territory. About 100 of them are the languages of the indigenous peoples of Russia, and the rest of them are the languages of those ethnoses that live there in a compact or dispersed way.

The Russian language is the national language on the entire territory of the Russian Federation. In many autonomous republics of which there are 21: Tatarstan, Chuvashia, Mordovia, Udmurtia, Kalmykia, Tuva, Dagestan, Komi, Yakutia and others), the languages of the indigenous population, are legal national languages. Apart from that Russian is the language in which different peoples of our country communicate. This is enhanced by the fact that in some republics of the Russian Federation the original population do not form the majority of population. Russians permanently live there and others belonging to different peoples of the Russian Federation or the former republics of the USSR. Thus, Bashkirs form only 21.9% of the population in Bashkortostan, whereas Russians make up 39.3% and Tatars 28.4% (Solntzev, 1992, p. 90). In some other autonomous republics in which the

¹ Ulrich Ammon points out that English words are more and more often used in German in the unchanged form and that some earlier phonetically 'Germanized' Anglicism's are 're-Anglicized' (Ammon, 1994, p. 2-3). I think that he draws a wrong conclusion from this interesting observation: he interprets it as the tendency towards the assimilation of languages. It seems to me that this phenomenon shows just the reverse – the wish to keep the distance between the languages: using an English word with its authentic pronunciation a native of German tries to preserve its status of an 'exotic' word.

original population forms the majority, Russians make up about one third of the population or more (Domashnev, 2003, p. 101). Therefore, the functioning of Russian in Russia and partly beyond the Russian borders as the language in which different peoples communicate is conditioned to a great extent by the following fact: due to the historical development of the republics that are the parts of the Russian Federation or that have mutual borders with it, a considerable (and in some cases prevailing) part of the population is Russian. That is why the conditions in which Russian functions in the Russian Federation drastically differ from the situation in any other European country.

It is clear that the main scientific language in a country is the one in which sciences are taught, *i.e.* the language of higher education which, in its turn, is connected with secondary education and partially depends on the level of development of the national language. The distribution of functions of national languages in the system of secondary (school) education in the Russian Federation are as follows: in nursery schools the national language is used as the main and compulsory one; in schools it is used as a means of teaching or is studied as a compulsory subject; in mixed schools there are classes in which Russian is the language of teaching and those in which national languages are used for the same purpose; in both cases Russian and this or that national language are compulsory subjects.

Russian is the predominant language in schools in the Russian Federation. It suffices to say that, according to the selective census of the population of the Russian Federation in 1994, when the question about the language that respondents mainly used in schools and kindergartens was asked, exclusively Russian was named by Chukchi, Mansi, Selkups, Nivkhi, Orochi, Turks-Meskhetins, Kurds, Karelians, Tsakhurs, Dungans, Ents, Kets, etc. At the same time the Yakut language is used in higher and secondary school and in kindergartens by 752 people out of 1000 (others use Russian); 703 Tuvinians out of 1000 use their native language; so do 498 Altaians and 240 Komis out of 1000 in each case. The situation with the Tatar language is quite a peculiar one. This language in its different varieties is used in 40 regions and districts of the Russian Federation. As a means of teaching it is used in kindergartens, primary and secondary school only together with Russian. (It is impossible to get secondary education only in Tatar). Natural sciences are taught in Russian because appropriate terms have not yet been created in Tatar and, for this reason, Tatar textbooks do not exist. As a subject Tatar language is studied everywhere in secondary and higher school. In 12 Tatarstan universities and colleges Tatar language is studied as a subject. And only at the

philology faculties special courses are given in this language. In Tatarstan Turkish is used in the sphere of education next to Russian and Tatar. There are a few schools in Kazan in which Turkish is the language of teaching.

In the system of higher education Russian prevails over other languages of the Russian Federation. Their functioning is rather limited and fully depends on the degree of their structural and functional-stylistic development as well as on their social basis. They are mainly used in philological disciplines in which national languages are not only subjects, but also languages of teaching. That is the function of such languages as Avar, Adygei, Dargin, Kalmyk, Kabardian-Circassian, Karachai-Balkar, Kumyk, Lak, Lezghin, Mari, Mordvinian-Moksha and Erzya, Ossetic, Tabasaran, Tatar, Tuvinian, Yakut. All the other written languages of the Russian Federation are studied as subjects. Russian is used in the system of higher education as both a subject and a means of teaching in all the disciplines – the humanities, natural and engineering sciences. Thus, owing to geographic, historical, social and economic conditions, the use of Russian as a common language is compulsory for native speakers of the national languages of the Russian Federation. The domains in which one can apply knowledge and qualifications acquired in the national languages of the Russian Federation are not numerous. Education in Russian provides more opportunities to apply it. That is why we may expect Russian to continue functioning as the main language in secondary, specialized and higher education.

The carried out poll showed that scientific activities in the national republics of the Russian Federation, especially in the spheres of natural, mathematical and engineering disciplines, are carried out only in Russian (proclaiming English as one of the official languages of Yakutia is still no more than the fact of local lawmarking, and it does not show the real spreading of English in the republic). The state of affairs is much the same both in higher education and in science: with the exception of some humanitarian disciplines (national philology, history, ethnography, etc.), national languages of the republics are not used at all in the sphere of fundamental and applied sciences and in high-tech branches of production. That is conditioned by an insufficiently developed terminology in those languages (*e.g.*, in Altaian, Kabardian, Balkar, Khakass, Mari, Nenets, Tuvinian) and by impossibility to communicate with colleagues speaking other languages. Therefore scientific literature published in the national languages is limited to some textbooks, manuals and dictionaries. A slightly larger number of books in philology are published in the Republic of Sakha (Yakutia) where the academic edition of *Olonkho* (epic poems) in Yakut and

Russian was published with commentary in 1993–1995 and 46 works on the problems of Yakut linguistics appeared during the last decade. In Tatarstan the publication of books and brochures in Tatar has long-standing traditions. As to all the other languages of the autochthonous nations of the Russian Federation, the same is true only of Russian. Various kinds of scientific works are published in Tatarstan: works in literary criticism, art, pedagogy, reference books, books in philosophy, theology and other humanities. During the last decade 299 works in linguistics, ethnography and didactics appeared there, among them a *Dialectology Dictionary of the Tatar Language* (1997), a *Grammar of the Tatar Language* in 3 volumes (1998), and five textbooks for higher school (2000). On the average not more than 2.5% of all scientific works are published in the national languages of the Russian Federation, and they are mainly devoted to linguistic and ethnographic issues. Works in other branches of knowledge are published in Russian.

As Russian is known by all the peoples of the Russian Federation, there are not enough stimuli to develop national scientific terminology and to create the national languages of science. But this work, which was begun in Soviet times, is still being done. In those times the formation of national terminology was greatly influenced by Russian. Nowadays some other – cognate – languages (such as Finnish in Karelia and Udmurtia, Turkish in Tatarstan) serve as the models and sources. However, the languages in question cannot function successfully as national languages in accordance with the republican language legislation, because the language of science is not developed in this legislation and terminological nomenclature does not exist. It seems that the situation - which is typical of the republics of the Russian Federation and some other countries - when an international language functions as the scientific lingua franca (in the Russian Federation it is Russian) and other national languages are functionally complementary, this situation is not likely to change quickly.

Russian was the main language of science in the USSR. It was used in this way in all the republics, though language conditions in the Baltic and Caucasian republics differed from those in the Ukraine and Belarus, on the one hand, and from those in Kazakhstan, Uzbekistan and Kirgizia, on the other. It was written in the constitutions of the national republics that their languages were the national languages, and favourable conditions for their development were created. In each Soviet republic there were the national Academy of sciences, universities and colleges; theses were defended and journals and monographs, etc. were published in the national languages.

Nevertheless, Russian dominated in the USSR republics in scientific sphere and other spheres of communication. Among the reasons of this dominance we can mention an active state support and the fact that Russian was native language for the majority of the population. As it was the language of the united multinational state, being familiar with it most active people could move freely in the country. In its turn such migration made the republics more multinational and the role of Russian as a means of communication of different peoples became even greater.

After the former republics of the USSR had become independent, Russian partly retained its place in the communication of Russian scientists with their colleagues from those republics. But on the whole the process of de-Russification is going on in all the republics, and other languages (mainly English) are being used for international communication.

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