Nation-cultural aspects of scientific communication

S.M. Govorushko
Pacific Geographical Institute, Far Eastern Federal University
Vladivostok, 690041, Russia; Vladivostok, 690091, Russia
sgovor@tig.dvo.ru

ABSTRACT

The objective of this publication is to find out how the scientists of different countries and specialties feel about the problems of colleagues. The material was acquired on the basis of analysis of a great number of letters (more than 10 thousand ones to 2542 researchers from 83 countries) containing the different requests. Depending on the result, each answering letter was estimated by a certain score (grade). Further, the scores (grades) were summed for each country and each specialty, the corresponding mean score was determined and the ranking was carried out. The results showed the existence of large differences in response of respondents of different countries. To some extent, the “response” of countries follows the geographic zonality. As a whole, the lower percentage of positive answers corresponds to decrease in the latitude in the Northern hemisphere. To the contrary, the relation between the specialties of respondents and number of positive answers is practically absent.

Key words
geographic zonality, nations, ranking, requests, respondents, specialties
INTRODUCTION

This article is the secondary product of my publishing activity. As the researcher of the Pacific Geographical Institute (Vladivostok, Russia), I take up the problems of interaction of the humanity with the environment. In turn, this subject is divided into three components: 1) effect of natural processes on the human activity; 2) effect of economic activity on the environment; 3) assessment of the nature and society interaction – environmental audit, environmental impact assessment (EIA) etc.

I consider all of these subjects on the global scale. In this regard, I carry on an active correspondence with the research scientists from many countries. This has commenced in 1986, but has sharply intensified in the period of 2000-2015. The primary goals of this correspondence are: 1) information search; 2) search of photographs; 3) search of maps; 4) obtaining the permits for publication of photographs obtained; 5) obtaining the permits for publication of maps. Primary volume of correspondence is related to publications (Govorushko 2003, 2005, 2007, 2009, 2012, 2013, 2014a, 2014b, 2015). In addition, the contacts with members of organizing committees of conferences are brought about.

Overall number of the letters posted by me exceeds 10 thousand. In the "precomputer and early computer era", I have stored them into paper folders and each outgoing letter bears the end result (author sent necessary article or photograph, sent his other publications, wrote back pretending the busyness, recommended other person, made no answer at all etc.). In the present millennium, all the letters are stored in electronic format.

I got the impression that, after the appropriate processing of results of this intercourse in correspondence, one can acquire the interesting information about how the scientists of different countries and specialties respond to problems of colleagues.

METHODOLOGY

The whole correspondence was reviewed. After that the information on efficiency of my letter was found, I recorded it in two Tables. The first of them reflected data by countries which were represented by respondents while the second by their specialties. Interpretation of answers (responses) (or their absence) was made in accordance with the following scores (Table 1).

| Ranking number | Result | Scores |
|----------------|--------|--------|
| 1              | Sent all + something additionally | 1.5    |
| 2              | Sent that asked                    | 1.0    |
| 3              | Did not send but recommended one or another | 0.5    |
| 4              | Wrote back pretending the busyness | 0.25   |
| 5              | Made no answer at all              | 0      |

Table 1

Scoring of efficiency of letters

After recording data, I determined the number of respondents by each ranking, summed up the achieved by them scores and calculated the mean score of respondents from the country under consideration. The countries with the number of respondents of not less than ten came into account. If their number did not achieve the required value, I combined them into groups on territorial (or residual) principle. The exception was provided by Mexico (8 respondents) because, in the North America, it cannot be combined with something. Therefore, in Tables 20 countries and 13 groups of countries were presented and the overall number of states was 83.

RESULTS

The results of data processing by countries are given in Table 2.

| Group | Place | Country (region) | Total number of respondents | Mean score of respondents |
|-------|-------|------------------|-----------------------------|---------------------------|
| I     | 1     | Switzerland      | 26                          | 0.4519                    |
|       | 2     | Japan            | 27                          | 0.4352                    |
| 3-4   |       | **Scandinavian countries** (3) (Denmark, Norway, Sweden) | 22                          | 0.4318                    |
| 3-4   |       | South Korea      | 11                          | 0.4318                    |
|   | Country/Region | Count | Score |
|---|----------------|-------|-------|
| 5 | Germany        | 89    | 0.4298 |
| 6 | New Zealand    | 19    | 0.4211 |
| 7 | United Kingdom | 94    | 0.4202 |
| 8 | Israel         | 18    | 0.4167 |
| 9 | Australia      | 104   | 0.4106 |
| 10| Canada         | 97    | 0.4098 |
| 11| Western Europe | 24    | 0.4063 |
| 12| United States of America | 1147  | 0.4050 |

| II | Other countries of Europe (4) (Ireland, Finland, Latvia, Estonia) | 28 | 0.3929 |
| 13| France          | 58    | 0.3793 |
| 14| Turkey          | 18    | 0.3194 |
| 15| Mexico          | 8     | 0.2813 |
| 16| South Europe (7) (Greece, Spain, Italy, Portugal, Serbia and Montenegro, Slovenia, Croatia) | 41 | 0.2805 |
| 17| Eastern Europe (6) (Bulgaria, Hungary, Poland, Romania, Slovakia, Czechia) | 37 | 0.2703 |
| 18| South Africa    | 10    | 0.25   |
| 19| Other countries of Africa (9) (Cameroon, Kenya, Namibia, Nigeria, Senegal, Sudan, Tanzania, Uganda, Ethiopia) | 12 | 0.2292 |
| 20| Argentina       | 11    | 0.2273 |
| 21| North Africa (4) (Algeria, Egypt, Morocco, Tunisia) | 14 | 0.2143 |
| 22| Brazil          | 27    | 0.2130 |
| 23| Russia          | 198   | 0.2121 |
| 24| Central America (5) (Guatemala, Costa Rica, Cuba, Panama, Jamaica) | 26 | 0.2115 |
| 25| Other countries of South America (Bolivia, Colombia, Ecuador, Peru, Venezuela) | 11 | 0.2045 |

| III| Other countries of Asia (7) (Bangladesh, Jordan, Iran, Mongolia, Nepal, Pakistan, Sri Lanka) | 28 | 0.1964 |
| 26| Other countries of Asia (7) (Bangladesh, Jordan, Iran, Mongolia, Nepal, Pakistan, Sri Lanka) | 28 | 0.1964 |
| 27| Chile           | 14    | 0.1964 |
| 28| South-East Asia (5) (Vietnam, Indonesia, Malaysia, Singapore, Thailand, Philippines) | 14 | 0.1786 |
| 29| European countries of CIS (3) (Belarus, Moldova, Ukraine) | 13 | 0.1731 |
| 30| Asiatic countries of CIS (6) (Armenia, Kazakhstan, Uzbekistan, Kyrgyzstan, Tajikistan, Turkmenistan) | 34 | 0.1544 |
| 31| China           | 152   | 0.1168 |
| 32| India           | 110   | 0.1046 |
Results of ranking by specialties are presented in Table 3.

Table 3
Degree of “response” of respondents by specialties

| Specialty                  | Number of respondents by rankings | Total scores | Total number of respondents | Mean score of respondents |
|----------------------------|----------------------------------|--------------|-----------------------------|---------------------------|
|                            | 1,5                              | 1,0          | 0,5                         | 0,25                      | 0                         |
| Geology/geomorphology      | 11                               | 152          | 11                          | 18                        | 322                       | 178,5                     | 514                          | 0,3473                      |
| Geography/environmental science | 7                             | 112          | 8                           | 12                        | 240                       | 129,5                     | 379                          | 0,3435                      |
| Hydrology/meteorology      | 8                                | 125          | 9                           | 16                        | 268                       | 145,5                     | 426                          | 0,3415                      |
| Biology                    | 23                               | 322          | 24                          | 38                        | 706                       | 378,0                     | 1113                         | 0,3396                      |
| Other                      | 3                                | 27           | 3                           | 2                         | 74                        | 33,5                      | 109                          | 0,3073                      |
| TOTAL:                     | 52                               | 738          | 55                          | 86                        | 1611                      | 865                       | 2542                         | 0,3403                      |

Generally, some significant differences between the specialties are not observed. The lower score corresponding to other specialties is simply explained. To them, besides the specialists in allied sciences (chemistry, physics etc.), other categories of respondents were attributed. Those were people from production sphere (factory workers, farmers etc.), ordinary nationals whose photographs were discovered by me in Internet etc. Here, the professional photographers and journalists were presented. Because I stipulated in my letters a free provision of photographs, they did not answer in most cases.

CONCLUSIONS

1. Distinctions between countries are very substantial. To some extent, the “response” of countries follows the geographic zonality. As a whole, the lower percentage of positive answers corresponds to decrease in the latitude in the Northern hemisphere.

2. Distinctions in the “responses” between the respondents of different specialties are slightly expressed and stay within the error ranges.

3. The percentage of negative answers with reference to busyness is considerably higher in the countries with high mean score. In the less “responsive” countries, it is favored to simply ignore the letters.

4. The use of individual attention (mention of some papers of a respondent or facts of his biography etc.) enhances appreciably the likelihood of the positive answer. In no case should the respondent understand that he deals with mass mailing.

5. The average digits by continents denote nothing more than “average temperature for hospital”. If the Asia is considered, there the countries with both very high “response” coefficients (Israel, Japan, South Korea) and those with extremely low one (India and China) are presented. Therefore, the mean-continental score is determined by the proportion of the number of respondents from these countries. The same situation is characteristic of Europe where the distinctions between, say, countries of the North and South Europe are obvious. Within this framework, the South and Central America as well as Africa can be apparently recognized as relatively homogeneous.

REFERENCES

1. Govorushko, S. M. 2016. Human Impact on the Environment: An Illustrated World Atlas.Cham: Springer International Publishing AG Switzerland ISBN 978-3-319-24955-1DOI 10.1007/978-3-319-24957-5_1

2. Govorushko, S. M. 2014a. Hydropower structures and their environmental impacts. In: C. E. Rupert (Ed). Hydropower: types, development strategies and environmental impacts (pp. 1–66). New York: Nova Science Publishers, Inc.

3. Govorushko, S. M. 2014b. Cryogenic Processes and Their Impacts on Infrastructure. In: Pokrovsky O. S. (Ed). Permafrost: Distribution, Composition and Impacts on Infrastructure and Ecosystems (pp. 1–65). New York: Nova Science Publishers, Inc.

4. Govorushko, S. M. 2013. Environmental problems of extraction, transportation, and use of fossil fuels. In: Kumar R. (Ed). Fossil fuels: sources, environmental concerns and waste management practices (pp. 1–84). New York: Nova Science Publishers, Inc.
5. Govorushko, S. M. 2012. Natural processes and Human impacts: Interaction between Humanity and the Environment. Dordrecht: Springer.

6. Govorushko, S. M. 2009. Geoecological designing and expertise. Vladivostok: Far-Eastern State University (in Russian).

7. Govorushko, S. M. 2007. Interaction between Humanity and the Environment. Impact of geological, geomorphologic, meteorological and hydrological processes on human activity. Moscow: Academichekskiyproekt (in Russian).

8. Govorushko, S. M. 2005. Natural resources of China. Vladivostok: Pacific Geographical Institute (in Russian).

9. Govorushko, S. M. 2003. Environmental accompanying of economic activities. Vladivostok: Dalnauka (in Russian).

Biography

Sergey Govorushko
Chief research scholar (Pacific Geographical Institute, Vladivostok, Russia)
E-mail: sgovor@tlg.dvo.ru

I was born in 9 May, 1955 in Primorsky krai, Russia, Soviet Union and lived in different parts of Far East of Russia. In 1972 I entered in Far-Eastern State University (Vladivostok, Russia) and in 1977 I finished education on specialty Geomorphology (B.S.). After finishing of university I began my working activity in the Pacific Geographical Institute of Far Eastern Branch of Russian Academy of Sciences. I worked there on next positions: laboratory assistant, senior laboratory assistant, probationer-researcher, junior research scholar, research scholar, senior research scholar, head of laboratory. Since 2006 I am chief research scholar. At the same time I am teaching in Far Eastern Federal University (as a professor).

Degree of Ph.D., Geomorphology I received in Institute of Geography (Moscow, Russia) in 1985. Degree of Prof., Geoecology I received in Institute of Water and Environmental Problems (Barnaul, Russia) in 2002.

I am married and have two sons. I am author of twelve and co-author of 14 monographs. In 2012 I received A.A. Grigoriev' Award of Russian Academy of Sciences for outstanding work in the field of physical geography.