

EDITOR MATERIAL

Publication Culture of Russian Science: International Perspectives

Zuev K.B.^{a*}, Volkova E.V.^b

^a*Institute of Psychology, Russian Academy of Sciences, Moscow, Russian Federation
ORCID iD: 0000-0003-1237-8169*

^b*Institute of Psychology, Russian Academy of Sciences, Moscow, Russian Federation
ORCID iD: 0000-0003-3809-3639*

Abstract: The article deals with the culture of scientific publications in Russia on the example of psychology. The bibliometric base of the Russian Science Citation Index is considered from the point of view of compliance with the publication culture. It is shown that the currently existing three-level hierarchical structure of the RSCI provides a quantitative analysis of publications by a large number of metrics, some of which have no analogues in Web of Science and Scopus. Publications with the term "psychology" in their titles are analyzed. It is noted that not all psychological publications are labeled as areas of psychology. However, there is an opportunity to specify directions in the subjects and objects of research. It is noted that the features of the Russian publishing culture include a small number of co-authors of publications and a pronounced interest in socially significant objects of research, as well as in the history and methodology of psychology

Keywords: Russian Culture Publication Culture, Russian Science Citation Index, Bibliometric Analysis, Keywords, Psychology, Areas of Psychology.

1. Introduction

The start of a special military operation in Ukraine has intensified the discussion about the national features of Russian science. Two years ago, the editors conceived the interdisciplinary international journal *Natural Systems of Mind*, aimed at publishing both classic and debatable articles without regard to the status and other social merits of the authors. Our attitudes expressed in the first editorial remain in full force. We firmly believe that scientific thought knows no boundaries and should be spread as widely as possible. The duty of a scientist is to convey his/her scientific results to the widest possible audience. At this stage of science development, its

international language is English. Our journal is published and will be published in English. The second invariable setting is free publication and open access. All this cannot be destroyed by any sanctions, which are absurd when it comes to scientific communication. However, it would be wrong to pretend that nothing has changed in the current historical conditions. Over the past ten years (since 2013), the effectiveness of Russian science within the country has been assessed by publications indexed in international scientific databases. This sometimes led to amusing paradoxes (see Zuev, 2021). These requirements have now been cancelled. Russian science is on the verge of isolation. In this regard, the mission of

*Corresponding author: Zuev K.B. E-mail address: zuevkb@ipran.ru
DOI: 10.38098/nsom_2022_02_01_01

disseminating advanced scientific knowledge obtained in Russia for the English-speaking reader is added to the existing missions of the journal.

This does not mean that non-Russian authors will not be able to publish their manuscripts in the journal. On the contrary, we look forward more than ever to a scientific dialogue. Our urgent task is to bring Russian science as close as possible to the interested reader. For this purpose, it would be appropriate to briefly outline the publishing landscape of Russian science. Since the early 2000s, Russia has had its own bibliometric database hosted on elibrary.ru. Unfortunately, neither the base itself nor its capabilities are known to the foreign reader. Therefore, in this article, we will briefly inform about the Russian bibliometric database and compare the publication landscape in the Russian database and in Web of Science, which was presented in the first editorial of the journal (Volkova, Zuev, Rusalov, 2021).

2. Russian Science Citation Index: History and Modernity

It is known that the first scientific citation indexes were developed by J. Garfield in the 1960s and the modern Web of Science apparatus functions on their basis. In the USSR, the issue of systematizing scientific information was rather acute. The Institute of Scientific Information of the Academy of Sciences of the USSR was established in 1952, later it was renamed the All-Union Institute of Scientific and Technical Information (VNIITI). Despite the widespread opinion Soviet science has never been isolated from world science. VNIITI subscribed to thousands of scientific journals, which were translated on time by order of Soviet scientists.

Over time, library institutes were created in the system of the USSR Academy of Sciences, which also performed review functions: the Institute of Information on Social Sciences, the Library of Natural Sciences, etc. These institutions widely used automatic

information accounting systems in their activities. Nevertheless, the Soviet system for the dissemination of scientific information

was far from perfect. Books of the central publishing house of the USSR Academy of Sciences "Nauka" and journals were sent to specialized libraries, but a lot of scientific information (collections of articles, conference materials, etc.) remained "invisible". This led to the normalization of multiple publications (autoplagerism). In the modern scientific world, this is absolutely unacceptable, but in the late Soviet period it was widespread and justified. After a turbulent and uncertain time for Russian science and the country as a whole (the 1990s), a new publishing culture began to form, which required both a revision of the ethical standards of publications and the significance of their individual types.

At this stage in the development of science, the standard type of publication is a scientific article in a journal. Scientists compete to get into the journals with the highest impact factor (or similar), and so on.

As mentioned above, the Russian bibliometric database was created in 2005. From her predecessors, she inherited the SRNTI classifier, which is still used today. For a fairly long period (until 2016), the base was homogeneous. Publications were not divided in it by status and source of origin. Until 2013, the base was used by a small number of specialists, despite the significant opportunities that it already had at that time. Quantitative indicators for evaluating the effectiveness of Russian scientists, including the RSCI indices, were administratively introduced in 2013. The Russian science was not unique in this regard. Quantitative indicators have come to be used as criteria for assessing the effectiveness of science in Hispanic countries, China, and other regions. This state of affairs led to the publication of the Leiden Manifesto for Scientometrics in 2015 (Hicks et al., 2015). By that time, many scammers appeared in Russia who

offered to publish anything for money in the RSCI. The author could "wind up" the number of publications, citation and derived indicators (due to self-citation). An attempt to "calculate" Russian science led to chaos. Certainly, this did not apply to all Russian scientists. More and more researchers began to advocate the need to introduce clear ethical standards for publications and reform the RSCI. In Russia, a free online community "Dissernet" was launched, through the efforts of which hundreds of people were deprived of their academic degrees. Over time, they also presented a list of unreliable magazines. The Council on Ethics of Scientific Publications started its activity. Thanks to the activities of the Russian Council on Ethics, a procedure has been established for retracting articles from scientific journals. Thousands of papers were retracted for violating scientific ethics. The changes also affected the main bibliometric base of the country. Thanks to the Russian Council on Ethics, the procedure for retraction of articles from scientific journals has been established. Thousands of papers were retracted for violations of scientific ethics. The changes also affected the main bibliometric base of the country. The database became hierarchical in 2016. As before, any publication can be indexed on the portal. At the bottom of the database hierarchy are poor quality publications that are not counted by either employers or grant makers. The middle level of the database hierarchy is peer-reviewed publications. The editors of journals and books provide reviews confirming the required level of publication quality. And, finally, the highest level is the "core" of the RSCI, in which a strict selection of journals is carried out, taking into account scientometric indicators and peer review. Until this year, the RSCI core was part of Web of Science as a regional database. Now it exists as an independent project within the Russian Science Citation Index.

The first editorial discussed the main features of Russian publishing culture

(Volkova, Zuev, Rusalov, 2021). Let's turn again to the topic of scientific journals. There are practically no general journals in the Western tradition. The well-known journals "Science" and "Nature" are rather an exception. Psychology, which according to Western classifiers includes both cognitive science and social science, is mainly represented by journals created according to the industry principle, for example, "Family Psychology" published by APA. It should be noted that the more advanced the area, the more differentiated journals are published in it. The highest impact factor in the core Web of science collections is currently held by medical research journals in the field of cancer treatment. In Russia, the situation is the opposite, namely, almost all journals, even within a specific subject area, claim to be universal. It should be noted that there were practically no highly specialized journals in the Soviet Union. Today the situation is somewhat different. Some journals included in the core of the RSCI have an industry focus. For example, "Social Psychology and Society", "Psychological Science and Education", etc. A similar trend is also present among journals striving to get into the core of the RSCI. For example, the Institute of Psychology of the Russian Academy of Sciences. Socio-economic psychology".

At the same time, scientific results in Russia are traditionally published not only in scientific journals. An integral and very important part of the Soviet and then Russian publishing landscape are collections of scientific articles, author's and collective monographs. Let us briefly describe their meaning using the example of the Institute of Psychology of the Russian Academy of Sciences (AS USSR). Publishing activity started from the first days of the existence of the Institute of Psychology AS USSR. At the very first meeting of the Academic Council of the newly formed scientific institution, which took place on June 29, 1972, the plans for books that were to be published under the heading of the Institute of Psychology at

the Nauka publishing house were discussed.

The real flowering of collections of articles as a special type of publication falls on the 1970s and is associated with the founding of the Institute of Psychology of the USSR Academy of Sciences. As mentioned above, initially close attention was paid to publishing issues, but the mass appearance of books under the heading of the Institute of Psychology AS USSR dates back to 1974. And, certainly, there were collections of articles. Both collections of articles published in 1974 are of an industry nature: the first book is devoted to psychophysics ("Problems of Psychophysics"), the second discusses issues of personality psychology ("Theoretical Problems of Personality Psychology"). They in some way set the standard and the specifics of the collections of articles of the 1970s. Books summarize a certain stage of theoretical development in a certain area. The very fact that the collections were published underscores the importance of these branches of psychology and the need for their further development. In a way, they set the standard and the specifics of collections of articles of the 1970s. The books summarize a certain stage in the development of an area. The very fact of publication of the collections emphasizes the importance of these areas of psychology and determines the prospects for their future development. This feature is characteristic of the vast majority of collections published at the Institute of Psychology (AS USSR). It is impossible to ignore the fact that the books are very high quality published by the Nauka publishing house. Evidently, it can be stated that the formation of a collection of articles (and, accordingly, an article in a collection of articles) as a special type of scientific publication, which occupy an intermediate position between an article in a journal and a monograph, belongs to this period. A journal article implies a rigid structure depending on the type (empirical, review, etc.) with a clearly

defined volume. The article in the collection does not restrict the authors so severely and provides them more opportunities. This feature became most pronounced in the second half of the 1980s, when the Institute of Psychology received the right to independently conduct publishing activities. Thus, the collections published by the Nauka publishing house are joined by a considerable stream of books published directly at the Institute of Psychology (AS USSR).

The 1990s were a difficult time in many respects, including a significant reduction in science funding. Nevertheless, books as well as collections of articles were regularly published at the Institute of Psychology. The volume of work of the Nauka publishing house was greatly reduced, and for the researches the publishing house of the Institute of Psychology became the main publishing house. Publications cover a wide range of issues which include, first of all, the reaction to the ongoing social upheavals in a variety of aspects: personal, socio-psychological, etc. The penetration of various Western theories and methods into Russia led to the publication of diagnostic methods. Nevertheless "Classic" academic publications also continued to be published, such as a 1993 collection of articles on the psychology of color. In general, it can be summarized that both publishing in general and collections of articles, as a special type of publications, have survived and have not lost their specificity, despite difficult external circumstances.

In the 2000s, the range of books expanded notably, and publishing series were formed. However, the subject matter of books in some cases is somewhat "blurred". There is a departure from integrity, from a specific direction or area of research.

The role of collections of articles is changing due to the change in formal evaluation in the 2010s. It is necessary to mention a number of fundamental publications relating to this period,

namely, "The Principle of Development in Modern Psychology", which echoes the book of 1978 "The Principle of Development in Psychology". It should be noted the collection "Human Resilience: Individual, Professional and Social Aspects", in which both leading domestic and foreign scientists were involved.

Currently, articles from collections and monographs are not included in the core of the RSCI, but it can be assumed that this situation will change over time. In our analysis, which will be presented below, we did not ignore these publications.

The objectives of the article are (1) to demonstrate the capabilities of the Russian bibliometric base and (2) to show how psychology is represented in Russia.

3. Method

The standard search for RSCI for the key word "psychology" (headlines, keywords, abstract) was effected without the using of altered grammatical forms. Of course, this search technology has clear restrictions and raises the question of the relevance of the request. In this article, we will not enter into a discussion on this matter. Definitely, this search technology has clear restrictions and raises the question of the relevance of the request. In this article we will not discuss this issue. We have identified those works whose authors are unambiguously associated themselves with psychology. Another reason was the desire to limit the number of studies that will fall into the sample, it should not be excessive.

4. Results

The total number of publications corresponding to the criteria of the request is 4570. Moreover, the articles in the journal are only 1676 among them. This ratio (approximately 1/3) illustrates those features of the Russian publication culture that were described above: the journal article is not the only means of scientific communication between scientists. However, it should be noted that psychology occupies an intermediate

position between natural-scientific and humanitarian disciplines. The interdisciplinary status of psychology also affects its expression on the publication landscape. Only 244 articles are indexed in WoS and Scopus databases. This is about half a percent of all publications, which indicates a low level of representation of Russian psychology in the world public stream.

However, if you look at the relative number of all published articles, it turns out that more than 14% of the publications of Russian psychologists meet international standards, and Russian psychology partly corresponds to world trends. Here a meaningful analysis is needed, to which separate works will be devoted. In total, 5986 authors were the authors of the articles. This figure gives only a rough idea of the number of researchers involved in scientific research in the field of psychology. At the same time, we note that the total number is quite impressive. For comparison, the total number of researchers at the Faculty of Psychology of Moscow State University, the Psychological Institute of the Russian Academy of Education and the Institute of Psychology of the Russian Academy of Sciences is less than 500. Thus, the spread is quite high. Below is an analysis of the leaders of organizations by the number of articles.

The published materials are quite in demand both among psychologists and scientists of other disciplines. In total, published works are cited in the RSCI 11197 times. At the same time, there are 1167 self-citations, that is, approximately 10%, which can be considered a very good indicator. The Hirsch index of the sample is 39 units.

4.1. Thematic headings

According to the thematic headings, most of the articles (3026) are, as expected, related to psychology. These articles cover 36 scientific topics, which testifies to the interdisciplinary status of psychological research (see Table 1). The absence of physiology among these areas is surprising, since psychologists and

physiologists traditionally conduct joint research. It is likely that such studies are labeled in the title and keywords as physiology or psychophysiology, but not as psychology.

Collaboration with pedagogy is traditional for Russian psychology. As is known, the only research institute engaged in psychological research was for a long period part of the Academy of

Pedagogical Sciences. Philosophers and sociologists are also often co-authors of psychological research. A significant number of works on legal psychology are of interest. The presence of psycholinguistic studies in the Russian sample fits into the global trend. It should be mentioned that psycholinguistics is a separate section in our journal.

Table 1. Thematic headings of publications

Thematic headings	Number of publication
Psychology	3026
Public education. Pedagogy	715
Economy. Economic Sciences	143
Philosophy	124
State and law. Legal Sciences	95
Sociology	88
Medicine and healthcare	72
Physical culture and sport	58
Linguistics	37
Social sciences	22

4.2. Keywords

Let us turn to the analysis of the most frequent keywords of the publications presented in Table 2. In total, the authors used more than 1000 keywords.

The most frequent keywords refer to areas of psychology. The exceptions are the keywords "personality" and "family psychology". Apparently, this is another facet of the national publishing culture. However, the first of them can be recognized as marking the direction. Family psychology in Russian psychology is most often not considered as a separate direction. The study of the family is usually carried out within the framework of developmental psychology, social psychology, and other areas. In any case, family psychology is not institutionally fixed in Russian psychology.

The leading position is occupied by studies of a social orientation (pedagogy, social psychology, social work, family psychology). Considerable attention in Russian science is paid to the

methodology and history of psychology, which is undoubtedly a feature of Russian psychology. Western methodological studies and discussions follow different rules. The same applies to the history of psychology.

4.3. Russian journals in which the articles of the sample were published

Publications were distributed among 627 journals. Let's focus on the top five (see Table 3). It should be noted that our request implied the presence of the word "psychology" in the title. This explains why not all journal articles with clearly defined psychological themes were included in the sample.

The results obtained confirm the specifics of the Russian publishing culture described above, namely, three out of five journals publish articles on the broadest topics. The journal "Institute of Psychology Russian Academy of Sciences.

Table 2. Selected publication keywords

Keywords	Number of keywords
Psychology	1460
Pedagogy	616
Social work	558
Personality	349
History of Psychology	318
Social Psychology	151
Developmental psychology	115
Psychology of the family	115
General Psychology	102
Methodology	84

Social and economic Psychology” is an industry-specific one. The Journal «Cultural-Historical Psychology» is a cross-disciplinary journal but it accepts papers made within the framework of a particular paradigm of psychology.

It should also be noted that two of the five journals are published by the Institute of Psychology of the Russian Academy of Sciences, the leading Russian psychological center, which is the publisher of our journal as well. The Institute of Psychology of the Russian Academy of Sciences is also the leader in terms of the number of publications among organizations (see Table 4).

The data obtained testify to the predominant localization of psychological research in the Russian capital, Moscow (7 out of 10 organizations); St. Petersburg is in second place (2 organizations); Yaroslavl is in third place (1 organization). It should be emphasized that both St. Petersburg and Yaroslavl have long established their own psychological schools, and it is not surprising that organizations from these regions become leaders.

It should be emphasized that regional psychology in Russia is much more widespread and includes many scientific centers: in total, articles were submitted from 662 organizations.

4.4. Number of co-authors of articles

In contrast to the global trend of doing research in large collaborations, about half of the articles in Russia are written by one author (2291 out of 4570); about a quarter of all articles (1135 out of 4570) are by two authors; 526 by three authors, 213 by four authors. Less than a hundred articles were written by a large number of co-authors. The largest number of authors is 75. It must be emphasized that this is a collective monograph, and not an article.

4.5. Number of citations

The last metric offered by the standard RSCI sample analysis tool is the distribution of publications by citation count. This analysis tool is useful for understanding the relevance of research. Most of the articles (2684 out of 4570) are not cited, which reflects the global trends. 595 works are cited once, that is, about 30%. Two citations have 311 publications, three citations - 215 publications, four citations - 147 publications, five citations - 119 publications. More than five citations in each group have less than a hundred publications. The maximum number of citations is 237 (Monograph by V.A. Mazilov “Methodology of psychological science: history and modernity”).

Table 3. Distribution of articles by journals (top 5)

Journals	Number of publications
Psikhologicheskii Zhurnal	68
Institute of psychology Russian Academy of Sciences. Social and economic psychology	56
Yaroslavl Pedagogical Bulletin	33
Cultural-historical psychology	31
Voprosy Psychologii	26

Table 4. Distribution of publications in the sample by organization (top 10)

Organization	Number of publications
Institute of Psychology of the Russian Academy of Sciences	200
Moscow State University of Psychology and Pedagogy	172
Lomonosov Moscow State University	168
Yaroslavl State Pedagogical University named after K.D. Ushinsky	160
St. Petersburg State University	149
Moscow State Pedagogical University	137
Russian State Pedagogical University named after A. I. Herzen	104
National Research University Higher School of Economics	96
Moscow City Pedagogical University	91
Psychological Institute of the Russian Academy of Education	66

The article by Zhuravlev A.L., Yurevich A.V., Mironenko I.A. "Psychological Science in the Global World: Challenges and Prospects" (Psychological Journal, 2018, vol. 39, No. 2, pp. 58-71) is the most cited among articles. The standard RSCI tools also allow you to consider citing publications from different angles. There are 12 metrics in total: distribution of citing publications by subject, keywords, journals, organizations, authors, and years. The distribution of citations is similar. These metrics are useful for analyzing the relevance and scope of the research subject area. For this purpose, let us consider the distribution of citing publications by subject (Table 5).

The data presented in Table 5 largely duplicates Table 2. However, there are some differences that should be considered. There is a clear trend in the specification of research objects: students, teenagers, family. The subjects of research

are also formulated more specifically: motivation, development. The history and methodology of psychology are still strong. The data presented in table 5, largely duplicate table. 2. However, there are some differences that should be considered. There is a clear trend in the choice of research objects: students, adolescents, and families. The subjects of research are more specifically formulated: motivation and development. The history and methodology of psychology are still relevant.

5. Conclusion

The Russian publishing culture has a number of features that partly overlap with the world culture (the importance of high-ranking publications in journals, the aspiration of Russian journals to international bibliometric databases, etc.). At the same time, specificity is retained, associated primarily with the

Table 5. Distribution of publications that cited articles in the sample by keywords (top 10)

Keywords	Number of publications
Psychology	768
Personality	688
Education	338
Students	334
History of Psychology	315
Motivation	182
Development	177
Adolescents	124
Family	114
Methodology	111

high significance of collective and individual monographs.

The Russian hierarchical bibliometric database (Russian Science Citation Index) has significant tools for analyzing both individual publications and their selections. Many of the presented RSCI metrics have no analogues in international bibliometric databases.

An analysis of publications in psychology indexed in the RSCI for the period 2017-2021 made it possible to identify the main areas of psychological publications, keywords, leaders among organizations and journals. In terms of content, publications are most often marked by areas of psychology. However, citing publications make it possible to specify directions in the subjects and objects of research.

The peculiarities of the Russian publishing culture include a small number of co-authors of publications and a pronounced interest in socially significant objects of research, as well as in the history and methodology of psychology.

CRedit author statement:

Zuev K.B.: Data Collection, Writing-Original Draft Preparation.

Volkova E.V.: Conceptualization, Writing-Review & Editing.

Highlights:

- Scientific publications in Russia comply with advanced international standards.
- The Russian bibliometric database has a hierarchical structure. The RSCI core is included in Web of Science.
- Russian psychologists have published more than 4,500 articles over the past five years.

Reference

1. Hicks, D., Wouters, P., Waltman, L., De Rijcke, S., & Rafols, I. (2015). The Leiden Manifesto for research metrics. *Nature*, 520, 429–431. doi: 10.1038/520429a
2. Nalimov, V.V. & Mulchenko, Z.M. (1969). *Scientometrics. The study of science as an information process*. Moscow: "Science". [Nalimov V.V., Mulchenko Z.M. (1969). *Naukometriya. Izuchenie nauki kak informacionnogo processa*. M.: «Nauka»].
3. Volkova, E.V., Zuev, K.B., & Rusalov, V.M. (2021). Grand challenges in Modern Sciences. *Natural Systems of Mind*, 1(1), 5–14. DOI: 10.38098/nsom_2021_01_03_01
4. Zuev, K.B. (2021). Current Russian psychology in the international bibliometric area. *Proceedings of the Institute of Psychology of Russian Academy of Sciences*, 1(1), 4–11. [Zuev K.B. (2021). *Sovremennaya rossijskaya psihologiya v mezhdunarodnom bibliometricheskom prostranstve*. *Uchenye zapiski Instituta psihologii RAN*, 1 (1) s. 4-11].