# Open access publishing - a challenge for Russian psychology

BORIS B VELICHKOVSKY1

### Abstract

Publication practices in Russian psychology have changed a lot since the break-up of the Soviet Union, but still differ substantially from those in the Western countries. In the last decade, an exponential growth of the number of scientific psychological journals was observed, but in general, scientific publishing is not a profitable business in Russia. There is a lot of variability in the accessibility and quality of the journals. In sum, psychological publishing in today's Russia is not well developed. Open access (OA) publishing technologies seem to bring clear benefits to Russian psychology, but there are some problems that prevent their ready acceptance. First, there is a linguistic problem – Russian readers and writers have bad command of foreign languages. Second, there is a problem of background – Russian readers and writers are not used to Western-style research papers. Third, there is an economic problem – it is unclear, whether Russian universities and funding agencies will ever be ready to support publications in OA-journals. Thus, self-archiving and no-fee OA seem to be the most obvious ways to introduce OA to Russian psychologists.

Key words: psychology; scientific communication; information dissemination; journals; open access; online publishing; language; funding; trends; Russia

<sup>&</sup>lt;sup>1</sup> Boris B. Velichkovsky, PhD, Moscow State University, Russia; e-mail: velitchk@mail.ru

#### Introduction

Science is a public enterprise. The work of a scientist engaged in a project is done only when the results obtained are communicated to some target audience in a widely accepted format. The urge to publish results is fundamental, because it paves the way to unrestricted criticism of all and every aspect of scientific works. Through this criticism, the quality of scientific results constantly rises. The interpretations scientists give their results are going through a series of checks, which authors themselves would hardly be able to think of. The need to reflect the objections makes proposed theories better or leads to their abandonment altogether. Thus, making their work public assists scientists in achieving the Popperian ideal of the outmost scrutiny while making scientific inferences from data.

Besides making scientific results the subject of criticism, publishing of scientific works serves another equally important function – dissemination of information. This function is so basic, that it can hardly be imagined how progress in any area of scientific inquiry would be possible without accumulation of previous research results in persistent form. Turning to the works of others, the scientist gets insights and inspirations he would never get if working in isolation. Again, it is a trivial observation, and, again, it is at the core of successfully explaining the world – the ultimate goal of science. As can easily be seen, publishing is absolutely vital to the progress of science. Today, new publishing technologies effectively compete with traditional printed media, and it is interesting to see how these new developments can benefit the scientific endeavor.

Open access publishing is one of those hot technologies, which suddenly became omnipresent. Open access (OA) simply means the possibility to access and handle (primarily scientific) content by anyone anywhere. Most importantly, the access to the information comes at no cost. This makes OA so attractive to many individuals and institutions (even in well developed Western countries), but also rises some important questions concerning, for example, the funding of OA. In this article, new perspectives OA publishing would have in the context of Russian psychology will be discussed. To this end, a sketchy description is first given of psychological publication practices in Russia. Then some well-known strengths and weaknesses of OA publishing schemes are presented and how they fit into the reality of contemporary Russian psychology.

## Publication practices in Russian psychology

In the past decades, scientific publishing in Russia experienced a radical change due to the transition to a market economy, which implied serious transformations of all aspects of Russian society. This is exceptionally true for Russian psychology for reasons I will outline below. In the "classic" Soviet time, psychology was regarded as a somewhat marginal science, not comparable in impact to "hard sciences" like physics etc. This is reflected in the fact, that the very first Department of Psychology was opened at Moscow State only in 1966, significantly later than in the West. Accordingly, during the Soviet period, psychology was an exclusive occupation with only four universities training professional psychologists in the whole Soviet Union. The yearly intake of these four distinguished universities was maximally 100 students each. This led to a very compact professional community and the need for extensive publishing space was not so pressing. Indeed, before the 1990s only three

psychology journals deserve mention. These are (1) *Voprosy Psikhologii* (Psychological Problems), published by Psychological Institute of Russian Academy of Education since 1955; (2) *Vestnik Moskovskogo Universiteta. Seria 14. Psikhologiya* (Moscow University News. Series 14. Psychology), published by Moscow State University since 1977; and (3) *Psykhologicheskyi Zhurnal* (Psychological Journal), published by Institute of Psychology of Russian Academy of Sciences since 1980. Of course, these journals could not satisfy the publication demand, so that Soviet psychologists often published their works in journals from related fields, like psychiatry, medicine, physiology, sociology, and ergonomics. To compensate for the relative scarcity of publishing resources, compiling collected volumes devoted to some special theme was heavily practiced by many psychological institutions. It is also worth noting, that access to publishing resources was severely limited by the state on ideological grounds. Additionally, publishing in foreign journals was exceptionally rare for Soviet psychologists. Thus, the structure of the "psychological publication landscape" in Soviet Union was markedly different from that in the West.

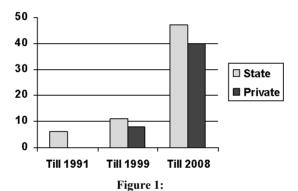
With the introduction of political and social changes in Russia, the situation in Russian psychology changed dramatically. Psychology practically became a mass occupation, reflecting the transformed needs of the new Russian society. Today, approximately 70 institutions of higher education train professional psychologists in Moscow alone. For Russia as a whole, this number well exceeds 300 institutions. This increase in the "labor force" and the elimination of artificial ideological barriers had led to a more pressing situation, where the urge to publish the results of psychological work absolutely surpassed traditional publishing opportunities. As a consequence, the number of psychology journals increased dramatically and the diversity of the "publication landscape" began to approach Western standards. Still, there are some substantial peculiarities to Russian publication practices.

How many psychology journals are now being published in Russia? It is not a simple matter to estimate their number, due to the lack of a widely accepted, accessible register of scientific periodicals in Russia. The situation is complicated by an ever increasing publishing activity, both by private publishers and by state research and educational institutions. One option to determine the quantity of interest is to refer to the catalogues of the Russian State Library (http://www.rsl.ru), the former Lenin State Library in Moscow. This library has a special status and makes the claim of accumulating the majority of printed works published in Russia. Indeed, in many cases publishers (both state-owned and private) are obliged to provide the Library with a copy of every printed work. Thus, scientific psychology journals, which are to be found in the Library, form an approximate representative sample of the population in question. The periodicals' catalogue of the Russian State Library lists 122 journals in the subject field *Psychology*. This is a relatively reliably lower bound estimate of the number of psychology journals, which have noticeable impact on contemporary Russian psychology. It is unlikely to be exceeded very much, which is confirmed by the inspection of the subscription offers made by Internet subscription services.

The analysis of this sample reveals that seven of the journals (5.7%) don't belong to the category of scientific psychology journals, which are of interest in this article. This group consists of popular magazines published by private publishing houses intended for the general audience, concerned with various aspects of work, family etc. For the majority of these journals, the publication started after 2000, which reflects the changing lifestyle of the Russian population. Although I exclude these magazines from the subsequent analysis, it

should be noted that many professional psychologists write for them because of relatively high honoraries and additional publicity.

The temporal dynamics of publications in Russian psychology is of significant interest. Three time periods can be identified when inspecting temporal influences on the number of emerging psychology journals. The first is the period till 1991 (that is, till the collapse of the Soviet Union) – the classic period of Soviet psychology. The second is the period till 1999, which (rather voluntary) denotes the period of the transition to a market economy, accompanied by heavy economic and social problems. Most interesting is the third period – the period from 2000 till now. This is the time of economical relief, which, among other things, has led to the revival of Russian science in general and Russian psychology in particular. Figure 1 shows the numbers of newly appeared psychology journals for the periods mentioned, broken by private and state publishers (as state publishers count state academies and state research and educational institutions, and as private publishers count private publishing houses and private educational institutions).



Number of newly appeared scientific psychology journals in Russia (till July, 2008, broken by private and state publishers).

The inspection of Figure 1 supports the previous analysis on the sociology of psychology in the Soviet Union and post-Soviet Russia. Until 1991, there was a very limited number of psychology-related journals (including psychiatric journals), with no private publishing activity at all. This changed with the transition to the market economy in the 1990s, when the number of journals had risen significantly (with emergence of active private publishers). This development reflects the growing interest in scientific psychology, but also - first of all - the emergence of practical psychology as a mass occupation. It seems possible, that economic difficulties prevented the growth of publishing activity from being even more pronounced at that time. In the last decade, an exponential growth of the number of new journals could be observed, with their number increasing more then fourfold. This is equally true for both state and private publishers, with state publishers producing somewhat more journals (47 vs. 40). Figure 2 gives a more detailed picture of the dynamics of journal appearing in the 2000s. As can be seen from the figure, the number of journals, newly published by private publishers, shows a marked decreasing tendency (the maximum of new appearances falls into the first half of the 2000s), whereas the opposite is true for state publishers. The increase in the journal appearance rate of state publishers is mainly driven by Russian universities, publishing their own periodicals

primarily targeted at local audience and authors (63% of all non-privately published journals). However, a number of journals targeted at a country-wide audience exist, and in this area the private publishers dominate clearly.

The data presented in Figures 1 and 2 give us the following picture. The publishing activity in Russian psychology drastically increased in the last decade. In the 2000s, there was an almost linear increase of 9.6 journals per annum (with the exceptional year 2003, which yielded 15 new journals). However, the structure of this increase varies. Before 2004, the newest content was produced by private publishers. After that, the state publishers came more into the spotlight (the difference is especially marked in the year 2007). One is tempted to interpret these findings in the way that the market for private publishers is saturated, whereas the even better financial situation of Russian universities gives them the possibility to satisfy all the publication needs of Russian psychologists. However, this interpretation must be met with caution. It can well be that, as Russian psychology further develops and author's strivings for more impact of their publication increases, there will be more room for privately published psychology journals in the near future.

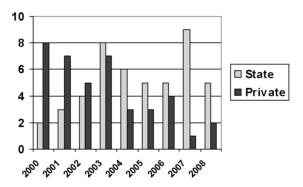
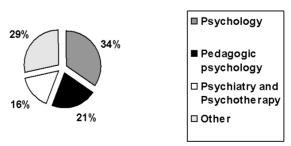


Figure 2:

Number of scientific psychology journals in Russia appearing every year (from 2000 till July 2008, broken down by private and state publishers).



**Figure 3:** Distribution of journal topics in contemporary Russion psychology

Another important point is the content of contemporary psychology journals in Russia. It must be stated, that the information field of Russian psychology is relatively weakly

differentiated due to some imbalances characteristic of Soviet psychology. The distribution of journals' thematic orientations is presented in Figure 3. A striking feature of the informational space is a relative scarcity of specialized journals (with few notable exceptions). Of the 115 scientific journals reviewed here, 40 (34.8%) state their topic as being simply "Psychology", that is they accept papers on any subject that falls into this broad field. These journals should not be confused with journals on general psychology (with which no journal is explicitly associated). Another major thematic cluster is represented by psychology of education and pedagogic psychology (20.9% of the journals). Psychiatry, clinical psychology and psychotherapy are the topics in 15.7% of the journals. Remaining 28.7% are devoted to various subfields of psychology, with each subfield represented by at most two to three journals. Thus, the information landscape of contemporary Russian psychology is clearly dominated by psychology journals of general orientation, which are rather vague in scope, as well as by journals devoted to two practically important thematic clusters – pedagogic psychology and psychiatry, clinical psychology, and psychotherapy. Interestingly, many of the broadly-scoped journals are also accepting papers on other related subjects, like philosophy, sociology and, indeed, pedagogy. This link between psychology and pedagogy is not a superficial one, and has deep roots in the history of Soviet psychology, which continue to show up even in the post-Soviet era. In sum, the level of thematic differentiation is relatively low for Russian psychology journals, with some subfields being clearly over-represented, whereas other theoretically and practically important divisions of psychology enjoying little publishing activity. For example, human factors and engineering psychology is represented in our sample by only one journal, despite considerable research in this area done by Soviet and Russian scientists. Below an incomplete list of special topics, represented in our sample of journals, is given:

- Psycholinguistics (1 journal)
- Historical psychology (1 journal)
- Personality psychology (2 journals)
- Social psychology (1 journal)
- Cultural-historical psychology (1 journal) etc.

The major way to distribute scientific psychology journals is through subscription (provided by publishers themselves and also through specialized subscription services). To estimate the periodicity of journals and the mean subscription price for an issue, a sample of scientific psychology journals provided by a Russian Internet-based subscription agency Nauka-Online was analyzed (http://www.naukaonline.ru) (N = 30, the journals with minimal exceptions from a subsample of the Russian State Library sample). The periodicity of the journals varies within 2, 4, 6, and 12 issues a year. Four issues a year is the most common format (63.3%), followed by six issues a year (16.7%), and twelve and two issues a year (10% of the sample each). The analysis of the subscription prices revealed a mean issue price of 308.20 Rubles (ca. 8.36 Euro), SD = 141.07 Rubles (3.83 Euro). There are considerable rebates for subscribing for an entire year (of up to 10%).

Many of the journals have a web-site. Some (most private) have an Internet-version with paid access, or are maintaining a free electronic archive of abstracts. For well-known journals, like *Voprosy Psikhologii*, a more common practice is to re-distribute its previous content in the form of a compact disc, which can be ordered from the publisher. Such CDs contain a database of journal's articles for an extended period of time, usually searchable by

author, title, year and keywords. For example, *Voprosy Psikhologii*, provide such a CD for the period from 1986 till 2005 for 1250 Rubles (ca. 34 Euro).

The question of publication financing is absolutely vital in contemporary Russia. As the costs of producing a printed version of the journal are relatively high, and the financing of science is low, it is hard for the publishers to make a profit with scientific content. Consequently, the authors' honoraries are almost never paid (an honorary of about 1000 Rubles – ca. 29 Euro - is paid if the article is explicitly ordered by a well-reputed journal). Many journals published by educational and research institutions totally depend on their financial support. Still, there are a considerable number of journals, which try to finance themselves through imposing at least some of the publication costs on the authors. Typical prices range from 200 to 300 Rubles (5.4 to 8.1 Euro) per page (1800 characters with spaces), without color drawings. So, it is not uncommon to pay up to 100 Euro for a 15 pages research report. Of course, for many typical researchers this severely restricts the opportunities to publish their work, their monthly earnings practically never exceeding 15000 Rubles (ca. 430 Euro). There are also hidden costs of publishing a scientific work. In case of a special urgency (as when the publication is needed for successfully defending a doctoral thesis, see below), experts speak of unofficial publication prices for a well-reputed journal peaking at 20000 Rubles (ca. 550 Euro) per publication. This practice is clearly not legitimate, but can hardly be prosecuted.

Many journals nowadays implement a review process, which is aimed at raising the quality of the journal's content. In principle, the review process resembles that of any Western psychological journal. Reviewers (most often only one) work blind of the authors' identity or affiliation. A typical outcome of the review is a one-page written statement, which is structured as follows: short description of the content of the article, depiction of both positive and negative aspects of the work, objections and decision of the reviewer. However, even in well-established journals, the work of the reviewer is not formalized in any way. That is, there are no formal criteria, by which the reviewer can judge the quality of the article being reviewed. Equally important, the reviewers are not formally encouraged to be critical, and negative reviews are often not welcomed by the editors.

In the absence of the formal criteria, it is very hard to judge the quality of the articles, published in contemporary Russian journals. One such criterion can be invented, that is, the amount and quality of statistical data analysis in published works. Clearly, it shows how well the work done is empirically grounded. Taken were 12 issues of the two most renowned Russian psychology journals, Voprosy Psikhologii and Psikhologicheskii Zhurnal, for the year 2004, and every article was inspected according to this criterion. The following picture emerged: In total, there were 125 articles, 70 of which were research articles containing empirical material. Five studies were purely descriptive, and in 13 descriptive statistics and frequencies with no statistical inference were used (25.7% of the sample). Group comparisons and correlation analyses were common (in 52.9% of the sample), with prevalence of non-parametric methods (sometimes despite relatively high Ns). Also typical was the use of  $\chi^2$ -methods (in 18.6% of the sample). Multivariate methods were relatively seldom, with factor analysis being the most common procedure (employed in 17.1% of the sample). In some cases, cluster analysis (three instances) and multidimensional scaling (two instances) were used. ANOVA was heavily under-used (six instances), with only one instance of n-way ANOVA. There was an almost complete lack of regression techniques (three instances). Only three articles were devoted to structural equation modeling.

Additionally, some noticeable deficits could be observed when inspecting the way statistics were done in the reviewed articles. Proofs of normality were almost completely lacking. Significance levels or values of criterion statistics were sometimes not present. With factor analysis, the reasons for the selection of a factor solution were almost never given. The recommended variables/observations ratio was often severely violated. Where n-way ANOVA should be employed, group comparisons were used instead, paving the way for alpha-inflation. In sum, concerning the quality of statistical data processing, the reviewers in contemporary Russian journals are doing a relatively poor job. Admittedly, this is an area in which Russian psychology, being more theoretically oriented, was never very competent.

Another important tool in raising the overall quality of scientific work – citation indexes – is widely unknown in Russia. Sociological surveys have shown that even highly decorated scientists pay no attention to their citation indices, nor even know what a citation index is. Russian journals are heavily underrepresented in international citation indexes. It is estimated that only about 5% of all Russian scientific journals are represented internationally. The situation for psychology, being less developed than other scientific disciplines in Russia, is surely even worse. There is no data on the impact-factors of Russian psychology journals, but higher bound estimates can be made on the basis of journals in the "hard" sciences like physics, chemistry, geology etc. For them, the impact-factors of journals are typically judged as low or even very low (seldom exceeding 0.5, JCR data for 2000). Thus, Russian psychology journals are widely unknown in the West and exert practically no influence on the world psychology. This negligible influence is to some extent self-induced – Russian psychology journals were never oriented towards larger audience. In our sample of journals, only three (2.6%) have a full English version and seven (6.1%) translate abstracts into English. So, the language barrier is very effective in preventing Russian psychologists from communicating their ideas internationally.

There is only one national citation index ("Russian Scientific Citation Index", http://elibrary.ru) in Russia. This project, started in 2005 by Russian Federal Agency for Science and Innovations, is still not fully operational now. The reasons for creating a national citation index are fairly obvious. It should overcome the underrepresentation of Russian scientific journals in international citation indexes and allow for a full-fledged qualitative and quantitative analysis of publications in various areas of national science. In 2007, the Index was comprised of about 500 national scientific journals. Thus, the national citation index is far from being complete (there is more than 3000 scientific journals in Russia), and psychology as a discipline is expected to be underrepresented in it.

In the face of relative low impact of national psychology journals, how active are Russian psychologists in publishing internationally? To estimate the international publishing activity empirically, the ScienceDirect database was used (http://www.sciencedirect.com). The numbers of publications in the subject field *Psychology* written by authors from various countries for the last 12 years were compared (from 1996 till 2007, divided into three four-year periods). The country of the authors was identified by setting the "Affiliation" search field accordingly. The countries selected were: Russia, Ukraine (a CIS country most similar to Russia), Poland (a former Eastern block country with close scientific ties to former Soviet Union), and Germany (West-European country with well-developed, internationally oriented science). The results are presented in Figure 4. Several points can be made about this data. First, Ukraine showed the worst result, with only four articles produced in the 2004-2007 time period (beware of the logarithmic Y-axis), and a clear downward trend. Germany, as expected, produced a considerable amount of publications (3020 in 2003-2007), and doubled

its production in the reviewed time period. As for Russia, being an unrivaled scientific leader in CIS (as comparison with Ukraine shows), it produces approximately the same amount of high-quality international scientific publication as Poland does. A crucial difference between the two countries should be noted, however. Whereas in Poland we observe an upward trend, quite similar to that of Germany, an opposite downward trend of similar magnitude is found in the publication numbers of Russian authors. This means that in Russia only a limited number of authors capable of complying to the standards of an international scientific journal exists, this number being comparable to that of a middle-sized European country and also subject to attrition. The most obvious source of this attrition is the "brain-drain" – capable Russian authors leave the country and, accordingly, their affiliations changes. Again, there are fundamental linguistic but also theoretical barriers, which prevent Russian authors from publishing internationally. Also, Russian research funding agencies promotes publishing the results of funded research only in national journals.

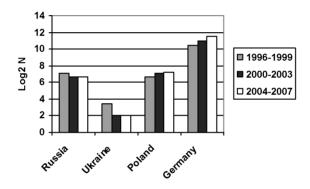


Figure 4: International publication activity of authors from Russia, Ukraine, Poland, and Germany from 1996 till 2007 (Y-axis is log-transformed).

How important is high publication activity for academic career progression in Russia? Officially, it is one crucial factor in obtaining academic degrees or getting employed in high schools and universities. For example, when acquiring a candidate of science title (comparable to a PhD), it is necessary to have at least one publication in a specialized peerreviewed journal, accredited by the Highest Attestation Commission. The Commission is the institution responsible for assigning scientific degrees in Russia. Few psychology journals have such an accreditation (approximately, 1/5 of the Russian State Library sample), which makes the process of manuscript acceptance in the accredited journals sometimes very tense. Actually, the process of defending dissertations in Russia was severely hampered by the shortage of accredited journals in the last years. The doctoral students simply could not publish their works in time (waiting times of up to two years were imposed on them). The number of necessary publications in accredited journals increases to seven, when it comes to defending the second dissertation and acquiring the doctor of science title (comparable to a German Habilitation). A potential doctor of science should also have 30-40 other publications, the quality of which is not regulated in any way. Concerning the prolongation of contracts in the universities, a lengthy publication list is indeed an advantage, but here

also the requirements are fairly moderate. It is typical for a university employee to publish about one paper a year (including conference abstracts) and still be employed. So, the much cited principle "publish or perish" does apply in Russia, but only partially. By and large, the sheer number of publication is all that counts. Active academicians can easily come up with publication lists of some hundred items, with most items being abstracts for national conferences. The quality of publications is largely ignored. It has long been proposed that scientists in Russia should be judged by their citation index, but the mechanisms necessary for such objective evaluation are simply not in place in Russia (see above).

# OA - strengths and weaknesses

OA means that the content of any sort can be accessed by anybody anywhere without any cost. Technologically, this was made possible by the development of the Internet. Thus, effectively all barriers to free circulation of information are removed by introducing the concept of OA. It is not surprising, then, that the concept was the subject of lively discussions and, generally, it is very much supported by scientists, librarians, funding agencies and governments. However, some serious questions concerning the appropriate implementation of OA remain.

Science is a field where OA is especially welcomed, because the development of science vitally depends on free exchange of information. There are two main forms of OA – self-archiving (the so called "green road to OA") and open access journals (the "golden road"). Self-archiving means making an article, already published in a regular subscription journal, also available in some freely accessible database. Today, the vast majority of commercial publishers support self-archiving, either in form of reviewed postprints or not-reviewed preprints. The databases for self-archiving can be local or global, and many research funding agencies encourage self-archiving.

Open access journals are the other, more elaborated form of OA. Theses journals resemble regular scientific journals with Internet interface, providing for peer-reviewing and instant publication of content. The only important difference is the absence of subscription costs. There are several forms OA journals can take. One distinction is between journals with all paper freely accessible, only some papers freely accessible, and journals with delayed free access. The other distinction is between fee-based and no-fee journals. Fee-based OA journals charge their authors a publication fee, which can be quite considerable. It is expected that the fee is paid by the author's employer or research funding agency. The fee can be diminished in case of special circumstances, such when the author comes from a less-developed country. No-fee OA journals do not charge a publication fee. They can have various financing sources, primarily a private or state sponsor. This last form of OA comes closest to the ideal of totally free scientific information circulation, but is also one, for which it is hardest to find an optimal implementation.

The advantages of OA are obvious. From the viewpoint of the scientific content producers (authors), it provides (1) more possibilities to publish, and (2) more impact for published works. Empirical studies show, the OA articles are cited significantly more often than paid-access articles. Thus, by using OA, an author gets access to a larger audience and can count with heightened attention to his scientific product, which has direct effect on his/her career progression. From the viewpoint of the scientific content consumers (readers),

OA removes the logistical and the financial barriers to access the newest scientific information. As peer-reviewing is an integral part of many OA publishing schemes, no drawbacks in quality are to be expected. So, the readers can read more and be inspired by new ideas. It is fairly obvious, that science in general benefits from the advantages mentioned, which in turn leads to more progress of national societies and mankind.

In connection with OA publishing schemes, some objections were raised. Not surprisingly, commercial publishers are the major opponents of OA. The objections made are as follows. First, publishers of toll-access journals indicate that supporting a journal's scientific reputation by providing for high-quality reviewing and editing requires substantial financial resources. Second, the publication fees for authors can be really prohibitive. Third, OA makes scientific content accessible to *everyone*, so it can be used by the incompetent reader to harm him/herself and others. While the third objection is somewhat peripheral to the OA discussion, the first and the second objections are targeted at the core of the OA endeavor, and must be handled with extreme care.

Despite its rich history, Russian psychology is clearly less developed today than contemporary Western psychology. First of all, it concerns the culture of doing empirical research in order to build sound psychological theories. A by-product of this empirical inability is the relative ignorance contemporary Russian authors show about sophisticated statistical techniques, but also about writing formalized (APA-style) research papers. The preceding analyses of publication practices in Russia may have supported this point. One of the promises of OA is that it is especially beneficial for scientifically less-developed countries, giving their residents accesses to high-quality information with no cost at all. In the section that follows, we will see whether these prospects hold for Russia.

## Perspectives of OA in Russia

Russian science in general, and psychology in particular, was heavily underfinanced for the last two decades. Using full-text scientific databases like ScienceDirect, InterScience etc. was exorbitantly expensive for all Russian universities. Only now the situation is slightly turning for the better, so that some leading institutions now provide such access (Moscow State University since 2007, for example), but for the observable time it will remain an exception, not the rule. The supply of libraries with printed media also virtually stopped (although some small-scaled private initiatives provided Russian students with the latest books in English). Under these conditions, access to international publications was a rare occasion for the absolute majority of Russian psychologists. A vicious circle quite naturally emerged – having no access to the hottest scientific results, Russian psychologists became even more isolated from the world of psychology, which in turn prevented further attempts to re-integrate.

In principle, OA technologies have the power to break this vicious circle. Internet access is now absolutely ubiquitous in Russia, and in the universities, it is free. Repositories of self-archived articles and OA journals could provide the Russian reader with the much needed up-to-date scientific information, which would allow them to re-integrate in the world's psychological process. Russian psychologists would then be aware of new theories and empirical results, as well as data processing methods and methodological approaches. Summative analysis like qualitative literature reviews and meta-analysis – practically non-

existent in Russia – would become possible. However, there are also some obstacles. The first, most obvious problem is the linguistic one. Even young scientists usually have little practice in reading scientific literature in foreign languages. This is practically not required by the current curricula, although foreign language teaching is a part of them. In most cases, it reduces to reading introductory texts on general psychology. For the older generation (who are more probable to produce high-quality scientific contributions), the situation is even worse, given its Soviet past, where there were practically no contacts with foreigners. So, many of the possible readership in Russia will be reluctant to use the OA information. Of course, some linguistically competent scientists already use OA resources extensively.

The second problem has to do with the theoretical background of the older and the younger Russian scientists. The infiltration of Western psychological theories and methods into Russia does surely take place, but at a relatively low rate. The contemporary university curricula are still largely based on the rich theoretical legacy of the Soviet psychology, which developed itself in relative isolation from the rest of the world. Russian scientists are not used to the style of Western research articles, the statistical procedures being headbreaking conundrums, and theoretical interpretations "not deep enough". Surely, a certain conceptual mismatch will occur, and this again will prevent some Russian readers from using OA resources. Of course, both problems – the linguistic and the theoretic one – go hand in hand, and reading more world-class literature is the only remedy.

Having seen the pros and cons from the perspective of the scientific content consumer, let us turn to the producer's side. Here, again, the situation is ambivalent. OA publishing can provide Russian authors with some considerable advantages. First, as was shown above, there is a largely increasing number of professional psychologists in Russia and the need for publication possibilities has risen accordingly. This can be seen in the explosive growth of the number of scientific journals in Russia (see Figure 1). Additionally, there is an institutional urge to publish more – it is required for successful career progression, and the research funding organizations in Russia push grants' recipients to publish results of funded research. OA resources would give Russian authors additional room for presenting their work. Second, as also was shown above, Russian national journals have practically no impact on the world's psychology. So, the effect OA publishing has on raising the impact of published works would be multiplied for Russian psychologists. Third, the high scrutiny of Western-style peer-review (which is said to be guaranteed in OA publishing) would definitely be profitable for Russian authors in developing their level of proficiency. Along with these advantages, however, come some problems.

First, there is still a linguistic problem, which is even more exaggerated when *writing* an article. This alone would prevent a considerable number of Russian psychologists from contributing to a OA resource. There are even more intricate linguistic problems. It is even not a question of lexicon or grammar, but that of style, which immediately lets the reader to make the decision whether he will invest time in reading an article. Theoretical background of Russian authors will again be problematic, if they try to contribute to an OA journal. Some would never pass the reviewing process. Also, the potential target group for OA resources is not as large as it seems. Although thousands of new psychologists are being produced in Russia every year, only a small fraction of them become scientists (other going to private economy). Experts estimate this possible audience being as large as 1500-2000. Today, only a part of them is capable of producing scientific content of necessary quality.

The data on the number of international publications by Russian authors (Figure 4) supports this point.

However, the processing fee OA journals impose on their authors seems to be the most problematic obstacle. A more thorough analysis would be needed to say, what sum would be economically acceptable for a Russian author as a processing fee (it should surely not exceed 100 Euro, if OA publishers do not want to exclude a priori Russian provincial authors from consideration). It can hardly be expected, that the employers would pay for OA publications. Russian research funding agencies - until now – also have not considered these expenses in their calculations. A typical grant in Russia provides modest 30000 Rubles (ca. 800 Euro ) per researcher a year, with half of the sum being fixed for buying scientific equipment and the other half being intended for paying the scientists. So, to circumvent these restrictions in order to pay for a publication, the grant holders will have to reduce their salary.

The last negative point to be made is the following: As was shown above, the publication practices in Russia differ from that in the West, and the impact active publishing has on the career progression in Russia is not so high. At least, there are important idiosyncrasies in the academic career progression in Russia, like the necessity to publish articles in journals accredited by the Higher Attestation Commission. These idiosyncrasies should in some way be combined with OA publishing practices if they are to be successful in Russia. In sum, the points mentioned make Russian participation in OA activities somewhat questionable.

### **Conclusions**

OA in general and the proposed European Psychological Publication Platform in particular, offers great advantages for Russian psychology. It could help Russian psychology to overcome its artificial isolation from the world's psychological process. Russian readers would get access to the newest scientific information. They would also get the opportunity to communicate their ideas and findings internationally. However, some negative moments must be handled, before this becomes reality. The advantages of the OA publishing most naturally apply to the young generation of Russian psychologists. It seems that only a small group of highly qualified scientists from the older generation will consider OA as a publishing option. Self-archiving and no-fee OA journals are the most obvious ways to introduce OA in Russia. Concerning the fee-based OA journals, additional steps must be undertaken to raise funds to finance this type of scientific publishing. Time will pass before the majority of potential Russian authors will learn to fully comply to up-to-date publication practices. Time will also pass, before OA journals will gain high reputation in the eyes of Russian research funding agencies and governmental bodies responsible for the management of science. So, OA is quite a challenge for Russian psychology – it promises clear benefits, but some essential new skills must be learned and new habits must be acquired. As realworld experience teaches us, it can be a very tedious thing to do.