

Old Studies with New Authors: A Discovery Ending with Retraction

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It is not pleasant to discover and announce a case of mass-scale plagiarism. Quite recently, one of us (A.A.) discovered that three papers of Polish authors [1–3] have been copied and re-published under a different author's name — I. Stanca, affiliated with the Oradea University (Romania) and, in one case, also with the Trinity College (Dublin, Ireland). Short search led to the discovery of as many as 12 fraudulent texts re-published in the form of 16 independent papers (four among twelve have been published twice). One among sixteen was identified only provisionally, because of difficulties in accessing a local journal, the identification being thus based on its unambiguous title. Essentially, the papers were copied entirely or copied with some specific (minor) changes, but in some cases, parts of other papers were inserted. According to our search, there exist also several multi-authored papers where the above-mentioned person is on the second or further place on the authors' list: our search does not give any indication that these multiauthored papers are plagiarized. In this Letter, we briefly present the results of our search. Moreover, we mention the possible preventive measures that can be taken against plagiarism.

The method applied here was very simple. Apparently, it is quite easy to produce “the new” from “the old” and this task can be performed in a short time. Let us take an old “forgotten” paper, copy it and replace the author's name with our own. Acknowledgments have to be changed or removed. We may modify the title, but it is not necessary. Within the text, we change the expression “our work” to “someone's work” when referring to earlier papers of original authors. There is a big chance that the product will be accepted for publication, provided that the referees are neither very demanding nor inquiring. This recipe does not guarantee smooth sailing. If the paper is experimental, then it probably has many authors, and frequently multiple experimental techniques are combined to achieve the goal of the original paper. We prefer to be the sole author. However, a reader can easily notice that one author uses multiple experimental techniques, which is not that probable. The second

problem we may encounter is the laboratory equipment: if the equipment applied is commercial and available at any institution, then there is no problem. Otherwise, this obstacle is difficult to surmount — how to explain the access to rare equipment? The next issue is references. The paper is old, so the readers can easily see that the references are obsolete. The last step is to send the as-prepared successive paper to a journal. The produced papers seemed to be good, but after some time we notice that they are so little cited. It is natural for obsolete scientific articles, but we can overcome this by adding self citations. As a result, we have a collection of cited scientific papers.

Producing scientific papers using this method by the above-mentioned person has gone undetected for seven years. We have identified 16 papers produced from 15 sources (14 papers and one webpage). The following journals have published the plagiarized papers: 1. *Modern Physics Letters B*, 2. *Revista de Tehnologii Neconventionale (Nonconventional Technologies Review)*, 3. *Romanian Journal of Physics*, 4. *Proceedings of the Romanian Academy, Series A*, 5. *Romanian Reports in Physics*, 6. *Analele Universitatii din Oradea, Fascicula Fizica*, 7. *Annals of West University of Timisoara*.

The 16 plagiarized papers have been written according to the above recipe. For all but one the time distance to the original was quite large, 5 to 15 years, which, together with the rather local character of the journals suggests that this activity served the purpose of fulfilling bureaucratic requirements rather than presenting “new” discoveries. Some original papers have been copied without great care and without having been read as indicated by errors immediately exposing the fraud, and showing that the referees (if any) did not go through them carefully. For example, one of copied papers describes a synchrotron in Dublin: such facilities exist in several countries, only-this particular one has been “moved” from Hamburg.

The fact that two almost identical plagiaries were pub-

lished in the same journal (within a time difference of several years) suggests that the acceptance procedures were not very rigorous. The obvious observation that the acknowledgments found in the fraudulent papers are meaningless is also worth noting.

The harmed journals list includes: *Superconductor Science and Technology*, *Surface and Coatings Technology*, *Thin Solid films*, *Physica C*, *Technical Physics*, *Review of Scientific Instruments*, *Superconductivity*, *Acta Physica Polonica A*; some original papers come from conference proceedings which are not listed here. All considered plagiarisms have many “previous” authors (in total, 50 people have been harmed by this activity). They come from ten countries. There are (only) several co-authors at the headings of the plagiarisms, We have grounds to believe that the co-authors have not been informed about the way the papers were prepared.

The number of harmed universities and institutes is eighteen: three institutions from USA (Ohio Univ. Athens; Univ. South Alabama, Mobile; University of Alabama in Huntsville), three from the Russian Federation (Russian Academy of Sciences and Russian Electrotechnical University, both from St. Petersburg; Institute of Microstructure Physics of RAS, Nizhni Novgorod), three from France (Université d’Orleans; Université Paris VI, and Université Paris VII), two from Poland (Institute of Physics PAS; Warsaw University of Technology), two from Japan (Nanoelectronics Institute, Tsukuba; Yamagata University), two from Ukraine (Institute of Surface Chemistry; NPO “Saturn”, both from Kiev), one from Italy (ITC, Povo, Trento), one from South Korea (Yonsei University, Seoul) and one from Germany (Darmstadt University of Technology, Darmstadt).

Short time after the discovery, we were informed by the authorities of the Oradea University about an investigation of the incident and their decision to retract all fraudulent papers, so there is no need to focus on the details of the case. It seems more interesting to learn what can be done to discourage potential plagiarists from their copying and to help journals detect plagiarized scientific work before publishing. Plagiarism is an old phenomenon: certainly, it is (technically) easier to rewrite someone’s work or to present someone’s results as one’s own than to write one’s own paper. As an example, in the domain of biomedical papers the level of plagiarism has been reported to reach 1.4% of all publications (see Ref. [4], for some other evaluation see Ref. [5]). Examples of plagiarism and of retractions in eminent journals can be found in Refs. [6, 7], the well known recent ones being those discovered in East Asia [8, 9]. The copy/paste method used at a small or moderate scale is not a good practice either (even if accompanied with citation). Let us give two examples found: (i) a single abstract has served, with small amendments, for four papers (or rather two pairs of papers) published by two different groups from the same university [10–13]; (ii) two characteristic printing errors (“Kronecher delta” instead of “Kronecker delta” and “stain” instead of “strain”) have been commit-

ted in Ref. [10] when presenting a theory described by someone else [14], then these errors propagated to other articles [15, 16, 12, 13, 17], mostly due to the copy/paste method used by the same person and by another group for description of theoretical background of Ref. [10].

The phenomenon of plagiarism has some interesting features. For example, it has been observed that respected scientists continue their plagiarism after its discovery [18]. A research by Budd et al. [19] has demonstrated that even after their retraction, the fraudulent papers are cited. Undoubtedly, in eliminating plagiarism the role of editors and referees is of key importance (for a more profound discussion see Refs. [20–22]). Astonishingly, a study of Wager et al. [23] shows that editors do not consider plagiarism as a serious phenomenon. There exist a lot of anti-spam and anti-virus software. Should not the journal editors treat the anti-plagiarism software as others do with anti-virus and anti-spam programs? Moreover, some simple features of plagiarism can be identified early on during reading—they may sound off the alarm at the level of refereeing.

Internet access to abstracts and full texts of scientific publications provides a strong weapon against plagiarism, because of the opportunities for text search and analysis (examples of suitable programs are mentioned in literature [24–26] and available on the market (such as CrossCheck or Viper). Crystallographic journals openly inform the potential authors about anti-plagiarism means applied [27, 28]. It is worth noting that international competitions in writing anti-plagiarism software are organized (in 2010 it was won by a Romanian scientist [29]). If the very recent postulate that experimental data become an integral part of the publication [30] is realized, additional possibilities of verification will arise for a meaningful part of publications, leading to increasing opportunities of eliminating plagiarism at early stages of manuscript analysis.

The present findings provide one more argument against the evaluation of scientists’ work on the basis of the quantity of their publications or, as argued by Kotov [31], on the basis of any other simple number. Instead, the evaluation should be based on the quality of the publication: evaluations involving the journal impact factor and/or citation number are certainly better. However, some weak points remain. How to include books/textbooks which do not have any impact factor ascribed? How to filter negative citations? A step towards these solutions has been postulated [8] and, as far as we know, at least partly realized, for example, in the Peoples’ Republic of China [32].

In summary, in this Letter we describe, a serious academic fraud, and, on these grounds, briefly discuss some possible ways of improving the evaluation procedures that could lead to better filtering of submitted manuscripts against plagiarism. We argue that journal and book editors should consider using the available means in order to eliminate plagiarism at the stage of submission of manuscripts. The observation that con-

ditions are less favorable for plagiarism, when the scientist's career depends on the quality rather than the quantity of his scientific output, may indicate how best to fight against the phenomenon of plagiarism by administrative means in future. Less instances of plagiarism should hopefully instill more confidence in science at a time when the media pay much more attention to a single case of plagiarism than to a valuable scientific discovery.

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