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Women's Stronger In-group Favoritism Underlies Their Censorship of Science: Review of Bleske-Rechek et al. (2024)

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In an examination of the social factors contributing to motivations to censor science, Bleske-Rechek and colleagues (2024) experimentally manipulated the sex of a professor ostensibly discussing findings on sex differences, which likely contribute to women's underrepresentation in STEM fields. Across two samples (MTurk and American undergraduates), female participants were less receptive and more censorious towards a male than female professor discussing these empirically supported sex differences. Although male participants in their community sample were less receptive and more censorious towards a female (versus male) professor, this pattern did not replicate in the undergraduate sample. Thus, it appears that the most consistent finding across their two samples was women's stronger opposition to a male than female professor discussing controversial findings related to sex differences.

There is much to commend about this investigation. The authors provided participants with an ostensible handout listing the results of numerous scientific investigations uncovering sex differences relevant to social and occupational outcomes, with the relevant reference for each finding. This method extends the extant literature, which has largely examined hypothetical scientific findings. With hypothetical findings, it becomes unclear whether the patterns proclaimed to be true cohere with participants' own observations. By relying on empirical evidence, Bleske-Rechek and colleagues' (2024) investigation provides insight onto how lay individuals (and possibly scientists) respond to patterns that are not only documented by scientists, but are also potentially observable in their everyday lives.

Although Bleske-Rechek and colleagues provided strong arguments for the controversial nature of sex differences, the theoretical framework underlying hypotheses 2 and 3—women's greater censoriousness, and especially towards male messengers—was underdeveloped. The authors contend that women's skepticism of male-favoring scientific findings might be due to their greater "harm-aversion and broad definitions of harm". They further posit that women would be more skeptical of this information coming from a man because as members of a protected group,

women should be more skeptical of an outgroup member's biases, in line with the prioritization of protected group members' firsthand ("lived") experiences. Although I suspect there is some truth to those arguments, I believe there is a more parsimonious explanation, which can account for women's greater overall censoriousness towards these findings, and towards a male messenger in particular: female in-group bias.

Across various measures and contexts, women show greater favoritism towards their gender than do men. When measured with the implicit association test (IAT), women espouse more favorable implicit attitudes towards other women than do men towards their same-sex peers (Nosek & Banaji, 2001; Richeson & Ambady, 2001; Rudman & Goodwin, 2004). This bias also manifests in explicit attitudes; compared to men, women evaluated their gender more favorably across 16 nations (Glick et al., 2004).

These patterns not only manifest as attitudes, but also within helping motivations. In lab experiments, female participants more readily supported interventions that help women but harm men, whereas male participants did not show a gender bias in intervention support (Graso et al., 2023). In an economic experiment, female participants redistributed money towards low-earning women more than men, whereas male participants showed no such bias (Cappelen et al., 2019). Similar patterns appear in crowdfunding, such that female investors preferentially support the campaigns of other women (Greenberg & Mollick, 2017; Venturelli et al., 2019; Vismara et al., 2017). Altogether, this work suggests that compared to men, women not only possess more favorable attitudes towards, but also stronger motivations to help members of their own gender.

Turning to the findings of Bleske-Rechek and colleagues, female participants might more strongly oppose the documented sex differences because they portray women's underrepresentation in STEM careers as a consequence of their own traits and motivations, which might undermine efforts to promote women's advancement in these fields. That is, the findings might be taken as insinuating that women do not need further assistance or championship because the disparities in STEM outcomes result from dispositions or preferences rather than discrimination. If women are biased to perceive women favorably and to help women, then such findings might be intolerable because they 1.) portray women as lacking socially value traits and/or 2.) undermine incentives to help women. Future work might test these two possibilities directly to examine which most strongly contributes to women's distaste for these types of findings.

Women's stronger in-group favoritism can also be leveraged towards understanding female participants' greater censorship of the male than female professor. If women hold more favorable attitudes towards other women, these could manifest as greater tolerance of a woman promoting contentious findings. However, because the authors compared responses toward a female versus male professor, we cannot discern whether disparities are driven by a pro-female bias or anti-male bias. Across cultures, compared to men, women show stronger hostile sexism and lower benevolent sexism towards men (Glick et al., 2004). Thus, not only do women exhibit biases in favor of women, they also exhibit them against men. Future research might consider comparing to a gender-neutral condition, such as a computer algorithm presenting these findings, to better discern whether favorable attitudes towards women or distaste for men more strongly drive female participants' censorship motivations.

I suspect that a pro-female bias is more strongly driving women's responses. Across human

history, most social groups practiced patrilocality (Burton et al., 1996; Copeland et al., 2011; Szécsényi-Nagy et al., 2015). Thus, many of our female ancestors left their families upon marriage to reside with their husbands' families. Geary (2002) argued that under such conditions, ancestral women likely formed and maintained same-sex relationships using reciprocal altruism or mutualism. Absent shared genetic interest with allies, female ancestors needed to actively nurture their cooperative bonds. The necessity of fostering sustained cooperative partnerships might have led ancestral women to prefer same-sex alliance partners who were interpersonally loyal because these individuals would be less likely to abandon the alliance, reveal one's damaging secrets, or harm one's children (Reynolds, 2022). And indeed, numerous investigations support that women prioritize interpersonal loyalty in their same-sex friendships more than do men (Hall, 2011; Reynolds & Palmer-Hague, 2022; Vigil, 2007).

I suspect that a pro-female bias is one cue women use in assessing which same-sex peers would be loyal. On average, women who displayed a pro-female bias might be more committed friends or might be more inclined to advocate for struggling friends (e.g., those who were starving, being abused). That is, women who signaled their loyal to other women might have been preferentially selected as other women's same-sex allies. If women preferred same-sex peers who advertised their loyalty to women generally, then over time, such social pressures may have favored a stronger female in-group bias. Indeed, evidence suggests that women prefer and trust other women who have more female friends (girls' girls) rather than those with more male friends (guys' girls; Bradshaw et al., 2022). These patterns lend some tentative support that women's social decisions favor same-sex friends with pro-female biases, but further work is needed to more straightforwardly test this theorizing.

Beyond deepening the theoretical framework, I also have some suggestions for how Bleske-Rechek and colleagues might strengthen their analyses. First, I am not sure that the receptivity composites are justifiable. It would be interesting to see assessments of the messenger's and message's credibility analyzed separately, as these are distinct concepts. At minimum, the messenger's intent should not be combined with the other items because advocating for women's rights is distinct from assessments of credibility. Relatedly, whether participants label the information as sexist, as going against their values, offensive, or potentially causing harm does not seem conceptually similar to their assessments of credibility. Instead, these measures seem to be capturing distinct concepts: harmfulness and rigor. I believe the investigation would be more informative if the authors broke up these dependent variables along face-valid conceptual lines.

Second, I am not sure why the authors chose to enter the individual difference variables simultaneously in multiple regression models. This can only tell us which variables were significant after accounting for the other variables, thereby making the results highly contingent upon which other predictors are entered in the models. Moreover, as the paper stands now, it is a little confusing to discern the implications of a predictor accounting for more variance in one condition versus another. I think it could be more informative and comprehensible to enter the two predictors (words can harm, political leaning) as both main effects and interactions with condition in separate models to test whether they influence the DVs in the predicted manner. If the authors take my advice above, they will also have more dependent variables to report, so perhaps a table would make reporting these individual difference analyses clearer.

Last, I have a few minor suggestions for improvement. It would be helpful if the authors could include effect sizes for the sex differences when testing hypothesis 1. The abstract should more

clearly describe the primary findings, as this will increase the likelihood the article is cited and cited accurately.

Overall, this is an important investigation of motivations to censor science. Without an ability to document and discuss empirical findings, society cannot diagnose or address the true sources of its ills. Perhaps by understanding the mechanisms underlying scientific censorship, we can work to promote evenhanded acceptance of empirical reality. The work by Bleske-Rechek and colleagues is a valuable step in that direction.

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