Bias in publishing

equality 4 success

Elizabeth Wynn

She/her

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Gender bias in publishing

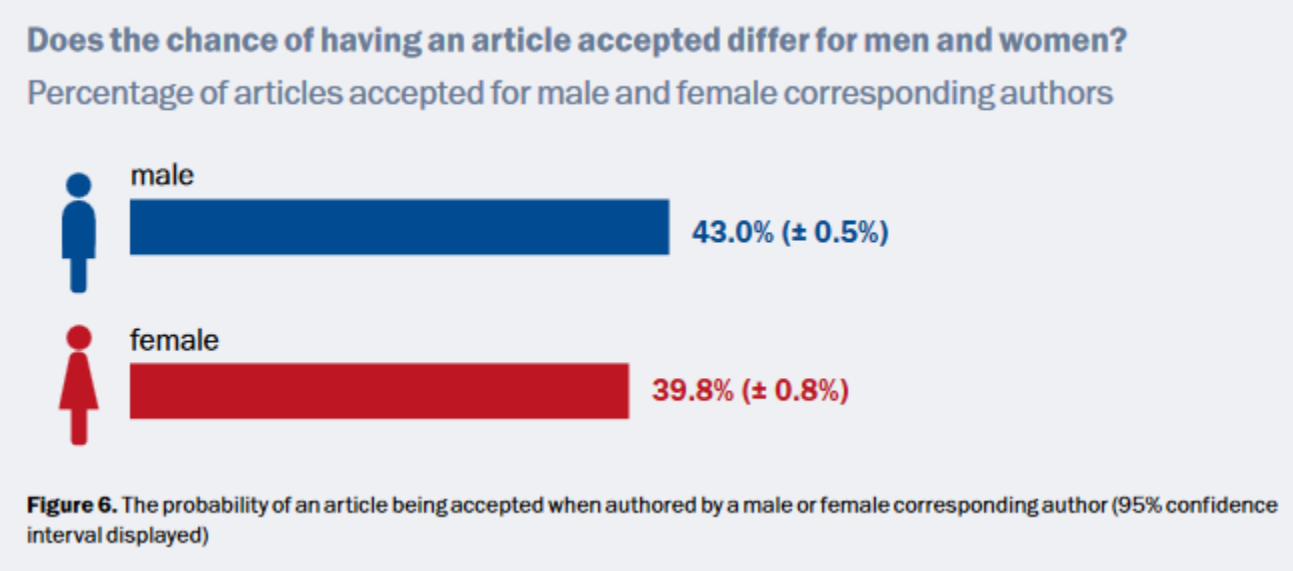

Figure 6. The probability of an article being accepted when authored by a male or female corresponding author (95% confidence interval displayed)

Diversity and Inclusion in Peer Review
IOP Publishing

- eLife: acceptance rates for female corresponding authors were lower than for men
- Royal Society of Chemistry: papers with female corresponding authors have a lower chance of being accepted
- Elsevier: women publish fewer papers on average than men

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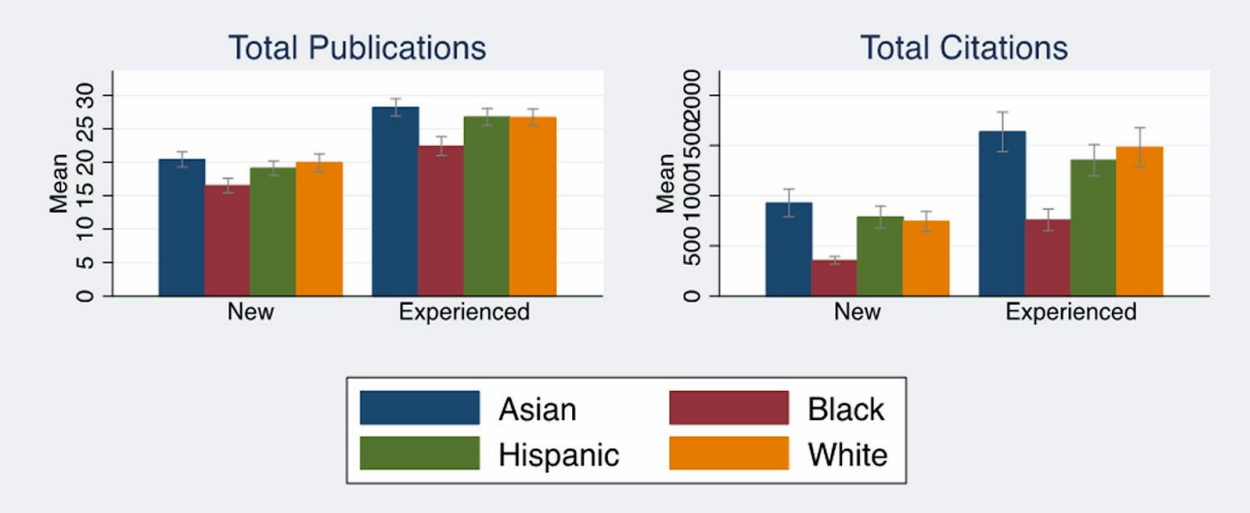
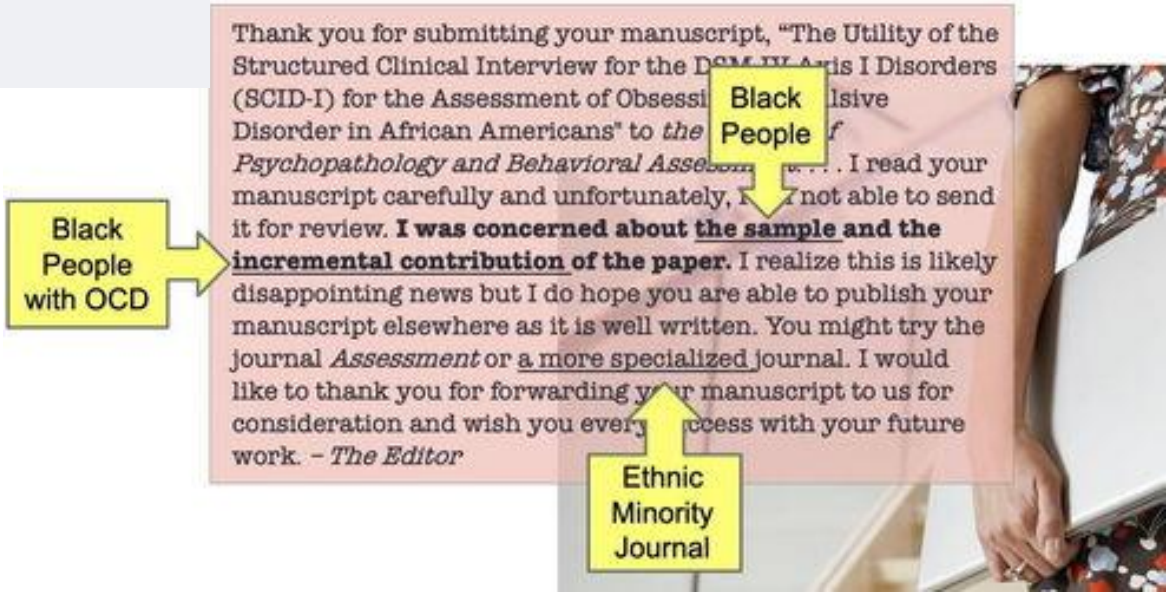
Ethnic/racial bias in publishing



Ginther et al 2018



Dr Monnica T Williams

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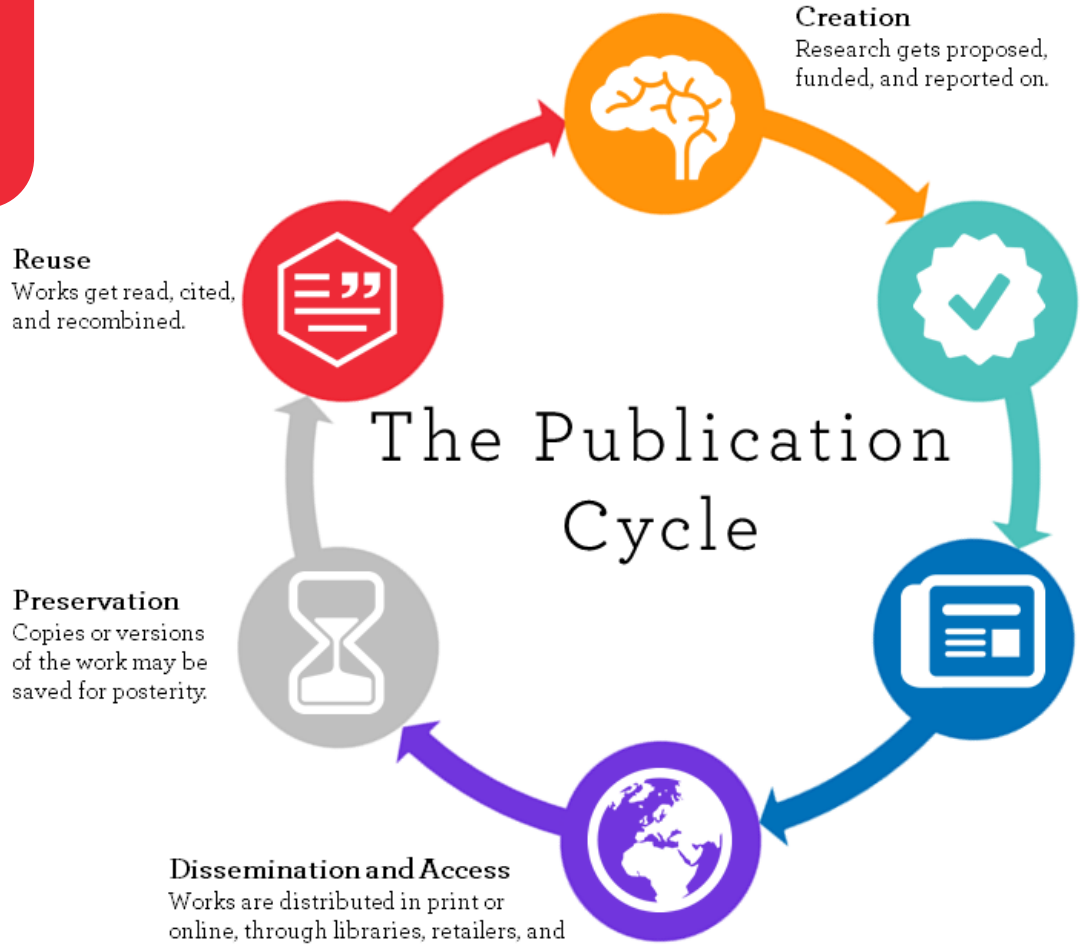
Publishing process

Male author papers are cited more, especially by men, who also cite themselves more

Women and ethnic minorities are underrepresented at PI level, receive less funding on average



Women are underrepresented as reviewers; reviewers favour authors of the same gender

Open access publishing mitigates gender based citation bias

Papers with female corresponding authors have a lower chance of being accepted

Peer review

- Editors are more likely to appoint reviewers of the same gender, and assign reviewers papers written by authors of the same gender
  - Homophilic tendencies are widespread among male editors
  - A small number of strongly homophilic female editors exist, with most other female editors showing only minimal baseline homophily
- Men were more successful than women when the reviewers were all male, but have similar success rates to women when there was a mixed review panel
  - The acceptance rate for female authors was not lower for all-male reviewer teams compared with mixed reviewer teams
- Papers are more likely to be accepted if at least one of the reviewers was from the same country as the corresponding author

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Peer review

Examples of unprofessional peer reviews from survey respondents:

- The author's status as a trans person has distorted his view of sex beyond the biological reality.
- Despite being a woman, the PI was trained by several leading men in the field and is thus likely adequately prepared to lead the proposed research.
- This is obviously written by a group from a lower standardized institution based on the quality of work.
- The author's last name sounds Spanish. I didn't read the manuscript because I'm sure it's full of bad English.

(Silbiger and Stubler, 2019)

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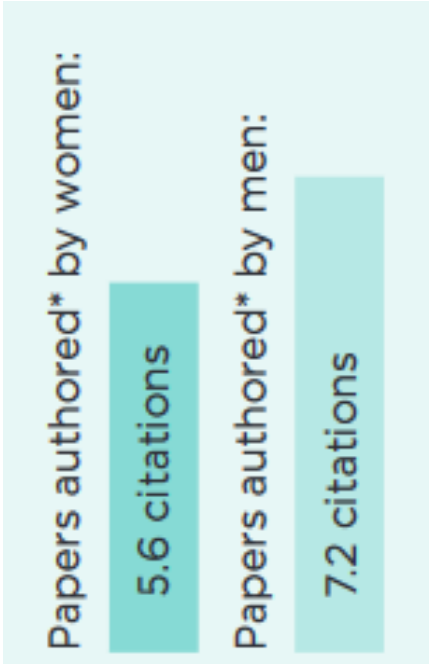
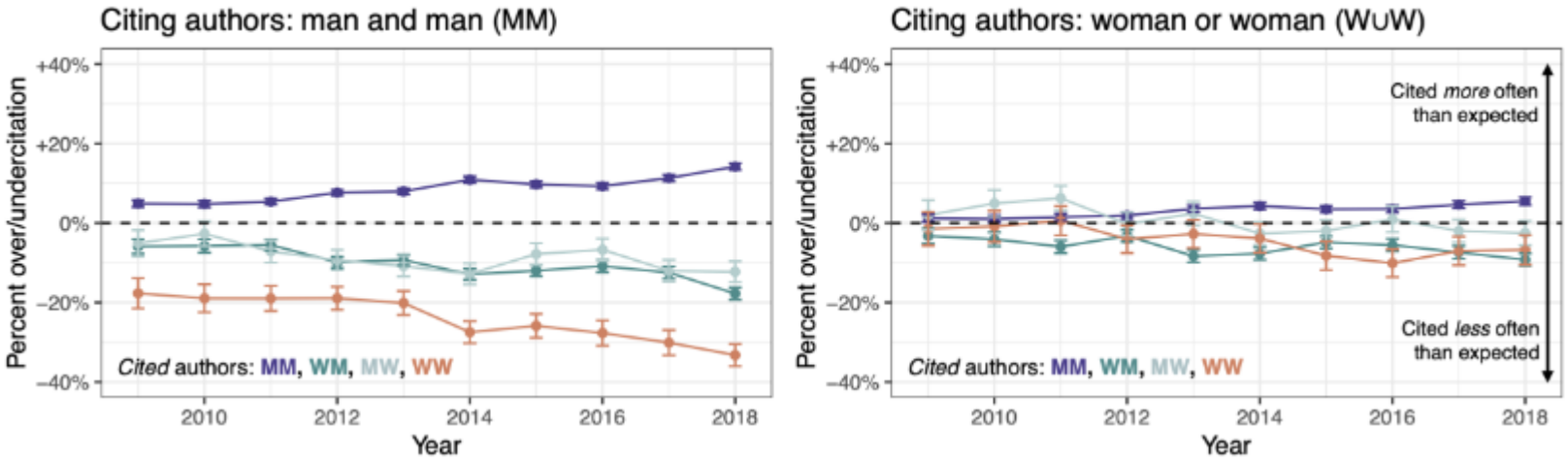
Citation



Dworkin et al 2020



Going forwards

- Journals
  - Increase diversity on editorial boards
  - Provide resources and training for reviewers to avoid bias
  - Avoid non-diverse reviewer panels

- Scientists
  - As a reviewer, ask about the diversity of the review group
  - Be mindful of who you cite

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Any questions?

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Further reading

- Is publishing in the chemical sciences gender biased?
- Gender bias in scholarly peer review, Helmer et al 2017
- Diversity and Inclusion in Peer Review at IOP Publishing
- Gender in the Global Research Landscape
- Publications as predictors of racial and ethnic differences in NIH research awards, Ginther et al 2018
- Racism in Academic Publishing
- Author-Reviewer Homophily in Peer Review, Murray et al 2019
- Unprofessional peer reviews disproportionately harm underrepresented groups in STEM, Silbiger and Stubler 2019
- The extent and drivers of gender imbalance in neuroscience reference lists, Dworkin et al 2020
- Men Set Their Own Cites High: Gender and Self-citation across Fields and over Time, King et al 2017

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