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PRESS RELEASE | PARIS | MARCH 21, 2017

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## Gender discrimination: science is no exception

**Gender discrimination can be found in the most unexpected fields. An international team, involving Demian Battaglia, a CNRS researcher at the Institut de neurosciences des systèmes, as well as researchers from Yale and the Max Planck Institute (Germany), has just demonstrated that women are underrepresented in the peer review of scientific publications. This research is published in the journal *eLife* on March 21, 2017.**

Gender discriminations are a well-known phenomenon. Scientific research is not immune to these issues, particularly academic publications, one of the cornerstones of scientific work. To be validated, an article must be approved by independent researchers, who are supposed to be selected on the basis of their skills rather than their gender. Yet an international team has found that women scientists—already in a minority in their field—are underselected for peer review. This is due to the natural and unconscious tendency of publishers, most of whom are men, to select a reviewer of their own sex.

Demian Battaglia, a CNRS researcher at the Institut de neurosciences des systèmes (Inserm/AMU), alongside Markus Helmer and his collaborators, has worked on the journals of the publishing house *Frontiers*, the only one to make the names of its peer reviewers public. Based on a series of 41,000 publications in various fields (science, health, engineering, the social sciences), published between 2007 and 2015, and a dataset of 43,000 reviewers, they observed that women are underrepresented in various scientific domains, as well as being less often asked to act as peer reviewers than one would statistically expect.

The reason is simple: publishers, whether men or women, display a tendency, known as homophily, to select reviewers of their own sex. This is common practice both in terms of friendly and professional relationships. But it manifests itself differently between the sexes. This behavior is widespread among men (more than 50% of individuals), and limited—albeit practiced to the extreme—among women (around 10% of women publishers are very strongly homophilic).

According to the authors, the result of this process is that even where a policy of parity is in effect, and women and men are equally represented in theory, this homophilic bias may persist. The real issue at stake, it seems, is to change behaviors. The authors of the study therefore put forward proposals, including the use of tables that would be displayed when publishing proofs, showing sexism-related figures.

The team now hopes to repeat its analyses in a few years' time in order to see whether its recommendations have been acted upon.



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### **Bibliography**

**Gender bias in scholarly peer review.** Markus Helmer, Manuel Schottdorf, Andreas Neef, Demian Battaglia. *eLife*, March 21, 2017. <http://dx.doi.org/10.7554/eLife.21718>

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