



REPLY TO CHAN ET AL.:

Better delineating female and male sexual orientation

J. Jabbour^{a,1} and J. Michael Bailey^a

Chan et al. (1) use survey data to examine the association between self-reported sexual orientations (Kinsey scores) and online dating activity in bisexual men and women. They show that Kinsey scores predict similar patterns of contact behavior for bisexual individuals of both sexes and consequently question our position that the expression of male and female bisexuality shows some fundamental differences (2).

Although their data are interesting, Chan et al. have misunderstood scientific findings on female sexual orientation that are especially relevant to our study. Most importantly, genital, neural, and subjective arousal patterns [and other physiological correlates (3)] are not highly correlated with women's selfreported sexual orientations (4, 5). Indeed, women who identify as heterosexual tend to show similar degrees of genital, neural, and subjective arousal to male and female sexual stimuli—a pattern that can be described as either indifferent or bisexual. Women who identify as homosexual also produce genital and neural arousal patterns that are less specific compared with men's patterns. Outside of laboratory settings, women are more likely to report nonexclusive sexual and romantic attractions than men and are also more likely than men to shift sexual identities (6). This suggests that latent bisexual attraction and arousal (separate from self-identified bisexual identity) may be more common among women, and that there may be developmental differences between the sexes that affect the category specificity of sexual orientation (7). We had such findings in mind when we previously wrote that there may be "important differences in the expression of male and female sexual orientation, perhaps especially bisexuality" (2).

Chan et al. (1) found no statistically significant difference in online contact gender preferences between self-identified bisexual men and women. We are concerned that their categorical treatment of contact behavior may be misleading. For example, their approach does not distinguish a person who contacts 3 men and 3 women from one who contacts 49 men and 1 woman. Consequently, their definition of bisexual contact seems overbroad. Regardless, their findings contradict neither the rationale nor findings of our study (2). Nor can their findings—which are focused only on bisexual individuals be relevant to sex differences in the development and expression of sexual orientation across the entire Kinsey scale. We studied male bisexuality relative to other male sexual orientation. Furthermore, we focused on men precisely because the aforementioned sex differences would render a similar study of women relatively uninformative.

Despite our disagreement with their argument, we agree with Chan et al. (1) that integrating behavioral data about sexual behavior patterns into studies of sexual orientation is valuable. Their data are interesting, and we look forward to reading more about this research. However, we remain unconvinced of its relevance to our study (2).

- 1 H. F. Chan, B. Torgler, S. Whyte, Exploring sexual orientation beyond genital arousal: Using large-scale online dating contact behavior to study male and female bisexuality. *Proc. Natl. Acad. Sci. U.S.A.*, 10.1073/pnas.2026320118 (2021).
- 2 J. Jabbour et al., Robust evidence for bisexual orientation among men. Proc. Natl. Acad. Sci. U.S.A. 117, 18369–18377 (2020).
- **3** G. Rieger et al., Sexual arousal: the correspondence of eyes and genitals. *Biol. Psychol.* **104**, 56–64 (2015).
- 4 J. M. Bailey et al., Sexual orientation, controversy, and science. Psychol. Sci. Public Interest 17, 45-101 (2016).
- 5 A. Safron, D. Sylva, V. Klimaj, A. M. Rosenthal, J. M. Bailey, Neural responses to sexual stimuli in heterosexual and homosexual men and women: Men's responses are more specific. Arch. Sex. Behav. 49, 433–445 (2020).
- **6** L. Diamond, Sexual Fluidity: Understanding Women's Love and Desire (Harvard University Press, 2008).
- 7 J. M. Bailey, "What is sexual orientation and do women have one?" in Contemporary Perspectives on Lesbian, Gay, and Bisexual Identities, D. Hope, Ed. (Springer, 2009), pp. 43–63.

Author contributions: J.J. and J.M.B. wrote the paper.

The authors declare no competing interest.

Published under the PNAS license.

Published March 15, 2021.

^aDepartment of Psychology, Northwestern University, Evanston, IL 60208

¹To whom correspondence may be addressed. Email: jeremy.jabbour@u.northwestern.edu.