Combating Bisexual Erasure: The Correspondence of Implicit and Explicit Sexual Identity

Online Supplement

Study 1

After describing stimuli used for the IAT, we describe measures that were included in the study as part of the third author’s undergraduate thesis, but that were not considered pertinent to the research questions addressed in the present article. Next, we present supplementary analyses for the dependent variables reported in the main text and correlational analyses for the supplementary measures.

Sexual Identity IAT Stimuli

Full stimuli and programming files are at https://osf.io/u68tv/?view_only=2cf4649fdba346b583c1f3f30c72b54.

| FOR WOMEN | Gay | Straight | Self | Other |
|-----------|-----|----------|------|-------|
| gay, homosexual | straight, heterosexual | me, self, I, mine, my | they, them, it, their, other |
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FOR MEN

| Gay            | Straight        | Self            | Other          |
|----------------|-----------------|-----------------|----------------|
| gay, homosexual| straight, heterosexual | me, self, I, mine, my | they, them, it, their, other |

Additional Measures

Because we were interested in whether self-reported sexual orientation corresponded to implicit sexual identity, the implicit attitude measure and the self-report measures described below were not relevant to our primary questions.

Implicit Sexual Attitudes

Using the same procedure as the sexual identity IAT described in the main text, the Gay-Straight Bias IAT (Banse et al., 2001) evaluated people’s implicit attitudes toward gay relative to straight people by examining differences in the amount of time it took participants to classify "pleasant" (e.g., wonderful, joyful) and “unpleasant” words (e.g., horrible, nasty) together with the same “gay” and “straight” images described above. The IAT was scored using the $D$ measure.
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(Greenwald et al., 2003) so that positive values corresponded to more positive attitudes toward gay relative to straight people.

**Group Identification**

Participants who indicated that they preferred to date “exclusively same sex” or “both sexes” completed an LGB-specific measure of group-identification adapted from Leach and colleagues (2008). Participants who indicated that they preferred to date “exclusively opposite sex” completed a straight-specific measure of group identification. They indicated their level of agreement with a series of 14 statements on a 4-point scale, ranging from 1 (*strongly disagree*) to 4 (*strongly agree*). Statements were grouped into 5 subscales of group-identification: (1) **group solidarity** (3 items; \( \alpha = .80 \); e.g., “I feel solidarity with LGB [straight] people”), (2) **group satisfaction** (4 items; \( \alpha = .84 \); e.g., “I think that LGB [straight] people have a lot to be proud of”), (3) **group centrality** (3 items; \( \alpha = .80 \); e.g., “The fact that I am LGB [straight] is an important part of my identity”), (4) **individual self-stereotyping** (2 items; \( \alpha = .93 \); e.g., “I am similar to the average LGB [straight] person”), and (5) **ingroup homogeneity** (2 items; \( \alpha = .85 \); e.g., “LGB [straight] people are very similar to each other”).

**Connectedness to the Gay Community**

Participants responded to seven statements regarding feelings of connectedness to the gay community (adapted from Barrett & Pollack, 2005; e.g., “You feel you’re a part of the LGB community” on a 1 (Disagree Strongly) to 4 (Agree Strongly). We created a mean score (\( \alpha = .91 \)) where higher scores indicated stronger feelings of affiliation with the gay community.

**Stigma Consciousness**

Participants responded to 10 statements from the Stigma Consciousness Questionnaire (Pinel, 1999; e.g., “I almost never think about the fact that I am LGB when I interact with
straight people”) on a 0 (strongly disagree) to 6 (strongly agree) scale. We created a mean score (α = .91) where higher scores indicated higher stigma consciousness. Because these questions do not apply to straight individuals, only participants that indicated that they preferred to date “exclusively same sex” or “both sexes” completed this measure.

**LGB Activism**

Participants indicated their level of agreement with two statements (“I am committed to working for equality for the LGB community,” and “I consider myself an activist on behalf of the LGB community) using a 7-point scale, ranging from 1 (strongly disagree) to 7 (strongly agree). Participants also indicated the extent to which they would like to increase their involvement in LGB activism in the future by indicating their agreement on a 5-point scale (1=strongly disagree, 5=strongly agree) with a single statement (“In the future, I would like to increase my involvement in activities related to LGB rights”). We standardized these items and then created a mean score for LGB activism (α = .80).

**Additional Analyses**

In the analyses below, we first give more details of the cluster analysis described in the main text. Next, we report supplementary ANOVA and ANCOVA analyses for the dependent variables reported in the main text. Finally, we report correlations between implicit identity and the supplementary self-report measures described above.

**Cluster Analysis on Attraction, Behavior, Fantasies, and Identity**

Table S2 shows the frequencies for each cluster separated by participants’ original self-reported sexual orientation category. It is important to note that the cluster analysis is more likely to place bisexual-identified individuals into a cluster inconsistent with their self-identification than straight and gay-identified individuals. One reason for this may be that bisexual individuals
do not have a clear-cut response option on a continuous measure of this nature (with straight and gay/lesbian at the endpoints) because there is no requirement for a bisexual person to be equally attracted to both same and other sex or to engage equally in sexual activity with both same and other sex (i.e., 0 on the -3 to 3 scale). In other words, one could be fully certain of their bisexual identity, while also feeling more attracted to one sex than another sex – this will inevitably lead to more variation in their responses than straight and gay/lesbian individuals. A second reason may be that we included a range of participants from the “bisexual umbrella” (Galupo et al., 2017), such as pansexual and queer, which may contribute to more variability.

Table S2

Results of Cluster Analysis by Self-Reported Sexual Orientation

| Gender | Cluster  | Self-Reported Sexual Orientation |
|--------|---------|----------------------------------|
|        |         | Straight | Bisexual | Gay | Total |
| Female | Straight| 78       | 12       | 0   | 90    |
|        | Bisexual| 0        | 26       | 1   | 27    |
|        | Gay     | 6        | 20       | 21  | 47    |
| Male   | Straight| 39       | 2        | 0   | 41    |
|        | Bisexual| 2        | 10       | 1   | 13    |
|        | Gay     | 0        | 10       | 54  | 64    |
Primary Dependent Measures

Convergence Between Implicit and Explicit Measures Controlling for Age and Race.
To determine whether self-identified gay, bisexual, and straight participants differed on implicit sexual identity when controlling for age and race, we conducted a 3 (explicit sexual identity: straight, bisexual, gay) x 2 (gender) x 2 (race: White versus Person of color) ANCOVA. Consistent with results reported in the main text, we found a main effect of explicit sexual identity on implicit sexual identity, $F(2, 278) = 87.92$, $p < .001$. Gay participants implicitly identified as more gay than bisexual participants, $ps < .001$, who in turn identified as more gay than straight participants, $ps < .001$. Gender did not significantly moderate this effect, $F(2, 278) = 1.18$, $p = .31$.

Convergence Between Implicit and Explicit Measures With Restricted Inclusion Criteria for Bisexuality. As explained in the main text, we classified participants as bisexual if they expressed any interest in both the same and opposite sex (e.g., "I believe that I am a 2 on the Kinsey scale. This means I'm straight but have interest in homosexual relations."). If they did not respond to the open-ended item, we classified them on the basis of responses to the sexual identification scale. Specifically, we classified those responding at the extremes of the scale as straight and gay ("exclusively straight" and "exclusively gay", respectively) and everyone in between as bisexual, in line with other research (e.g., Rieger, Chivers, & Bailey, 2005).

In this section, we present the results of an analysis using more restricted inclusion criteria for bisexuality – specifically, we only classified participants as bisexual if they clearly identified as such in the open-ended question. For example, a participant who identified as “Straight, but open to fooling around” was classified as bisexual in the main text, but was instead
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classified as straight in this analysis. This reclassification resulted in a sample of 113 straight, 33 bisexual, and 61 gay participants.

In a 3 (explicit sexual attraction: straight, bisexual, gay) x 2 (gender) ANOVA, consistent with results reported in the main text, we found a main effect of explicit sexual attraction on implicit sexual identity, $F(2, 201) = 117.69, p < .001$. Gay participants implicitly identified as more gay than bisexual participants, $p < .001$, who in turn identified as more gay than straight participants, $p < .001$, in a Tukey-Kramer post hoc comparison test. Gender did not significantly moderate this effect, $F(2, 201) = 2.02, p = .14$.

**Supplementary Dependent Measures**

**Mean Differences in Implicit Sexual Attitudes.** As an exploratory analysis, we also examined whether self-identified gay, bisexual, and straight participants (using our primary measure of explicit sexual identity) differed on implicit sexual attitudes. In a 3 (explicit sexual identity) x 2 (gender) ANOVA, we found a main effect of sexual orientation, $F(2, 248) = 99.59, p < .001$, but it was not moderated by participant gender $F(2, 248) = 0.53, p = .59$. Self-identified gay participants had more positive attitudes toward gay people than did bisexual participants, $p < .001, d = 0.84, 95\% CI [0.27, 0.58]$, who in turn had more positive attitudes toward gay people than did straight participants, $p < .001, d = 1.27, 95\% CI [0.82, 1.10]$, in a Tukey-Kramer post hoc comparison test.

**Relationship Between Implicit Identity and Supplementary Measures.** As reported in Table S1, as participants implicitly identified as more gay, they felt more solidarity with, stronger identification with, and a stronger connection to the LGB community. They also self-stereotyped less and were more interested in activism on behalf of the LGB community.
Table S1

*Bivariate Correlations Between Implicit Sexual Identity and Supplementary Variables*

| Measure                | Sexual Orientation |
|------------------------|--------------------|
|                        | All    | Gay   | Bisexual | Straight |
| 1. Solidarity          | 0.13*  | 0.28* | 0.29**   | -0.13    |
| 2. Satisfaction        | 0.04   | 0.28* | 0.11     | -0.10    |
| 3. Centrality          | 0.28***| 0.19  | 0.35**   | -0.14    |
| 4. Self-stereotyping   | -0.13* | 0.04  | -0.05    | -0.04    |
| 5. Homogeneity         | 0.05   | -0.04 | 0.15     | -0.04    |
| 6. Connectedness       | 0.53***| 0.24* | 0.21     | 0.25**   |
| 7. Stigma Consciousness| 0.15   | 0.03  | 0.34**   | -        |
| 8. Activism            | 0.43***| 0.22  | 0.08     | 0.27**   |

Note. Only participants who preferred to date the same sex responded to the Stigma Consciousness scale. Ns range from 70 to 71 for gay participants, 68 to 105 for bisexual participants, and 112 for straight participants.

*p < .05. **p < .01. ***p < .001.
Study 2

Additional Measures

As pre-registered, we did not analyze the measures below – they were only included as potential exploratory measures.

Attraction, Behavior, Fantasies, and Identity

We used five Kinsey Scales (Kinsey et al., 1948; Miller et al., 2008) as an alternative way of understanding sexual orientation. Participants rated their sexual attraction (“Which sex/es are you sexually attracted to?”), romantic attraction (“Which sex(es) are you romantically attracted to?”), sexual fantasies (“Whether they occur in fantasies, daydreams or in dreams, which sex/es are in your fantasies?”), and sexual behavior (“With whom do you engage in sexual activity?”) on a 7-point scale where 1 = Other sex only, 2 = Other sex mostly, 3 = Other sex somewhat more, 4 = Both sexes equally, 5 = Same sex somewhat more, 6 = Same sex mostly, 7 = Same sex only. They also responded to “How do you label or identify yourself?” on a 7-point scale from 1 = Exclusively straight to 4 = Bisexual to 7 = Exclusively gay/lesbian.

Stigma Consciousness

Participants responded to 10 statements from the Stigma Consciousness Questionnaire (Pinel, 1999) on a 1 (strongly disagree) to 7 (strongly agree) scale. Questions were tailored to participants’ self-reported sexual orientation (e.g., “I almost never think about the fact that I am [bisexual] when I interact with straight people”). We created a mean score where higher scores indicated higher stigma consciousness.