
From early on in their careers, researchers of all fields become familiarized with the *peer review* of their manuscripts. This is an important mechanism that, in a nut shell, prescribes that scientific papers must be evaluated by members of the scientific community.

With respect to scientific publications in general, peer reviewing started with the prestigious *Philosophical Transactions of the Royal Society*, one of the first scientific journals which was founded in London in 1665 and still being published. At its inception, the Society's Council determined that "[the *Philosophical Transactions*] ...be licensed ...being first reviewed by some members of the same"¹. Such mechanism became the essence of the current peer review system so much proclaimed by most main stream journals.

Before the emergence of the first journals, the diffusion of scientific knowledge was slow and limited, often based on the exchange of letters, reports and/or personal publications. The advent of journals brought important changes to the information system in science, as it not only allowed for the access of new ideas and discoveries to a much broader public, but it also ensured a minimum of quality to the published works. This happened because manuscripts had to undergo peer reviewing by members of the institutions responsible for their publication.

It is interesting to note that, in its beginning, many societies responsible for the publication of journals (e.g., the *Academie Française* and the *Royal Society*) and their editors in particular, had to, literally, reproduce all experiments in order to "authenticate" them, before authorizing their publication in an attempt to ensure their "veracity"^{2,3}. Today, with the annual processing of thousands of manuscripts submitted to what we could call "world system of scientific journals", imagine if it would be possible to routinely check every detail of a paper, reproduce experiments and statistical analysis?

At present, peer review basically consists of a system of triangulation between editors, reviewers, and authors aiming at minimally ensuring originality and, to a certain extent, authenticity of the work to be published. In the case of *Reports in Public Health*, for instance, all manuscripts are reviewed by at least two

referee. This takes place without authors and reviewers knowing each other's identity, like in a double-blind system. For journals and authors alike, this mechanism has many advantages as it allows for the final verification of methodology, indication of bibliographic references, and parts of the paper to be clarified. In order for the system to operate, it is of paramount importance that the editorial board be integrated by renown specialists who are also authors themselves.

Many critical analyses on peer reviewing has been made available. They call attention to some serious problems, thus contributing to the improvement of the system^{4,5,6}. For instance, some studies have highlighted the possible influence of the author's institutional affiliation in the chance of a paper being accepted for publication and to the relatively low agreement between reviews written for the same manuscript^{7,8}.

There are no doubts concerning the many problems with peer reviewing. Notwithstanding, this mechanism is still the most widely used in the provisioning of technical assistance to editors in the evaluation of manuscripts submitted for publication. For its improvement, it is important that editors and reviewers agree in some central guidelines for the evaluation of manuscripts: its contribution to the discipline, originality, and appropriateness of the research design. On the part of the journal, it should be encouraged the submission of the originals to a larger number of reviewers (many journals already work with up to five reviewers *per* article) in an attempt to minimize the impact of subjectivity and personal preferences upon the final decision concerning the acceptance of a paper. We hope that a broader discussion on the system of scientific publications starts out in Brazil in order to improve the quality of national journals.

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