## **EDITORIAL**

Stephen M. Rao Editor-in-Chief Journal of the International Neuropsychological Society

With this issue, I have had the distinct pleasure of serving as the Editor-in-Chief of the Journal of the International Neuropsychological Society (JINS) for the past 6 years. During this time period, several important trends have emerged that reflect a greater openness in the way science is conducted and reported in scientific journals. With this editorial, I would like to announce changes to the journal that reflect these important trends. With one exception (the addition of an Innovation Statement), all changes are voluntary from the standpoint of the author. JINS is simply providing the author with increased options to enable compliance with open science best practices. Most of the changes are not new and have been adopted for several years by other journals. The changes will become effective with the publication of this issue and will be reflected in updated Instructions for Contributors. In the following, I summarize these changes and provide links to provide a more in-depth discussion of the issues than can be provided in this editorial.

Open Science Badges. In 2013, the nonprofit Center for Open Science (COS) was founded to "increase openness, integrity, and reproducibility of scientific research." The fundamental elements of the open science initiative are to increase transparency by sharing data and research materials and by preregistering studies. The idea of data and materials sharing was initially spawned by taxpayer funded granting agencies, which mandated such sharing by investigators with larger grants. The understanding is that since taxpayers have funded the research, there is an obligation to share data and materials with the larger scientific community to leverage scientific discovery. Highly successful examples of data sharing are the Alzheimer's Disease Neuroimaging Initiative (ADNI) and the Human Connectome Project. Data sharing can also identify inadvertent errors in data analysis and prevent scientific misconduct.

Preregistration of studies is not new to scientists conducting clinical trials. The www.clinicaltrials.gov website stores information pertaining to scientific hypotheses, basic descriptions of interventions, and identifies primary and secondary outcome measures to test the efficacy of an intervention. Most importantly, such information is deposited before data collection. During the publication phase, authors are held accountable to report analyses from their primary outcome measures. This does not preclude publication of findings derived from secondary outcome measures, but authors are

obliged to indicate that the results are based on an exploratory analysis. The open science movement has encouraged the expansion of preregistration to all empirically based research, large and small.

To incentivize author compliance with data sharing, materials sharing, and preregistration, the COS has created a voluntary system in which open science badges are awarded to authors and are published with the journal article along with links to the data and materials being shared or the location of the preregistration summary. Authors can apply for one, two or three badges. The idea of awarding badges may at first blush seem silly, but there is solid evidence that journals that award badges have found systematic increases in the rate of data sharing (Rowhani-Farid, Allen, & Barnett, 2017). The COS, and other organizations, provides free database services to authors to enable compliance with these three objectives. Specific details on how to apply for badges are contained in the *JINS* Instructions for Contributors.

Replication Studies. Replication of key results is necessary for any scientific field to progress, yet it is rarely practiced because replication is not considered to be innovative by authors, reviewers and editors. I would like to encourage the publication of replication studies under certain circumstances. To be considered for publication in JINS, the target article selected for replication must have produced paradigmbreaking results that have influenced the course of the field of neuropsychology. Prior to conducting the replication investigation, the authors are encouraged to file a replication plan with the JINS Editor-in-Chief. If the replication article is submitted to JINS, every effort will be made to publish the paper regardless of the outcomes, as long as the methods are in close alignment with those of the target article.

Prepublication. A recent and growing trend in the scientific community is for authors to post versions of nearly completed scientific papers on websites to obtain feedback from the scientific community prior to submission to a peer-reviewed journal. In the past, such a practice would preclude the publication in a scientific journal since the articles would already be considered "published." Most journals, including JINS, have reconsidered this practice and with rare exceptions consider such manuscripts for publication.

Innovation Statement. Beginning with all manuscripts submitted in 2020, authors will be required to produce

2 Editorial

a 2–3 sentence summary that describes the innovation that their article contributes to the scientific literature. Such a statement must be written in language that a lay audience would understand. Specific details for submission are provided in the *JINS* Instructions for Contributors.

Open Access. Traditionally, the costs of publishing a scientific journal are born by the journal publisher, which in turn recoups publishing expenses by charging subscription fees to individuals and libraries, thereby restricting access to content. In the last decade, there has been a growing movement for open access in scientific publishing in which journal content can be viewed without restrictions imposed by subscription fees. Financially, this is accomplished by shifting the costs from the publisher to the author, with a typical article costing approximately \$3000 USD. JINS is published by Cambridge University Press and publishes articles in a hybrid format with most papers published in the traditional manner, but authors are provided the option to publish their papers in an open access format. The JINS hybrid model has been in effect for some time, but only a small number of authors have been willing or able to choose the open access option. To encourage open access publishing, INS members can publish their papers with the open access option for a discounted fee that is noted in the JINS Instructions for Contributors.

Publons. The bedrock of the peer review system is dependent on scientists being willing to take the time from their busy schedules to read and critique papers submitted to journals. Over the years, it has become increasingly difficult to obtain high-quality reviews. In part, this may be due to the simple fact that reviewers are rarely if ever given credit for the time they spend in this practice. Publons is a commercial entity that keeps track of reviewers' peer review activity across a very wide range of journals. There is no charge to

reviewers. Beginning in January, 2020, Publons will be fully integrated with the *JINS* peer review system. At the end of reviewing a manuscript, reviewers will be provided an option to record their reviewing activity into the Publons database.

Social Media. To increase the visibility of articles published in JINS on social media, the publications committee of the International Neuropsychological Society will be selecting one or two articles from each issue to create "visual abstracts." Such abstracts provide an illustrated summary of an article's key findings in the format of a single PowerPoint slide. Members of the committee will reach out to authors to assist in the content and design of the abstracts. Once finalized and approved through an abbreviated peer review process, these abstracts will be released through various social media outlets. The committee is also exploring other methods to increase the presence of JINS on social media.

It is my hope that these changes will align *JINS* with important new trends in scientific publishing without causing undo burden for authors wishing to submit their highest quality papers to the journal. Of course, there are many reasons to submit your best work to *JINS*. In addition to having respectable review times from initial submission to decision (4–5 weeks) and from acceptance to online publication (2 months), *JINS* currently has one of the strongest Impact Factors (3.098) in the field of neuropsychology.

## Reference

Rowhani-Farid, A., Allen, M., & Barnett, A.G. (2017). What incentives increase data sharing in health and medical research? A systematic review. *Research Integrity and Peer Review*, 2, 4. doi: 10.1186/s41073-017-0028-9