



Challenging male homophily and bias in academic research and practice

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ABSTRACT

This opinion piece focuses on the nature of male homophily and bias in academic research, publishing and practice, and how homophilic practices in writing, reviewing and publishing academic research disproportionately advantage the academic work and voices of male academics while disenfranchising those of women within 'the academy' and academic institutions. After first briefly considering the nature of male homophily and relevant historical dimensions, attention then turns to the practices that prevail today including the stark realities presented by recent research. Pragmatic responses to tackling male homophily and bias in academic work, cultures and practices are then considered, in areas including the work of journals and their editorial boards, research leadership and supervision, academic leadership and in learning and teaching.

Keywords: homophily, male bias, gender representation, academia, pragmatic approaches and interventions

Male homophily in academic research and publishing

The phenomena of homophily, whereby individuals tend to associate or seek associations and bonding with those in whom they can identify the same traits, characteristics, or beliefs – that is, who they can perceive as 'the similar other' – is problematic and discriminatory at scale when in the form of male homophily and associated gender biases in academic research and practice. As Liévano-Latorrea et al. (2020) observe, in drawing upon their research within their own field and a range of previous studies across different disciplines, male homophily commonly and widely manifests itself through practices that include: the majority of review invitations being made by men to other men; in the higher acceptance of papers with male leaders or first authors; and when women-led papers are reviewed more harshly and receive lower acceptance rates than papers that have male lead authors.

Inevitably, it has arguably always been thus. In their work exploring women philosophers in the Ancient Greek world, Wider (1986) observes how despite the constant engagement of women in philosophy throughout Greek antiquity, due to the then prevailing view that engagement in philosophical endeavor was largely the reserve of men, the work and histories of all but a few women philosophers have become known to the wider populace. As Wider (1986, p. 21) observes, this has also been resultant from and compounded by ancient and modern sources that are so gender-biased in their nature that they lessen and "easily distort our view of these women and their accomplishments". We may also look more widely at the work of male philosophers such as Socrates, Plato and Isocrates within which there is an emphasis placed on education for the development of citizens and society, but within which the citizen was almost universally presented as, or assumed to be, male.

With the development of printing technology, patriarchy prevailed in the publishing and dissemination of thought and knowledge. While the invention of the Gutenberg printing press in the 1440's revolutionised the mass distribution of knowledge that we continue to have to this day, the Gutenberg press and subsequent mass printing technologies remained largely in the hands of privileged males. In European countries the publishing of works by women authors did noticeably begin to increase in the sixteenth century, but only marginally. Stevenson (2009) observes that between 1500 and 1600 there were a total of twenty writings by English and Scottish women printed, twenty in Spain, twenty-three in Germany and the Netherlands, thirty-two in France, and a more substantial two-hundred and twenty-one printed publications by women writers in Italy.

The practices that prevail today

Of the male homophilic trends and practices that are prevalent in academia and academic work today, recent research presents a number of stark realities. Returning to the aforementioned work of Liévano-Latorrea et al. (2020), their investigation into the gender composition of the editorial boards for thirty-one leading journals in their own field of biological conservation found that of the 1251 editors examined, only 394 (28.7 per cent) were women. Furthermore, they found that for every five editors-in-chief, only one was a woman. Similar patterns are observable in other discipline areas, with Grove (2022) reporting that of the fifty leading journals in psychology, three quarters have editorial boards where men outnumber women.

The effects of gender or inferred gender with respect to male bias and privilege can also be observed in relation to the co-authoring of academic research, with the study by Frances et al. (2020) finding that within the field of biology, male researchers in the last author position were more likely to co-author with other males, whereas women first and last authors were more likely to

Challenging male homophily and bias in academic research and practice

publish with men. Furthermore they found that the proportion of women co-authors on papers remained well below the proportion of PhDs awarded to women in biology over the same time period for their research.

With respect to citation practices within published academic research, different forms of homophilic citation bias also serve to privilege the male voice. In an expansive study which examined citations in 1.5 million research papers published between 1779 and 2011, King et al. (2017) found that men self-cited their own papers 56% more than women did, rising to 70% more since around the year 2000. Women were also found to be over 10% more likely not to cite their own previous research. It was also the case that male authors tended to cite other male authors more frequently than women authors. This is a well-established general trend which disproportionately validates research and knowledge generated by males (Smyth, 2021).

There is also an established gender bias when it comes to the peer review of applications for research funding, with women principal investigators being less successful in securing funding than male principal investigators in instances where funding review processes focus on the researcher rather than the research that is actually being proposed (Guglielmi, 2018).

The COVID-19 pandemic has only served to widen gender differences with respect to engagement in academic work through exacerbating gender imbalances in childcare, care of relatives and domestic responsibilities (Walker, 2021). Bell and Fong (2021) investigated gender differences in first authorship in public health research submissions during the pandemic. While this was an area within which there were higher submission rates overall, reflecting the increase in COVID related research as a response to the pandemic, increases in first authorship were substantially higher for men (41.9% first author) compared to women (10.9% first author), with women authoring only 29.4% of COVID related articles overall. Walker (2021) elaborates on the wider impacts of COVID on women in academia, including the general trend downwards for women academics publishing during the pandemic and the increased precarity for women early career researchers, while also noting the increased opportunities to engage in specific aspects of professional practice that many women in academia reported when activities moved online.

In addition to the aforementioned citation bias that advantages the male voice and the visibility of research by males in academic research, the cumulative effect of male homophily in the practices explored above, with respect to gender balance and representation in academic and related work in our universities, is that women academics and researchers are disenfranchised, disadvantaged and disempowered in their status, visibility and opportunities in comparison to men within 'the academy'. This extends too to how the work and voices of women are represented, or not, within the curriculum and learning and teaching practices within the university, as part of a culture that embraces, or not, gender and other forms of equality and representation.

Pragmatic responses to breaking male homophily

In striving for academic, research and university institutional cultures that seek to counter gender bias and redress the disadvantaging and disenfranchisement of women colleagues, their work and their voices, there are a number of pragmatic approaches and interventions - across different areas of activity by those with different responsibilities and leadership roles - which we can and should seek to implement more widely than is currently the case.

With respect to editors and the editorial boards of journals, directed action needs to encompass recruitment and membership policies that ensure greater gender balance and representation in editorial board membership. It could also extend to set periods of rotation of editorial leadership roles, and non-discriminatory succession pathways for editorial board members to, for example, progress to associate editor then lead editor. Similarly, policies that support more balanced representation in reviewer pools and reviewer recruitment can only help mitigate against male homophily in the reviewing process. More inclusive submission and acceptance policies that are designed to ensure greater gender representation in the work that journals publish, and which could extend to Special Issues dedicated to women academics and women early career researchers, or which are focused on addressing gender bias within the field in question, would also provide positive forms of redress.

For research leads and research supervisors, there is a need to consider gender balance in the construction of research teams and the distribution of lead responsibilities within projects. Equity of opportunities to engage in and contribute to research, particularly for early career women academics or women colleagues who may be part-time, is vital. So too is ensuring a criticality in the sources that are drawn upon and cited in research activities and outputs, especially given the emphasis placed on citation as an indicator of research quality and the standing of the searcher. To this end, those supervising research students or post-doctoral positions (both generally, and with respect to women early career researchers) may want to consider the positive support that could be provided by accepting acknowledgement within publications over seeking or expecting co-authorship.

There are of course different disciplinary traditions and practices associated with authorship and also co-authorship attribution that need to be acknowledged. However, we may do well to recognise the extent to which experienced academics can empower and amplify the voices of their newer or less experienced colleagues (whether or not they are women) by ceding any claim for lead authorship in a piece of work that has been done fairly equally with a colleague who is currently less well established, or by allowing PhD students the sole authorship claim on the papers produced from their work.

In a similar vein to those who lead research activity, those who are in leadership roles for academic and also professional teams can be considering: how best to scaffold and support increased engagement in academic leadership for women colleagues; ways to provide equitable and flexible conditions to engage in teaching, scholarship and other professional activities; and how to seek to provide and also influence pathways for career development that are not disadvantageous.

Challenging male homophily and bias in academic research and practice

For those who teach, we can consider who and what we cite, ensure gender and other forms of balance and representation in readings and subject materials, ensure balance in group work and student leadership of group working, and enable and scaffold student engagement in research-focused activities and equal opportunities to lead research tasks at all levels of study.

Concluding thought

Within academia and our academic institutions, we all have a role to play in challenging male homophily and bias in academic research and publishing to ensure the equitable representation, amplification and celebration of women researchers and academics, and their work and knowledge. This extends to how the histories, voices and work of women are embedded and represented within in the curriculum and within in learning and teaching practices.

In seeking to achieve this, there is a challenge and need to help those who are in positions of privilege and leadership to recognise the direct actions that they can take. This sits in parallel to the broader challenge of working with (especially male) colleagues to help them see how and where they may be complicit in sustaining and re-replicating male bias.

This opinion piece draws upon and seeks to offer an extended consideration of gender bias and homophily in academic work, including how this might be tackled, that was first explored within a contribution (Smyth, 2021) to the edited book by Alexandra Walker titled 'Gender equality, representation and balance within and beyond the University of the Highlands and Islands: A book in celebration of International Women's Day 2021' (Walker, 2021).

Biography

Keith Smyth is Dean of Learning and Teaching and Professor of Pedagogy at the University of the Highlands and Islands, and one of the founding editors of the Journal of Perspectives in Applied Academic Practice. Keith is on Twitter @smythkrs and blogs sporadically at <http://3eeducation.org/>

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