SCIENTOMETRICS & SOCIOLOGY OF SCIENCE

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Martial arts science institutionalisation:
specialized scientific periodicals


Key words: sociology of science, scientometrics, martial arts, journals

Abstract:
The scientific perspective for the study are scientometrics and sociology of science. Creating new journals for new scientific discipline (as the martial arts science) is an interesting process.
The aim of this study is an analysis and explication of the institutionalisation process of this research area (martial arts and combat sports). The questions/problems were: What scientific institutions create journals, what journals, and how can we evaluate them? It will be searched on a national and international scale.
Material and methods. For example, for a comparative analysis 12 journals were selected in the area of martial arts science. In addition, they were compared to the assessment of Polish periodicals, which contain the thematic profile of sport, physical education and tourism. The basis for evaluation remains scientific achievements, yet quantitatively and qualitatively.
Results and conclusions. Two journals published in Poland are among the best in categories of progress, scientific quality and the scope. The first is very strong in biomedical oriented sport sciences, the second – among journals in topics: martial arts, humanistic part of sport sciences, and tourism.
Surely, publishing in today's language of science (English) and in the electronic version with open-access to the full text makes entering of the work to the global scientific circulation easier. Commercialization makes this access difficult, both for authors, readers and scientific institutions. On the other hand, journals and institutions are created, which, thanks to the creativity of its creators appear to be functioning better than before.

Introduction

The scientific perspective for the study is an area of scientometrics, which we find between sociology of science, bibliometrics and information science [cf. Price 1976; Luhmann 1990; Leydesdorff, Van den Besselaar 2010: 12]. The analysis will be more sociological then bibliometrical. For example, the institutionalisation, as a process of creation new institutions, must be understood from a sociological perspective. Administration in science with a problem of evaluation (journals, scientists, institutions) is especially interesting for the sociology of science.
Creating new journals for a new scientific discipline (as martial arts science is) is an interesting phenomenon and process. The institutionalisation of this research area (martial arts and combat sports) will be analysed here. What scientific institutions create journals, what journals, and how can we evaluate them? It will be searched on a national and international scale.

The problem of administration in modern science and evaluation of scientists is considered by many authors [cf. Luhmann 1990; Hackett 2008; Barczyński et al. 2009]. The basis for evaluation remains scientific achievements, yet quantitatively and qualitatively. What should be the criteria for assessing the quality? Scientific journals are subjects of continuous evaluation. We can agree with some theses, e.g., as indicate Barczyński et al. [2009]: “...the use of the Impact Factor (IF) for the evaluation of scientific achievement and research units is not compatible with the idea of IF and often
leads to incorrect inference (...) [it] may not be the primary criterion for assessing the value of scientist, institution or journal”. Barczyński et al. [2009] writes on example of Index Copernicus and “Archives of Budo”. On other hand, creating new journals in open access approach brings also new possibilities in evaluating articles via social media [Pickard 2012].

This study is open to different manifestations of the described process. For a comparative analysis 12 journals were selected in the area of martial arts science.

In addition, they were compared to the assessment of Polish periodicals, which contain the thematic profile of sport, physical education and tourism.

International scale

Previously or currently there are around 10 specialist periodicals. Table 1 includes indexing and scoring of the Polish Ministry of Science and Higher Education (MNiSW), and Scopus indexation. Elsevier / Scopus database is probably the most important, non-commercial scientific base, where the best scientific journals are indexed.

Commercialization of science can be defined as a manifestation of social pathology. So deliberately, the assessment of commercial companies is not included here. Questionable is using the impact factor (IF), which is sometimes not useful. In the case of topics rarely undertaken by researchers, it is not a sensible measure. Secondly, when it is connected with business, the evaluation of journals seems to be overstated or understated.

Wideness of martial arts estimate multi-disciplinary approach. Basically, papers on martial arts and combat sports are sometimes published in other journal of thematic profile sport sciences (as “Journal of Human Kinetics”, “Physical Activity Review” or “Pan-Asian Journal of Sports & Physical Education”) or social/cultural sciences (as “Acta Asiatica Varsoviensia”, “International Journal of Eastern Sports and Physical Education”). These journals are more interested in competitive oriented sports than co-operative martial arts research. However, this particular thematic area is increasingly represented by specialized institutions, less or more international, or global (as the IMACSSS – it will be later about). On other hand, papers on martial arts appear also in journals from psychological, social, cultural area.

What can we say about publishers concerned with Martial Arts & Combat Sports? There are some scientific societies active in the area of martial arts and combat sports. But most of them are national [Cynarski, Słopecki 2012]. For instance, JAB – the Japanese Academy of Budo, has been active since 1968 as publisher of the “Research Journal of Budo” (now in paper and in e versions) [tab. 1]. It publishes papers in English now. Some other Chinese and Korean journals are published in Chinese [Wu 2012] and Korean respectively. Ergo, their scientific global impact is very limited.

IHS – International Hoplology Society, has over 50 years of activity in the USA; International Hoplological Research Center (Honolulu) is the publisher of “Hoplos”. It is (was?) a journal of little impact. The researchers from IHS collaborated with JAMA – “Journal of Asian Martial Arts” (years 1991-2012). JAMA was published by a commercial company “Via Media”, ergo the contents should be well sold. But the mode for martial arts is decreasing.

The impact of JAMA was the highest in the years 1990. Michael de Marco, editor-in-chief, wanted to organise some branches: Greek, Spanish and Polish. For example, Dr hab. W.J. Cynarski (University of Rzeszow) was asked if he would like to publish Polish edition of the JAMA. He has refused for the time being, because of the Idokan project – “Ido Movement for Culture”. Prof. Dr Carlos Gutierrez-Garcia (University of León) has taken the challenge. RAMA – the “Revista de Artes Marciales Asiaticas” – was a Spanish brother of JAMA. Now, RAMA goes its own road. For RAMA editors a strict scientific effect is more important, than a commercial one.

A Turkish private periodical JSSM, the “Journal of Sport Science and Medicine”, has periodically a special issue on combat sports, really very scientific (biomedical approach). The person, who is responsible for the special edition, is Prof. Dr Andrew Lane (UK), a psychologist of sport.

In 2005 AB – “Archives of Budo”, e-journal was founded (the publisher is Prof. Dr R.M. Kalina and a Polish, private, commercial firm). In AB authors must pay for publication of their own works, similarly as e.g. in the JSSM. It is the journal, which received big success in the international scientific area [Kalina, Barczyński 2010]. Nowadays it is a periodical focused on biomedical approach and is
Tab. 1. Scientific periodicals from area of martial arts science (status as Dec. of 2013)

<table>
<thead>
<tr>
<th>Ordinal number</th>
<th>Title of a journal</th>
<th>No. ISSN</th>
<th>Editor, publisher / country</th>
<th>Published since:</th>
<th>Indexation in the SCOPUS list of the MNiSW 2013</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Research Journal of Budo</td>
<td>2185-8519, 0287-9700</td>
<td>M. Kuwamori, JAB / Japan</td>
<td>1968</td>
<td>-</td>
</tr>
<tr>
<td>2</td>
<td>Hoplos</td>
<td>0191-3395</td>
<td>D.F. Draeger, IHS / USA</td>
<td>1979-1992?</td>
<td>-</td>
</tr>
<tr>
<td>3</td>
<td>Journal of Asian Martial Arts</td>
<td>1057-8358</td>
<td>M. de Marco, Via Media/USA</td>
<td>1991-2012</td>
<td>-</td>
</tr>
<tr>
<td>4</td>
<td>Ido Movement for Culture*</td>
<td>2082-7571, 2084-3763</td>
<td>W.J. Cynarski, IPA / Poland</td>
<td>2000</td>
<td>yes 10</td>
</tr>
<tr>
<td>5</td>
<td>EJMAS / In Yo</td>
<td>1492-1669</td>
<td>J. Svinth, SeiDoKai/ USA</td>
<td>2003-2012?</td>
<td>-</td>
</tr>
<tr>
<td>6</td>
<td>Archives of Budo</td>
<td>1643-8698</td>
<td>R.M. Kalina, ** / Poland</td>
<td>July 2005</td>
<td>yes 15</td>
</tr>
<tr>
<td>7</td>
<td>JSSM – Combat Sports*</td>
<td>1303-2968</td>
<td>A.Lane, H.Gur, ** / Turkey</td>
<td>July 2006</td>
<td>yes 20</td>
</tr>
<tr>
<td>8</td>
<td>Revista de Arte Marciale Asiatica*</td>
<td>2174-0747</td>
<td>C.Gutierrez-Garcia, U. de León / Spain</td>
<td>2006</td>
<td>- 8</td>
</tr>
<tr>
<td>9</td>
<td>Journal of Combat Sports and Martial Arts</td>
<td>2081-5735</td>
<td>W. Blach, Politechnika Opolska /Poland</td>
<td>2010</td>
<td>- 7</td>
</tr>
<tr>
<td>10</td>
<td>Imas Quarterly</td>
<td>2049-3649</td>
<td>J. Lee-Barron, IMAS / UK</td>
<td>Winter 2011</td>
<td>- 4</td>
</tr>
<tr>
<td>11</td>
<td>Archives of Budo. Science of Martial Arts and Extreme Sports</td>
<td>2300-8822</td>
<td>R.M. Kalina, ** / Poland</td>
<td>Oct. 2013</td>
<td>- -</td>
</tr>
<tr>
<td>12</td>
<td>IJMAR</td>
<td>1479-6538, 1479-652X</td>
<td>E. de Silva, The Society of Martial Arts /USA</td>
<td>2003?</td>
<td>- -</td>
</tr>
</tbody>
</table>

[Source: own research]

* – on the IMACSSS list of recommended publications

** – private

especially interesting for judo researchers [Peset et al. 2013]. Is it due to the fact that the editor-in-chief is judoka?

In AB a counter of entries to the individual articles is used. However, the counting is quite strange here. One of the first works, which was published here in November 2005 [Cynarski, Sieber, Litwiniuk 2005; Barczyński et al. 2009: 9, tab. 1], had on this counter 1509 entries to the full text and 980 to the abstract in July 2012, respectively 1548 and 984 in January 2013, but the 563 and 155 in July 2013 and 392,5 (2) and 242 in Dec. 1, 2013. Is it therefore adding, or perhaps subtracting?

Since March 1993 the ‘Idokan Poland’ Association has been working in Rzeszów (Poland) and Munich (Germany) [Urbanik 1994; Cynarski 2009: 11-37; Sieber 2009; Cynarski et al. 2011]. This scientific and educational society (a non-profit organization) has been publishing since 2000, the first in Europe periodical on martial arts and combat sports – “Ido Movement for Culture. Journal of Martial Arts Anthropology”, formerly as the Scientific Year’s Issue “Ido – Ruch dla Kultury / Movement for Culture” [Cynarski, Cynarska 2008; Cynarski 2009: 175-181; Cynarski, Yu Jong-Hoon, Litwiniuk 2011; www.idokan.pl].

In February 2010 the first really international scientific society for the science of martial arts (IMACSSS), the International Martial Arts and Combat Sports Scientific Society [www.imacsss.com] was created. During the 2nd World Scientific Congress of Combat Sports and Martial Arts in Rzeszow in September 2010 an international group of experts accepted this institution as a superior one for the all global movement, and Prof. Dr
W.J. Cynarski [cf. Sieber 2009] as the President of IMACSSS. The quarterly “Ido Movement for Culture. Journal of Martial Arts Anthropology” (editor-in-chief is Cynarski) is the e-Journal of IMACSSS, now. Additionally it has a patronage of IASK – the International Association of Sport Kinetics, and works under auspices of the University of Rzeszow. It is published in English with abstracts in English and Polish, as a quarterly, with open access, indexed in Arianta, BazHum, DOAJ, EBSCO/Sport Discus, Elsevier/Scopus and Index Copernicus. The 3rd Polish journal, called JCSMA – the “Journal of Combat Sports and Martial Arts” (Dr W. Blach, Dr W. Tomaszewski and Dr hab. Z. Borysiuk) has been published since 2009 as e-journal in English, with open access. The publisher was formerly the Medsportpress Publishing Agency Ltd., and the Technical University in Opole (Politechnika Opolska, Faculty of PE and Physiotherapy), now. The quality of this journal is increasing [Cynarski, Słopecki 2012].

One of new institutions is IMAS – the Institute of Martial Arts and Science, which organized the first IMAS Conference in Wigan (UK), July 18th 2009. The first issue of the “IMAS Quarterly” (Prof. Dr J. Lee-Barron) was published in December 2011. But, the authors of articles published here were only members of IMAS.

Recently from the company “Archives of Budo” “gemmaled” a new periodical: “Archives of Budo. Science of Martial Arts and Extreme Sports” (tab. 1). For now, it is not indexed anywhere or spotted. But it may shine as his “mother company”, soon. What is interesting, in the “old” AB was stated that papers of Polish experts are among the most often studied taking into account all published articles [Barczyński et al. 2009].

To be complete in MA&CS list of scientific journal, there is International Journal of Wrestling Science published since 2011. The editor is David Curby, Director of International Network of Wrestling Researchers. The journal is specialised in Olympic wrestling and has no impact out of the specialist in this particular sport.

Together with increasing of the impact of the electronic media at the last decade of 20th century, it becomes easier to publish articles or even journals. Everyone has the opportunity to publish privately [Rambler 1999]. But it seems to be clear that wide scope of martial arts and combat sports should be covered by a strong independent society. New movements such as Budapest Open Access Open Initiative (BOAI) and Public Library of Science (PLoS) support free of charge access to knowledge as a new paradigm for scholarly communication [Yiotis 2006]. Open access journals, at the beginning founded in opposition to commercial ones, are available online to the reader, and many MA&CS scientific periodicals use this format. It can help not only to widespread the knowledge, but also to force the scientific impact. Anyway, an institutional support for journals can offer an added value to them [Bolman 2003].

**National scale**

It is significant that among 12 distinguished above specialized scientific journals 4 are issued in Poland. The three most important periodicals, in a chronological order of their creation, show fig. 1 and 2.

Fig. 1 presents a 10-year-long period of evaluation of journals “Ido Movement for Culture”, “Archives of Budo” and “JCSMA” by the Polish Ministry of Science and Higher Education. While previously this kind of ministerial list was created more discretionary, today it is created by clear, unambiguous criteria. Let us examine the details.

“Ido Movement for Culture” has been indexed and scored since 2004. In 2005-2006 it had 2 or 3 points in accordance with the general provisions of the Ministry. What is quite incomprehensible, in 2007, it received only 1 point. It recovered 2 points after the cancellation of the editor-in-chief. In turn, in 2010, editor-in-chief was counted by two different algorithms of ministerial assessment: for physical education and the humanities. In both cases, leaving the score 6 points. But, Ministry has got only 3, rounding to 2 (?). But in the years 2011-2012 we have here an excellent progress: 7 and 10 points. Is the maximum score of 10 points for journals without the calculated IF the rightly fixed barrier?

“Archives of Budo” has been scored since 2007, when it received 4 points. Since 2011, it has had 15 points, thanks to indexation in the Thomson Reuters. In turn, “JCSMA” has been indexed by the Ministry since 2011 and maintains an assessment of 7 points.

If, in the case of Index Copernicus International and “Archives of Budo”, established here evaluation IC Value (ICV) is not judged on its own? ICV is a co-publisher of AB (19.58 points ICV in 2012). Isn’t, in turn, assessment of the competitive “Ido Movement for Culture” underestimated here? Now it is only 6.13 for 2012, compared to 6.9 for “JCSMA” [fig. 2; cf. ARIANTA, Dec. 2013]. Both AB and “Ido Movement for Culture” publish about 40% works of authors or co-authors from abroad, and of similar quality. Only AB prefers more biomedical paradigm, than humanistic approach.

Around the year 2000, Index Copernicus had the best assessment tool in Poland. Now, the MNiSW has the criteria more clear and universal – for every
kind of science. Also the assessment of the Ministry may be regarded as more tangible and credible.

Among journals of sport sciences (or physical culture sciences) we see in tab. 2 several top scoring (subjective selection by the scientific level). It is in this set two of the best periodicals specialized in martial arts science: “Ido Movement for Culture. Journal of Martial Arts Anthropology” and “Archives of Budo”. Both belong to the most recently assessed by the Ministry of Science and exhibit the fastest progress (especially AB).

AB is closer to kinesiology, as “Journal of Human Kinetics.” In contrast, “Ido Movement for Culture. Journal of Martial Arts Anthropology” is an interdisciplinary journal and has the patronage of three international scientific societies. It is the second, next to the “Physical Culture and Sport. Studies and Research” (journal of the International Society for Social Sciences of Sport, ISSSS), most credited Polish journal in the area of humanities in physical culture and of the social sciences of sport (tab. 2).

Nota bene, the best reviewed Polish periodicals in sociology are “Polish Sociological Review” and “Studia Sozologiczne” [Sociological Studies] (15 points).
Some journals are published for many years. During that time, they change their names. A trend is coming to present the texts into English and an electronic version, to increase the range of influence. Periodicals that have achieved a certain international standard, are rated higher. Others, with an even longer than 70-year tradition as “Kultura Fizyczna” [Physical Culture] or “Wychowanie Fizyczne i Zdrowotne” [Physical Education and Health], are currently outside of the ministerial list Higher Education. They have become more methodical means for PE teachers.

Among Polish journals on tourism we also find, and the first place has, “Ido Movement for Culture” (tab. 3). Although only works with cultural tourism theme are published here, but it is also the world’s only journal focusing attention on martial arts tourism [cf. Sieber et al. 2007]. In particular, the first two positions in the ranking (tab. 3) occupy journals indexed in Scopus, i.e. with long-range impact.

It is worth noting that the score of MNiSW (by which scientists and scientific institutions are then held accountable for achievements) affects the interest of Polish authors to publish their works in top scoring journals. That affects the number of works submitted for individual editorial offices, and consequently, the higher probability of selection and further improvement. Journals scored lower can, however, for the same reasons fall.

Discussion

Development of a scientific journal in the specialty of martial arts science was considered by few authors [Cynarski, Cynarska 2008; Barczyński et al. 2009; Kalina, Barczyński 2010; Cynarski, Yu Jong-Hoon, Litwiniuk 2011]. They point to a number of conditions (factors and barriers of development and achieving success). General theses here are consistent with arising from own research. However, methodological preferences and orientation profile (thematic and disciplinary) imply some differences of opinion. For example, “Ido Movement for Culture” is open to the study of the socio-cultural beyond sport science (tourism, especially cultural tourism).

Gutiérrez-García et al. [2011] undertook the problem of the scientific research on martial arts and combat sports (MA&CS), published in the form of articles in three of the Web of Science databases for the period 2000-2009. There are articles indexed in Science Citation Index Expanded (SCI-EXPANDED), Social Science Citation Index (SSCI) and Arts & Humanities Citation Index (A&HCI) databases. Inclusion criteria were: a) indexed as article or review in document type field; b) published in the period 2000-2009; c) referring to MA&CS in general or any sport, style or materialization of MA&CS without considering if their aim was...
competitive, utilitarian, hygienic, artistic, etc. (sports such as modern archery, and firearms-based MA were not included); and d) specifically focused on MA&CS though those which did not focus specifically on MA&CS but contained MA&CS in sampling procedures, results or interventions were also included. Theirs bibliometric analysis included: a) MA&CS studied; b) evolution throughout time; c) journals and journals’ academic subjects; d) languages; e) authors, institutions and countries; and f) grants and funding agencies. What were the results? “The total number of MA&CS articles was 1527. Out of the 38 MA&CS categories, tai chi, judo and boxing included over 200 references whereas wrestling, qigong and “generic” (MA&CS in general) over 100. Twenty categories contained fewer than 10 references. Between 2000 and 2009 there has been a steady growth of MA&CS indexed articles, ranging from 80 in 2000 to 283 in 2009. The total number of subject areas publishing MA&CS articles is 148. As expected, sport sciences accumulate the vast amount of these articles (42.11%)” [Gutiérrez-García et al. 2011].

These findings are generally consistent with the reality of journals in the area of martial arts science. Yet, the quarterly “Ido Movement for Culture. Journal of Martial Arts Anthropology” unites areas of sport sciences, humanities and social sciences [Cynarski, Obodyński, Litwiniuk 2007].

In the perspective of the analysed Web of Science databases, “MA&CS research field is growing strongly at an international level, as shown by the evolution of articles per year and researchers and institutions involved in this field. There are big differences in the research of certain MA&CS, countries/territories and languages” [Gutiérrez-Garcia et al. 2011].

Wu [2012] also points to the fact that it is a subject more often undertaken by researchers in the area of sport sciences. But he only considers publications on Chinese martial arts and published in Chinese journals. Similarly, some periodicals focus attention on one popular combat sport [see: Peset et al. 2013].

We can agree with Luhmann [1990] and Hackett [2008] that the evaluation of the scientific level by scientist or a scientific journal should meet clearly defined quantitative and qualitative criteria. For niche areas or humanistic research any impact factor can be useful. In addition, whether the publication of the works or the scientific quality assessment should not remain in the hands of non-profit institutions? Does the noble field, that has been science for centuries, have to decide according to laws of the market and the business? What about the idea of open access to scientific knowledge?

Conclusions

Surely, publishing in today’s language of science (English) and in the electronic version with open-access to the full text makes it easier for entering of a work to the global scientific circulation. Commercialization makes this access difficult, both for the authors of works, readers and scientific institutions. On the other hand, journals and publishers, thanks to a good creativity appear to be functioning better than before. New technologies give a chance to enhance scholarly communication. Among criteria for the evaluation of scientific achievements the scope (local or international) should be taken into account. It is important, where the author publishes. Of course, language of publication does not preclude the merits of the work, but it helps or hinders the availability of such content on a global scale.

In assessing the quality of scientific journals, it is important not so much who publishes in the journal, only what he brings to the knowledge.
When there are works, which had previously been plenary lectures at international scientific congresses and conferences, it can be assumed that it is new knowledge and valuable information. It is also important to have a patronage of international or national institutions, particularly of prestigious scientific societies. Their authority reinforces the position of the journal.

References


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27. www.imacsss.com (the website of IMACSSS, Dec. 2013)
Instytucjonalizacja obszaru martial arts science: wyspecjalizowane periodyki naukowe

Słowa kluczowe: socjologia nauki, naukometria, sztuki walki, czasopisma naukowe

Streszczenie
Naukową perspektywę dla tego stadium stanowią socjometria i socjologia nauki. Powstawanie nowych czasopism dla nowych naukowych dyscyplin lub specjalności (jak nauka o sztukach walki - martial arts science) jest szczególnie interesującym przejawem procesu instytucjonalizacji. Celem podjętych tu badań jest opis i wyjaśnienie procesu instytucjonalizacji badań naukowych obszaru sztuk walki i sportów walki. Pytania problemowe postawiono następujące: jakie instytucje tworzą czasopisma naukowe, jakie czasopisma i jak możemy (powinniśmy) je oceniać. Poszukiwania naukowe zrealizowana w skalach narodowej (czasopisma polskie) i międzynarodowej.

Materiał i metoda. Przykładowo, do porównawczej analizy wybrano 12 czasopism z obszaru martial arts science. Dodatkowo porównano oceny punktowe Ministerstwa Nauki i Szkolnictwa Wyższego polskich czasopism o profilu sport, kultura fizyczna i turystyka. Podstawą oceny są tutaj osiągnięcia naukowe w ujęciu jakościowym i ilościowym.


Zapewne publikowanie w dzisiejszym języku nauki (angielski) i w wersji elektronicznej o otwartym dostępie do pełnych tekstów ułatwia wprowadzanie prac do globalnego obiegu naukowego. Komercjalizacja ten dostęp utrudnia – zarówno autorom prac, czytelnikom i instytucjom naukowym. Z drugiej jednak strony powstają czasopisma i instytucje, które dzięki kreatywności swych twórców okazują się lepsze od funkcjonujących wcześniej.

Wśród kryteriów oceny dorobku naukowego warto brać pod uwagę jego zasięg (lokalny czy międzynarodowy). Czyli ważne jest, gdzie dany autor publikuje. Oczywiście język publikacji nie przesądza o wartości imerytorycznej danej pracy, ale ułatwia lub utrudnia dostępność tych treści w skali globalnej. Zaś w ocenie jakości czasopism naukowych ważne jest nie tyle kto w danym periodyku publikuje, tylko co te prace wnoszą do stanu wiedzy. Jeśli są to prace, będące wcześniej referatami plenarnymi na międzynarodowych kongresach i konferencjach naukowych, można sądzić, że jest to wiedza najnowsza i najbardziej wartościowa. Ważny jest też patronat międzynarodowych i krajowych instytucji naukowych, zwłaszcza prestiżowych towarzystw naukowych. Wzmacniają one dany periodyk swym autorytetem.