

## Challenging homophily and male bias in academic research and publishing

Tuesday 8 March

#BreakTheBias



anni miller

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Gender equality and representation within and beyond the University of the Highlands and Islands

A book in celebration of International Women's Day 2021 (Edited by Alexandra Walker)

#### IWD2021

Distancing the (privileged) male from the machine: supporting gender balance and representation through acts of allyship in academic processes and practices

A male perspective perspective from a male



https://omp.uhi.ac.uk/uhim/catalog/book/iwd2021

### Patriarchy Printing Publishing



Photo by <u>Thomas Kelley</u> on Unsplash <u>https://unsplash.com/photos/hHL08lF7lkc</u>

### It started at the beginning



Hypatia

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Abstract

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#### Women Philosophers in the Ancient Greek World: Donning the Mantle

Published online by Cambridge University Press: 11 March 2020

#### Kathleen Wider



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#### Abstract

Get access

This paper argues that there were women involved with philosophy on a fairly constant basis throughout Greek antiquity. It does so by tracing the lives and where extant the writings of these women. However, since the sources, both ancient and modern, from which we derive our knowledge about these women are so sexist and easily distort our view of these women and their accomplishments, the paper also discusses the manner in which their histories come down to us as well as the histories themselves. It discusses in detail the following women: the Pythagorean women philosophers of the 6th and 5th centuries B.C., Aspasia and Diotima of the 5th century B.C., Arete, Hipparchia, Pamphile and the women Epicureans—all from the 4th century B.C. the five logician daughters of a famous Stoic philosopher of the 3rd century B.C., and finally Hypatia who lived in the 4th century A.D.

# Women and the cultural politics of printing

Stevenson, J. (2009) 'Women and the cultural politics of printing'. The Seventeenth Century, 24 (2), 205-237.

Numbers of publications by women authors in 16<sup>th</sup> century Europe

- 20 publications Scotland and England
- 20 Spain
- 23 Germany and Netherlands
- 32 France
- 221 Italy

### Prevailing practices

#### Biological Conservation 251 (2020) 108767



Pervasive gender bias in editorial boards of biodiversity conservation journals

Check for updates

BIOLOGICAL

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Photo by <u>Romain V</u> on Unsplash <u>https://unsplash.com/photos/nMDp15T4IJ0</u>

### Review bias(es)

FUNDING

# Gender bias tilts success of grant applications

But it goes away when reviewers focus on the science.

#### BY GIORGIA GUGLIELMI

www.omen lose out when reviewers assess the researcher, rather than the research, according to a study on gender bias. But training reviewers to recognize unconscious biases seems to correct this imbalance, despite previous work suggesting otherwise.

The findings were first posted in December on the bioRxiv<sup>1</sup> preprint server and are currently in review at a journal. They came out of a 2014 decision by the Canadian Institutes of Health Research (CIHR) to phase out conventional grant programmes, in which reviewers evaluated both the science and the investigator. Instead, the CIHR started one programme that focused its evaluation on the applicants and another that focused mostly on their research. This created a natural experiment that allowed the scientists to analyse the outcomes of nearly 24,000 grant applications and to test whether funding differences were due to the quality of the applicants' research or to factors related to the applicant, such as gender.

Past studies have looked at gender inequalities in grant funding, but most examined grant programmes that didn't separate their application pool as the CIHR programmes did. Some also didn't consider other factors, such as whether research fields had different ratios of male to female scientists<sup>2</sup>. The new analysis, which took into account applicants' research areas and age — a proxy for career stage allowed the study authors to draw "more robust conclusions", says Holly Witteman, a healthinformatics researcher at Laval University in Quebec City, Canada, who led the study.

Witteman and her colleagues calculated that, of all the applications submitted to CIHR grant programmes between 2011 and 2016, 15.8% were likely to be successful. And in the conventional grant programmes, the success rate for male applicants was 0.9% higher than the rate for female applicants. When the team analysed the CIHR grant programme that

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### Citation, authoring and co-authoring bias

#### **Original Article**

Men Set Their Own Cites High: Gender and Self-citation across Fields and over Time Socius: Sociological Research for a Dynamic World Volume 3: 1–22 © The Author(s) 2017 Reprints and permissions: sagepub.com/journalsPermissions.nav DOI: 10.1177/2378023117738903 srd.sagepub.com

Molly M. King<sup>1</sup>, Carl T. Bergstrom<sup>2</sup>, Shelley J. Correll<sup>1</sup>, Jennifer Jacquet<sup>3</sup>, and Jevin D. West<sup>2</sup>

#### Abstract

How common is self-citation in scholarly publication, and does the practice vary by gender? Using novel methods and a data set of 1.5 million research papers in the scholarly database JSTOR published between 1779 and 2011, the authors find that nearly 10 percent of references are self-citations by a paper's authors. The findings also show that between 1779 and 2011, men cited their own papers 56 percent more than did women. In the last two decades of data, men self-cited 70 percent more than women. Women are also more than 10 percentage points more likely than men to not cite their own previous work at all. While these patterns could result from differences in the number of papers that men and women authors have published rather than gender-specific patterns of self-citation behavior, this gender gap in self-citation rates has remained stable over the last 50 years, despite increased representation of women in academia. The authors break down self-citation patterns by academic field and number of authors and comment on potential mechanisms behind these observations. These findings have important implications for scholarly visibility and cumulative advantage in academic careers.

Keywords authorship, citations, gender, careers, networks, sociology of science © 2020 The Authors. The Bulletin of the Ecological Society of America, published by Wiley Periodicals, Inc., on behalf of the Ecological Society of America. This is an open access article under the terms of the Creative Commons Attribution License, which permits use, distribution and reproduction in any medium, provided the original work is properly cited.

#### Effects of Inferred Gender on Patterns of Co-Authorship in Ecology and Evolutionary Biology Publications

Dachin N. Frances<sup>1,2,4,†</sup>, Connor R. Fitzpatrick<sup>1,2,4</sup>, Janet Koprivnikar<sup>3</sup>, and Shannon J. McCauley<sup>1,2</sup> <sup>1</sup>Department of Biology, University of Toronto Mississauga, 3359 Mississauga Road, Mississauga, Ontario L5L 1C6, Canada <sup>2</sup>Department of Ecology and Evolutionary Biology, University of Toronto, 25 Willcocks Street, Toronto, Ontario M5S 3B2, Canada <sup>3</sup>Department of Chemistry and Biology, Ryerson University, 350 Victoria Street, Toronto, Ontario M5B 2K3, Canada <sup>4</sup>Present address: Department of Biology, University of North Carolina at Chapel Hill, 120 South Road, Chapel Hill, NC 27599, USA

### Distortion Disproportion Disenfranchisement

PROFESSIONAL CAMPUS JOBS EVENTS RANKINGS STUDENT

#### Male-dominated editorial boards 'hold back psychology'

Audit of top psychology and neuroscience titles highlights relative lack of female editors and US dominance that may be harming science, say authors

February 24, 2022

#### Jack Grove

WORLD UNIVERSITY RANKINGS

in

 $\mathbf{\Sigma}$ 

2

#### Twitter: @jgro the

Male-dominated editorial boards are still the norm at most top psychology journals despite women representing the majority of academics within the discipline, a study has found.

Of the 50 most-cited journals in psychology, three-quarters (76 per cent) had editorial boards where men outnumbered women – with the proportion of female editors dropping below 10 per cent at one publication, US and UK researchers found.



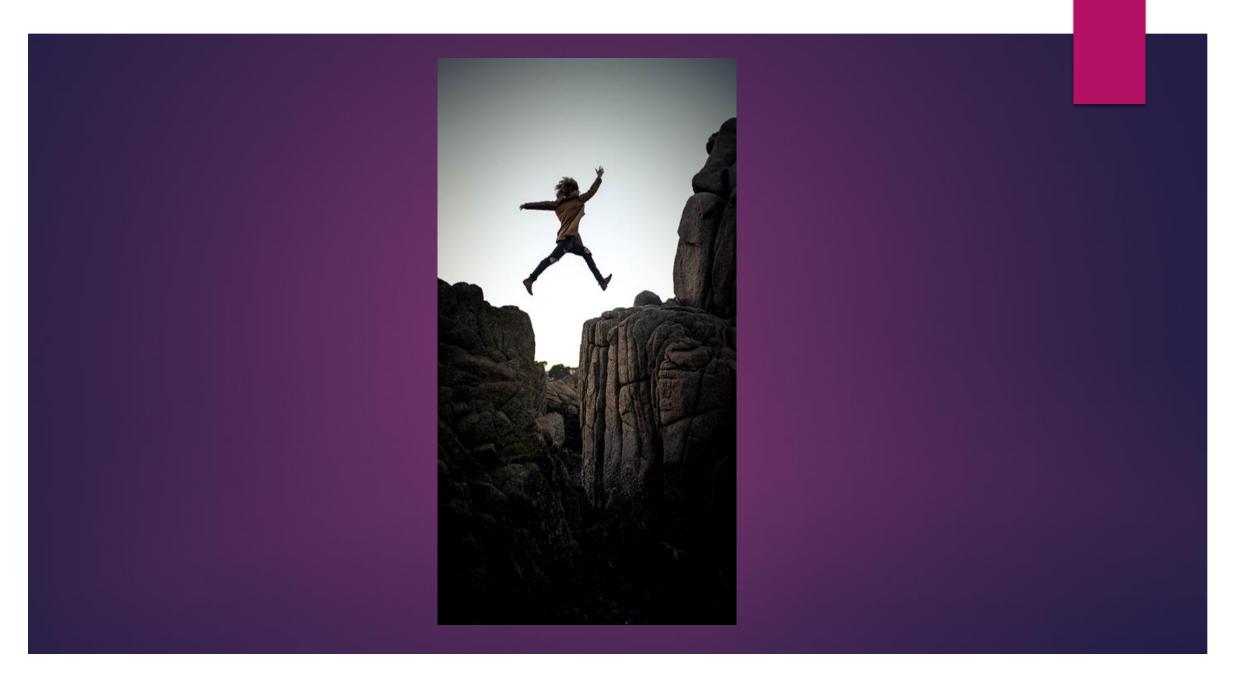


Photo by Sammie Vasquez on Unsplash. Openly licensed. https://unsplash.com/photos/Zdf3zn5XXtU

### Gender Differences in First and Corresponding Authorship in Public Health Research Submissions During the COVID-19 Pandemic

Michelle L. Bell, PhD, and Kelvin C. Fong, PhD

စီနဲ့ See also Pinho-Gomes, p. 15.

**Objectives.** To investigate the rate of manuscript submission to a major peer-reviewed journal (*American Journal of Public Health*) by gender, comparing periods before and during the pandemic.

**Methods.** We used data from January 1 to May 12, 2020, and defined the start of the pandemic period by country as the first date of 50 or more confirmed cases. We used an algorithm to classify gender based on first name and nation of origin. We included authors whose gender could be estimated with a certainty of at least 95%.

**Results.** Submission rates were higher overall during the pandemic compared with before. Increases were higher for submissions from men compared with women (41.9% vs 10.9% for corresponding author). For the United States, submissions increased 23.8% for men but only 7.9% for women. Women authored 29.4% of COVID-19–related articles.

**Conclusions.** Our findings suggest that the pandemic exacerbated gender imbalances in scientific research. (*Am J Public Health*. 2021;111:159–163. https://doi.org/10.2105/AJPH.2020.305975)

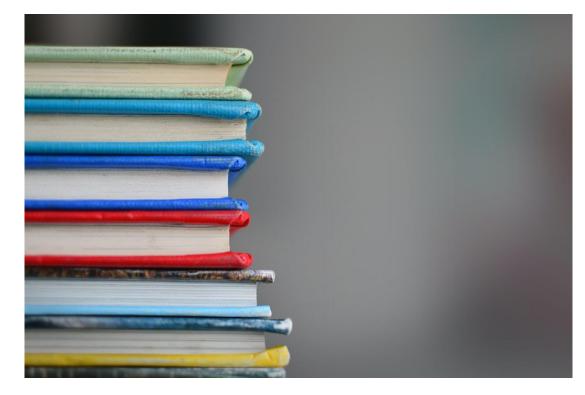
AJPH January 2021, Vol 111, No.

### Pragmatic responses to breaking male homophily



Photo by <u>Tingey Injury Law Firm</u> on Unsplash <u>https://unsplash.com/photos/DZpc4UY8ZtY</u>

### For editorial and review boards



- Balance in editorial board membership
- Rotation of editorial leadership roles
- Balance and representation in reviewer pools and in reviewer recruitment
- CPD in inclusive editorial practices
- Inclusive submissions/acceptance policies
- Direct action e.g. through Special Issues

Photo by <u>Kimberly Farmer</u> on Unsplash <u>https://unsplash.com/photos/IUaaKCUANVI</u>

### For senior and experienced academics



- Construction of balanced academic/professional teams
- Scaffolding engagement in research leadership
- Sharing of research leadership
- Providing equitable flexible conditions to engage in scholarly and research activities
- Additional support for early career/part-time colleagues
- Seek to influence pathways for career development

Photo by Cade Prior on Pexels https://www.pexels.com/photo/focused-young-sportswoman-climbing-huge-cliff-in-ravine-4009355/



### For research supervisors/leads

- Construction of teams
- Sharing research leadership
- Equity of opportunities to engage
- Supporting criticality of sources
- Accept acknowledgement over seeking or expecting co-authorship

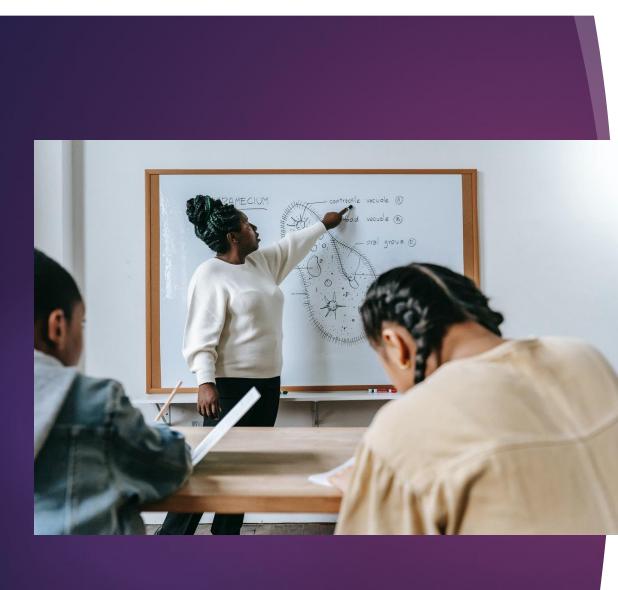
Photo by Photo by <u>Wilhelm Gunkel</u> on Unsplash <u>https://unsplash.com/photos/L04Kczg\_Jvs</u>



### Mentoring and peer support

- To increase engagement in scholarship and research
- Distribute and 'pass forward' experience and expertise
- Foster balanced collaborations
- Support engagement in peer review and editorial work

Photo by <u>Retha Ferguson</u> on Pexels https://www.pexels.com/photo/woman-writing-in-paper-3810788/



#### For those who teach

- Consider who and what we cite
- Ensure balance and representation in readings and subject materials
- Ensure balance in group work and leadership of group working
- Enable and scaffold student engagement in research and equal opportunities to lead research tasks

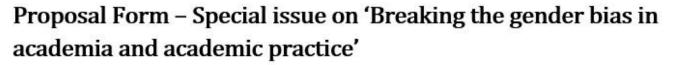
Photo by <u>Katerina Holmes</u> on Pexels <u>https://www.pexels.com/photo/black-</u> woman-explaining-biology-to-kids-5905932/

### Take the issues to our male colleagues



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#### JOURNAL OF Perspectives in Applied Academic Practice



The next special issue of the Journal of Perspectives in Applied Academic Practice (JPAAP) will be published in early autumn 2022. The focus of this issue is on 'Breaking the gender bias in academia and academic practice', and we are producing the issue to tie in with the theme for International Women's Day 2022 which is #BreakTheBias.

www.jpaap.napier.ac.uk

In aligning the above theme with the contexts of academia, academic practice, and academic institutions, we are welcoming proposals for submissions that consider gender equality within the work of our colleges and universities through a lens of **#BreakTheBias**, and which is focused on creating learning and teaching, professional development, student support and research environments that are:

- Free of gender bias, stereotypes, and discrimination.
- Gender diverse, equitable, and inclusive.
- And where difference is valued and celebrated.

#### https://jpaap.napier.ac.uk/index.php/JPAAP/announcement/view/45

We all have a role to play in challenging male bias and enabling more equitable engagement in academic research and publishing, but there is a challenge and need to help those in positions of privilege and leadership (especially male colleagues) to recognise where they are complicit and can take direct action.