

The Editor's Role in Avoiding Gender Bias

Corley-Ann Parker

In an old riddle about a doctor and a car crash, a man and his son get in a car accident and are rushed to the hospital in critical condition. The boy requires surgery and is immediately sent to the operating room. However, the surgeon looks at the boy and shouts, "I can't operate on him, he's my son!" How could this be? If you can't think of the answer, don't be discouraged. All but one respondent in a 2017 BBC video¹ on gender bias missed the correct answer: that the surgeon is the boy's mother. The responses ranged from "Perhaps the boy was adopted" to "It must be the father's ghost!"

This video does more than provide some interesting content; it highlights the prevalence of gender bias in society. Despite advances in recent decades, substantial gender bias remains in science and medicine. Science editors can help combat such bias by avoiding biased language in their publications and by helping ensure appropriate gender balances in their workplaces and publications.

A Good Start

The intention to avoid gender bias in editing is present but efforts could be improved. For example, many style manuals including the newest editions of the *Chicago Style Manual* and *AMA Manual of Style* have statements and recommendations about avoiding gender-biased language.^{2,3} The Council of Science Editor's style guide, *Scientific Style and Format*,⁴ currently includes statements and recommendations about avoiding gender-biased language like making sure not to automatically use the male referent and only mentioning gender differences when relevant. These statements in style guidelines that editors often refer to increase awareness of gender biases and can help open dialogue on the subject.

Addressing gender biases, however, goes beyond making formal statements. Nicole Neuman, the editor for *Trends in Biomedical Sciences*, stated in a piece in *Cell Crosstalk*⁵ that recent studies "suggest there are layers of bias not yet peeled away." The focus has shifted from explicit gender biases, like biased language, that can be consciously self-corrected towards implicit, persistent biases like unequal authorship opportunities for women.

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Increasing the Representation

A major step to combatting implicit gender biases involves a significant shift in representation on all levels. Those in charge of hiring editors and selecting reviewers should look at current gender distributions in their workplace and make sure they are achieving equal representation. In January 2017, *Science* published an editorial titled "Looking Inward at Gender Issues"⁶ that acknowledge the gender imbalance at their publication. Their inward evaluation revealed that women held only 17% of the senior author positions and 25% of the Junior author positions in their published papers. Editor-in-chief Jeremy Berg published an update to this analysis in 2019⁷ showing a slight increase in female authors, especially in the life sciences. In this update, Berg states that "with these data and tools in place, we are now well positioned for further analyses and actions that address gender disparities." Taking an inward look at the gender distributions both in whom publications are hiring or from whom publications are accepting articles can help bring up any previously unknown gender biases in publications. By looking at the data, editors-in-chief can do their part to monitor and address any implicit gender biases present at their publication.

Another significant source of implicit gender bias beyond the scope of formal journals that editors can address is the lack of diverse sources in news media and similar publications. Heather Catchpole,⁸ head of content at Refraction Media, an Australian publishing service, has noticed a lack of diversity in sources and those people whom many authors consider experts. According to Catchpole, "featuring predominantly white male sources means fewer role models are female, from wider cultural backgrounds, or differently abled people." Catchpole stated that Refraction Media's publications promote diversity by "actively seeking out interviews, images, and stories from women in STEM and promoting inclusivity that broadly reflects the population demographics of the audiences we're communicating to." As editors, noticing a lack of diverse sources and recommending female sources to journalists can help address this implicit gender bias. As Catchpole puts it, "as science communicators, we need to rethink what we mean when we seek an expert opinion."

This shift in thinking also means women in STEM should be available as experts. Emily Kumler⁹ had experienced problems with this when working on stories about technology. "I was trying to always include a few female sources, and I was routinely told by female experts that there was a more

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qualified male source I should really talk to," she said, "and no man ever deferred an interview request, let alone suggested there was a more knowledgeable female expert I'd be better off talking to." There has been a movement in science for women to own their expertise, and this should be reflected in the sources and experts that are selected.

Maintaining Momentum

Editors have often been considered the gatekeepers of information, and a major responsibility across all levels is to empower and maintain accountability. Science and technology fields are actively becoming more diverse, and these fields no longer belong only to white men in white lab coats. Science editors, on every level, can play their part to help ensure that science communication can effectively reflect this shift in diversity.

Acknowledgments

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References and Links

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Gender and Sex

From the *Scientific Style and Format: The CSE Manual for Authors, Editors, and Publishers*, 8th ed. Chapter 7, Section 7.5.1.

When both men and women are the subject of the text, make this clear by referring to both; do not assume that a male referent is adequate.

His analysis ignored the economic problems of ordinary men and women.

not His analysis ignored the economic problems of the man in the street.

Scientific discoveries in the last century have advanced the knowledge of humankind.

Scientific discoveries in the last century have advanced the knowledge of all men and women.

"Gender" was long applied mainly in reference to the grammatical categories of masculine, feminine, and neuter. In recent years its use has been extended to refer to the social, economic, and historical categories man and woman, which are based mainly, though not entirely, on the sex of individuals, with "sex" referring to the biological categories.

For more from the CSE *Scientific Style and Format Manual*, go to <https://www.scientificstyleandformat.org/>