Gender (im)balance in citation practices in cognitive neuroscience

Jacqueline M. Fulvio1

Ileri Akinnola2

Bradley R. Postle1

1University of Wisconsin–Madison

2University of Maryland – Baltimore County

It has recently been reported that in five broad-scope neuroscience journals, citation rates for papers first- and/or last-authored by women are lower than would be expected if gender was not a factor in citation choices (Dworkin et al., 2020). Given the important implications that such underrepresentation may have on the careers of women researchers, it is important to determine whether this same trend is true in subdisciplines of the field, where interventions might be more targeted. Here, we report the results of an extension of the analyses carried out by Dworkin et al. (2020) to citation patterns in the *Journal of Cognitive Neuroscience* (*JoCN*). Specifically, we asked whether the degree to which the categorical authorship-gender balance of articles cited in *JoCN* from 2009-2020 reflected the gender balance of the journal’s authorship during that time frame. First, we determined that the gender balance of *JoCN* authorship was stable during the time frame considered, with women-led authorship (i.e., with a woman in the first and/or last author position (“W$∪$W”)) considerably more prevalent in *JoCN* compared to the five broad-scope neuroscience journals considered previously (59.2% W$∪$W at *JoCN* vs. 46.7% W$∪$W at the “Big 5”). Next, we determined that the reference sections of papers published in *JoCN* during this time span included W$∪$W papers at a level considerably lower than the 59.2% that would be expected if gender were not a factor in making citation choices. Furthermore, this pattern of citation imbalances is characteristic of the reference sections in all author-gender groups (i.e., “MM,” “MW,” “WM,” and “WW”), thereby implicating systemic factors. These results contribute to the growing body of evidence that intentional action is needed to address inequities in the way that we carry out and communicate our science.