Perceptions of Bisexual Individuals Depend on Target Gender

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Emma L. McGorray¹ and Christopher D. Petsko²

Abstract

Across three experiments (total N = 1,149), we examine whether bisexual men (more so than women) are viewed as similar to their samegender heterosexual counterparts and whether bisexual women (more so than men) are viewed as similar to their samegender heterosexual counterparts. We find support for the notion that bisexual men are stereotyped as more similar to their gay counterparts than bisexual women are. These perceptions of bisexual targets' stereotypical similarity to their gay counterparts were linked to identity-denying perceptions that bisexual individuals are "actually gay," a belief held more strongly about bisexual men (vs. women). Bisexual men and women were viewed as possessing stereotypically heterosexual characteristics to similar extents, although bisexual women (vs. men) were indeed more strongly characterized by the identity-denying belief that they are "actually heterosexual." Collectively, these findings suggest that bisexual men and women encounter different challenges to their identities that may require different interventions.

Keywords

stereotyping, sexual orientation, gender, identity denial, intersectional person perception

Although sexual minority people share common experiences such as facing negative societal sentiments toward the lesbian, gay, bisexual, and transgender (LGBT) community and navgiating limited non-discrimination protections (e.g., Movement Advancement Project, 2021), different sexual minority groups encounter unique challenges. For example, while both sexual minority men and women report threatening experiences with heterosexual men, women report more sexual threats, whereas men report more physical threats (Hequembourg & Brallier, 2009). Sexual minority men and women are also on the receiving ends of different attitudes: U.S. college students evaluate lesbian and bisexual women more favorably than they evaluate gay and bisexual men (Helms & Waters, 2016), and people around the world dislike gay men more than lesbian women (Bettinsoli et al., 2020). These differential experiences indicate that sexual minority people's experiences are shaped not just by their sexual orientations, but also by their gender groups. Accordingly, efforts to understand what drives anti-LGB sentiments and the negative experiences they give rise to must consider the roles of target sexual orientation and gender in tandem. In the present research, we examine stereotypes at the intersection of gender and sexual orientation to better understand the dynamics that contribute to the unique, negative experiences of different sexual minority subgroups.

We focus in particular on people's stereotypes about bisexual men and women, and how those stereotypes compare to their stereotypes about gay versus heterosexual men and women. Bisexual individuals face identity denial, or the experience of having one's identity questioned or challenged (Cheryan & Monin, 2005), more frequently than do gay individuals, and these denial experiences are associated with lower well-being (Garr-Schultz & Gardner, 2019; Maimon et al., 2019). To the extent that stereotypes about bisexual individuals undergird the beliefs associated with denying the identities of bisexual individuals, understanding stereotypes may be one promising route to understanding how to disrupt or prevent negative identity-denial experiences.

Understanding the link between stereotypes and identity denial of bisexual individuals requires separately examining stereotypes about bisexual men and women in part because *how* bisexuality is erased or denied may differ for bisexual men versus women. In a patriarchal, androcentric society that centers men (Bailey et al., 2019) and values their perspectives, priorities, and contributions more than those of women, people may grant greater legitimacy or value to things associated with men. In the context of bisexuality,

²The University of North Carolina at Chapel Hill, USA

Corresponding Author:

Emma L. McGorray, Department of Psychology, Northwestern University, 2029 Sheridan Road, Evanston, IL 60208, USA.

 ${\small {\sf Email: emma.mcgorray@u.northwestern.edu}}$

¹Northwestern University, Evanston, IL, USA

this tendency may manifest in perceivers viewing bisexual individuals' attraction to and potential for relationships with men (vs. women) as more legitimate, despite the fact that bisexual individuals are attracted to and may have relationships with members of multiple gender groups. Consequently, perceivers may more heavily weigh attractions to or relationships with men when making sense of what it might mean to be a bisexual person. Accordingly, perceivers may more often view bisexual men as "actually gay" relative to bisexual women, and bisexual women as "actually heterosexual" relative to bisexual men. If stereotypes are linked to these perceptions, individuals may stereotype bisexual men (vs. women) as more similar to their same-gender gay counterparts, and they may stereotype bisexual women (vs. men) as more similar to their same-gender heterosexual counterparts.

Emerging research suggests that people indeed display gendered patterns of identity denial in their perceptions of bisexual men and women. In open-ended responses, participants were more likely to say a bisexual woman was "really straight" than to say the same of a bisexual man, and they were more likely to doubt bisexual men or view them as "actually gay" than to do so for women (Mize & Manago, 2018; Yost & Thomas, 2012). Similarly, in qualitative interviews, respondents tended to view men's bisexuality as similar to homosexuality and women's bisexuality as similar to heterosexuality (Alarie & Gaudet, 2013). These differing perceptions of bisexual men and women also emerge in people's beliefs about the sexual attraction patterns of bisexual people: People tend to view bisexual men as being more attracted to men than to women, a pattern not seen (or seen less strongly) in their perceptions of bisexual women (Matsick & Rubin, 2018; Morgenroth et al., 2022).

Stereotyping bisexual men as similar to gay men and bisexual women as similar to heterosexual women may undergird this gendered pattern of identity beliefs about bisexual men and women. Broadly speaking, stereotypes are linked to individuals' expectations and behavior (Jenkins et al., 2018), including stereotypes about bisexual individuals (Dyar et al., 2017), and they may give rise to negative experiences faced by targets of bias. A sharper understanding of stereotypes at the intersection of gender and sexual orientation may shed light on whether unique strategies may be necessary to intervene on identitydenying beliefs that particularly affect bisexual men and those that affect bisexual women.

Experimental Overview

We conducted three experiments (total N = 1,149) to examine how stereotypes about sexual orientation categories (gay, bisexual, heterosexual) vary as a function of targets' gender groups (man, woman). Across all three experiments, we examine (a) whether stereotypes about bisexual individuals overlap with those about gay individuals more when the targets are men versus women and (b) whether stereotypes about bisexual individuals overlap with those about heterosexual individuals more when the targets are women versus men. In the third experiment, we test whether differential patterns of stereotype overlap predict differential identity-denial beliefs for bisexual men versus women. We report all exclusions and manipulations, and project survey materials, data files, R scripts, and preregistration materials are available on Open Science Framework (OSF): https://osf.io/pxevd/.

Experiment I

In Experiment 1, we employed a checklist method of assessing what stereotypes participants associated with men versus women of different sexual orientation groups. In our version of this task (originally developed by Katz & Braly, 1933), participants viewed a checklist of 99 traits and were asked to select the 10 traits that are most stereotypic of a randomly assigned target group. We used this task to examine (a) whether the stereotypes selected for bisexuals would overlap with those about gay individuals more when the targets were men versus women and (b) whether the stereotypes selected for bisexual people would overlap with those about heterosexual individuals more when the targets were women versus men.

Method

Participants were assigned to one condition in a 2 (target gender: woman, man) \times 3 (target orientation: gay, bisexual, heterosexual) between-person experimental design.

Participants. We had an *a priori* goal of recruiting 450 participants (n = 75 per condition). A total of N = 450 U.S. Mechanical Turk (Mturk) users recruited through CloudResearch.com completed Experiment 1. We excluded n = 92 (87 failed to correctly answer what target group they were assigned; 8 explicitly stated they did not take the study seriously; 1 did not correctly answer at least 3 out of 4 bot checks). This resulted in an analytic sample of 358 participants.¹ Demographic characteristics of participants in all studies can be seen in Table 1.

Procedure. Participants were randomly assigned to report on stereotypes associated with bisexual, heterosexual, or gay men or women. To do so, they viewed a list of 99 traits (e.g., loud, delicate, talkative; taken from Hall et al., 2015) and were asked to select which attributes were part of the current cultural stereotype associated with their randomly assigned group.

Following others (e.g., Devine & Elliot, 1995; Ghavami & Peplau, 2012), we told participants that we were not interested in which traits they personally believed were

Table I.	Participant Demographics Across All Experiments
(After Excl	usions)

Demographics	Exp. I	Exp. 2	Exp. 3
N	358	393	398
Gender (%)			
Men	57.5	57.6	50.8
Women	41.9	41.7	48.7
Nonbinary	0.6	1.1	0.5
Another gender identity	0	0	0
Sexual orientation (%)			
Heterosexual	86.9	88.0	83.4
Bisexual or pansexual	6.4	7.4	11.1
Gay/lesbian	4.5	3.1	4.0
Asexual	1.4	0.5	0.5
Queer	0.3		0.3
Uncertain or questioning	0.6	0.5	0.8
Another identity or	0	0.3	0.3
not reported Race (%)			
African American/Black	10.1	8. I	8.8
Asian or Pacific Islander	12.8	10.2	7.8
Hispanic/Latino/Latina/Latinx	5.6	5.6	3.5
Middle Eastern	0.8		_
Multi-racial	0.6	0.8	4.3
Native American	0.3	1.1	0.8
Another race	0.3	0	0.3
White	73.5	74.3	74.4
Political ideology, M (SD)	4.0 (3.0)	4.3 (2.4)	4.1 (3.0)
Education (% with bachelor's)	56.7	54.4	62.6
Age, M (SD)	39.1 (11.9)	36.3 (11.0)	41.6 (12.6)

Note. To minimize the influence of cultural differences in perceptions of sexual orientation and gender groups, all participants were from a single nation (the United States). Exp. = experiment. Education = the percentage of participants with a bachelor's degree or higher. For Exp. 1 and Exp. 3, political ideology was measured on a scale from 0 = extremely liberal to 10 = extremely conservative. For Exp. 2, political ideology was measured on a scale from 1 = extremely liberal to 10 = extremely conservative. Instances where percentages within a category sum to >100 are the result of allowing participants to select multiple answer choices.

most characteristic of their randomly assigned target group, but rather in which traits were culturally believed to be most characteristic of their randomly assigned target group. After making their initial selections from the list of 99 traits, participants were asked to narrow their selections down to the 10 most stereotypic attributes of their target group (as described in Petsko & Bodenhausen, 2019).

Results

Following Ghavami and Peplau (2012), we defined the stereotype content for each target group as the 15 traits most frequently associated with that target group (based on participants' final trait nominations). In cases where there was a tie for the 15th most common trait, we included whichever trait came first alphabetically. Stereotype content for bisexual, heterosexual, and gay men can be seen in Table 2, and stereotype content for bisexual, heterosexual, and lesbian women can be seen in Table 3.

We began by examining the extent to which the stereotype content for bisexual men and bisexual women overlapped with the stereotype content for gay men and lesbian women, respectively. In doing so, we focused specifically on the extent to which the bisexual target group stereotype content overlapped with uniquely gay stereotype content and uniquely heterosexual stereotype content (i.e., content that appears for the gay group but not the heterosexual group, and content that appears for the heterosexual group but not the gay group). This approach allowed us to gauge the amount of overlap between bisexual stereotype content and gay and heterosexual stereotype content after accounting for the fact that there may be some traits that are shared across all three sexual orientation categories we examined-traits whose presence in the bisexual stereotype content would not constitute strong evidence that people view bisexual individuals as particularly similar to gay or heterosexual individuals.

For example, imagine the trait "sensual" appears in the stereotype content for bisexual women, and that it also appears in the stereotype content for heterosexual women and for lesbian women. Because this term appears in the stereotype content for all three groups, this may suggest that people are viewing women in general as "sensual," rather than viewing bisexual women as possessing particularly "heterosexual" or particularly "lesbian" traits. By focusing specifically on traits that distinguish the heterosexual and gay/lesbian groups from one another, we can ensure that our overlap metric captures instances in which people seem to be stereotyping bisexual individuals as uniquely similar to their gay/lesbian or heterosexual counterparts, not just viewing bisexual individuals as similar to one of the other groups because they tend to view members of a given gender group, regardless of sexual orientation, as similar to one another.²

To proceed with our analysis, we computed two sums: (a) the sum of the frequencies with which "bisexual men" traits that overlapped with distinctively "gay men" traits were nominated and (b) the sum of the frequencies with which the "bisexual men" traits that did *not* overlap with distinctively "gay men" traits were nominated. Across participants, the 15 most commonly selected traits for bisexual men were nominated 220 times; 145 of these nominations were for traits that also were viewed as characterizing gay men (equivalent to the sum of "Freq." values for all "bisexual men" traits with the superscript "G" in Table 2), and the remaining 75 were not (equivalent to the sum of "Freq." values for all "bisexual men" traits without the superscript "G" in Table 2). We computed equivalent sums for bisexual women. Across participants, the 15 most commonly selected traits for bisexual women were nominated 296 times; 136 of these nominations were for traits that also were viewed as characterizing lesbian women (equivalent to the sum of "Freq." values for the "bisexual women" traits with the superscript "G" in Table 3), and the remaining 160 were not (equivalent to the sum of "Freq." values

Heterosexual men ($n = 58$)		Bisexual men ($n = 5$	6)	Gay men (<i>n</i> = 45)
Attribute	Freq.	Attribute	Freq.	Attribute	Freq.
Arrogant	21	Pleasure-loving ^G	31	Pleasure-loving	27
Aggressive	20	Sexually perverse	26	Sexually perverse	24
Boastful	20	Progressive ^G	20	Sensitive	23
Conservative	18	Sensitive ^G	18	Talkative	23
Sportsmanlike	17	Sensual	17	Artistic	21
, Straightforward	17	Happy-go-lu <u>c</u> ky ^G	16	Ostentatious (showy)	21
Conventional	16	Artistic ^G	12	Neat	16
Practical	15	Impulsive	12	Loud	13
Ambitious	14	Passionate ^G	12	Delicate	12
Athletic	13	Suave	12	Happy-go-lucky	12
Stubborn	13	Neat ^G	11	Passionate	12
Tradition-loving	13	Talkative ^G	9	Gregarious	11
Loyal to family ties	12	lovial	8	Impulsive	10
Sexually perverse	12	Materialistic ^G	8	Progressive	10
Impulsive	11	Ostentatious (showy) ^G	8	Materialistic	9
Traits tied for 15th most	nominated				
Persistent	11	NA		Musical, sensual, witty	9

Table 2. Fifteen Most-Nominated Traits for Heterosexual, Bisexual, and Gay Men (Experiment 1)

Note. Freq. = the number of participants (within a condition) who included a given attribute in their final trait nominations. A superscript "G" indicates the trait for bisexual men overlaps with a trait that distinguishes gay men from heterosexual men, and a superscript "H" indicates the trait for bisexual men overlaps with a trait that distinguishes heterosexual men from gay men. Italicized traits are those that differentiate heterosexual and gay men from each other. NA = not applicable.

for the bisexual women traits without the superscript "G" in Table 3).

Next, to examine whether the proportion of traits overlapping between the bisexual and distinctively gay stereotype content differed by target gender, we conducted a Chisquare test of independence on the frequency table displayed in Table 4. Our analyses had 80% power to detect an effect of Cohen's w = .12. We found that the nature of the traits (overlapping with distinctively gay traits vs. not) and gender were related, χ^2 (1, N = 516) = 19.48, p < .001. Consistent with hypotheses, bisexual men (vs. women) traits overlapped more with distinctively gay same-gender stereotype content. For bisexual men, 65.9% of trait nominations were for traits that overlapped with the distinctively gay men stereotype content; for bisexual women, 45.9% of trait nominations were for traits with distinctively lesbian women stereotype content.

We repeated this process focusing on the traits overlapping between the stereotype content of bisexual men and women and their respective same-gender heterosexual counterparts. For both men and women, the percentage of bisexual stereotype traits that overlapped with distinctively heterosexual traits was zero. Although the zero values precluded us from conducting a Chi-square analysis, these results suggest that overlap with heterosexual counterparts did not differ by target gender.

Discussion

In Experiment 1, we used a checklist method to examine the extent to which the stereotype content associated with bisexual men and women overlapped with the stereotype content associated with their heterosexual and gay samegender counterparts. Although we found support for the idea that bisexual men (more than women) are stereotyped as being similar to their gay counterparts, we did not find support for the idea that bisexual women (more than men) are stereotyped as being similar to their heterosexual counterparts.

Experiment 2

One limitation of the checklist approach is that it constrains the stereotype attributes that participants nominate to a pre-determined list, meaning the generated stereotype content may not align with the stereotypes people naturalistically associate with these groups. In Experiment 2, we address this limitation by examining *freely generated* stereotype attributes for heterosexual, bisexual, and gay men and women. In Experiment 2, participants freely listed whatever stereotypes came to mind when thinking about a randomly assigned target group. To test our hypotheses, we systematically condensed these traits and conducted parallel analyses to those conducted in Experiment 1.

Method

Participants were assigned to one condition in a 2 (target gender: woman, man) \times 3 (target orientation: gay, bisexual, heterosexual) between-person experimental design.

Heterosexual women $(n = 61)$		Bisexual women ($n = 67$)		Lesbian women (n = 69)		
Attribute Freq.		Attribute	Freq.	Attribute	Freq.	
Talkative	31	Pleasure-loving	38	Aggressive	23	
Materialistic	23	Sexually perverse ^G	34	Argumentative	23	
Delicate	21	Progressive ^G	31	Progressive	23	
Loyal to family ties	20	Individualistic ^G	27	Sexually perverse	23	
Sensitive	20	Sensual	27	Athletic	21	
Gentle	19	Passionate ^G	23	Pleasure-loving	19	
Kind	15	Impulsive	20	Individualistic	18	
Tradition-loving	15	Radical	16	Sensual	18	
Faithful	14	Argumentative	13	Artistic	15	
Pleasure-loving	14	Ostentatious (showy)	13	Loud	15	
Conventional	13	Suggestible	13	Passionate	15	
Polite	13	Artistic ^G	11	Quarrelsome	14	
Sensual	13	Loud ^G	10	Talkative	13	
Ambitious	11	Straightforward	10	Sportsmanlike	12	
Argumentative	10	Talkative	10	' Stubborn	12	
Traits tied for 15th most nomin	ated					
Honest, naïve, stubborn	10	NA		NA		

Table 3. Fifteen Most-Nominated Traits for Heterosexual, Bisexual, and Lesbian Women (Experiment 1)

Note. Freq. = the number of participants (within a condition) who included a given attribute in their final trait nominations. A superscript "G" indicates the trait for bisexual women overlaps with a trait that distinguishes lesbian women from heterosexual women, and a superscript "H" indicates the trait for bisexual women overlaps with a trait that distinguishes heterosexual women from lesbian women. Italicized traits are those that differentiate heterosexual and lesbian women from each other. NA = not applicable.

Table 4.	Frequenc	y of Bisexua	l Traits Tha	t Overlap (vs. Not) With "Ga	ıy" Traits (l	Experiment I))
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Target gender	Sum frequency of bisexual traits overlapping with distinctively gay traits	Sum frequency of bisexual traits not overlapping with distinctively gay traits
Man Woman	145	75
Woman	136	160

Note. Distinctively gay traits are those that differentiate gay men and lesbian women, respectively, from heterosexual men and heterosexual women. These frequencies were subjected to a Chi-square test of independence.

Participants. We had an a priori goal of recruiting 450 participants (n = 75 per condition). A total of N = 588 U.S. Mturk workers consented to participate, of whom 445 followed instructions to nominate stereotypical traits of a target group and passed a manipulation check (i.e., correctly answered for which target group they nominated traits). We removed 21 participants who reported not completing the study carefully and 3 participants who reported having completed the study before, resulting in 422 observations. We then screened these observations to ensure that there were no duplicate Mturk IDs; 25 Mturk users contributed multiple observations to the dataset. For each participant who contributed multiple observations, we randomly selected one of their observations to retain and removed the others. After removing three observations with entirely nonsensical sets of stereotypes, we were left with 393 participants whose demographic information is shown in Table 1.

Procedure. Participants were assigned to think of one target group in a 2 (target gender) \times 3 (target orientation)

between-person design. We told participants that we were interested in understanding the cultural stereotypes that are applied to various groups of people. Participants were shown the following prompt (instructions adapted from Ghavami & Peplau, 2012): "In the spaces below, please list five characteristics that are part of the *current cultural stereotype* of [randomly assigned group]. Please list the five stereotypes that come to mind most quickly, regardless of whether you believe them to be true." Participants were shown five numbered text boxes in which they could list whatever content came to mind.

Results

Stereotype Condensing. To prepare the data for analysis, we followed other researchers (e.g., Ghavami & Peplau, 2012; Preddie & Biernat, 2021) and had coders condense the entire set of stereotypes into a smaller set of attributes, grouping together traits with the same or a similar meaning (e.g., "smart" and "intelligent"). Before sorting the words,

Heterosexual men ($n = 71$)		Bisexual men $(n = 61)$	Gay men (<i>n</i> = 69)		
Attribute Freq.		Attribute	Freq.	Attribute	Freq
Masculine	27	Feminine ^G	25	Feminine	50
Strong	14	Gay/actually just gay ^G	21	Fashionable	23
Aggressive	12	Promiscuous	13	Flamboyant	19
Sexual	10	Confused	10	Promiscuous	18
Unemotional	10	Indecisive	10	Loud	15
Mean	8	Fashionable ^G	9	Weak	14
Arrogant	7	Invalid/not really what sexuality they say	9	Dramatic	9
Athletic	7	Weak ^G	9	Emotional	7
Boring	7	Disloyal	8	Annoying	6
Dominant/controlling	7	Clean/well-groomed ^G	7	Athletic	5
Muscular	6	Flamboyant ^G	7	Friendly	5
Sports fan	6	Sexual ^H	7	Gay (derogatory)	5
Tough	6	Emotional ^G	6	High-pitched voice	5
Unintelligent	6	Mental health issues	5	Catty	4
Intelligent	5	Noncommital	5	Clean/well-groomed	4
Traits tied for 15th most nominat	ed			C C	
Misogynistic, predatory, sexist	5	Unusual/weird	5	Colorful, funny, happy, immoral, kind, sassy, sensitive, social, thin/skinny	4

Table 5. Fifteen Most Nominated Traits for Heterosexual, Bisexual, and Gay Men (Experiment 2)

Note. Freq. = the number of participants (within a condition) who included a given attribute in their final trait nominations. A superscript "G" indicates the trait for bisexual men overlaps with a trait that distinguishes gay men from heterosexual men, and a superscript "H" indicates the trait for bisexual men overlaps with a trait that distinguishes heterosexual men from gay men. Italicized traits are those that differentiate heterosexual and gay men from each other.

we eliminated any that simply stated the name of the target group or did not adequately address the prompt (entries such as "none," or "gay" for the "gay man" group; 0.5% of entries removed). We retained entries that referred more obliquely to the target group (e.g., references to "gay sex" or homophobic slurs). The first author and a research assistant then independently condensed the remaining 1,941 entries into synonym categories.

Once both coders had condensed the traits, the first author compared their work to identify any discrepancies between their categorizations. The first author addressed any superficial differences (e.g., differences in capitalization and punctuation between coders; highly similar/synonymous labels for trait categories), and the second author then resolved any remaining discrepancies. As in Experiment 1, we identified the stereotype content for each target group as the 15 traits most frequently nominated for each group. Stereotype content for each target group is displayed in Tables 5 and 6.

Analyses. We first examined the extent to which the stereotype content for bisexual men and bisexual women overlapped with the stereotype content for gay men and lesbian women, respectively. We followed the same approach as in Experiment 1. For men, we identified any traits in the "bisexual men" stereotype content that overlapped with any distinctively "gay men" traits and summed the frequencies with which those traits were nominated; we also identified any traits in the "bisexual men" stereotype content that did not overlap with distinctively "gay men" traits and summed the frequencies with which those traits were nominated. We conducted a parallel process for bisexual women. For both bisexual men and bisexual women, we counted the trait "Gay/Actually gay" as overlapping with gay stereotype content. This process produced a two-way frequency table (target gender: man vs. woman; overlapping status: overlapping vs. non-overlapping) that we subjected to a Chi-square test of independence, which had 80% power to detect an effect of Cohen's w = .16. A frequency table for overlap with distinctively gay traits in Experiment 2 is displayed in Table 7.

The Chi-square test described above revealed that the nature of the traits (overlapping with distinctively gay traits vs. not) and gender were related, χ^2 (1, N = 307) = 25.77, p < .001. Consistent with predictions, the bisexual men traits overlapped more with the distinctively gay men stereotype content. For bisexual men, 64.2% of trait nominations were for traits that overlapped with the distinctively gay men stereotype content; for bisexual women, 34.6% of trait nominations were for traits with distinctively lesbian women stereotype content.

We next conducted a Chi-square test to examine whether overlap between bisexual and *heterosexual* stereotype content varied according to targets' gender groups. This analysis revealed that the nature of the traits (overlapping with distinctively heterosexual traits vs. not) and gender were not related, χ^2 (1, N = 307) = 0.004, p = .952. For bisexual men, 7 of 151 trait nominations (4.6%) were for traits that overlapped with the distinctively heterosexual men

Heterosexual women ($n = 63$)		Bisexual women ($n = 60$)	Bisexual women ($n = 60$)			
Attribute Freq.		Attribute	Freq.	Attribute	Freq.	
Attractive/good-looking 12		Promiscuous	36	Masculine	74	
Feminine	10	Masculine ^G	26	Short hair	21	
Kind	9	Attractive/good-looking	13	Man-hating	16	
Domestic	8	Confused	13	Mean	14	
Emotional	7	Sexual	12	Fat	12	
Intelligent	7	Indecisive	8	Athletic	9	
Weak	7	Strong ^G	8	Feminist	9	
Mothers	6	Deceptive/dishonest ^H	6	Unattractive	9	
Promiscuous	6	Dyed hair/piercings /tattoos	6	Aggressive	7	
Attracted to men/likes men	5	, Short hair ^G	6	Attractive/good-looking	6	
Bossy	5	Mean ^G	5	Dominant/controlling	6	
Unintelligent	5	Unattractive ^G	5	Tough	6	
Wear/like makeup	5	Attention-seeking	4	Assertive	5	
White	5	Gay/Actually just gay ^G	4	Promiscuous	5	
Deceptive/dishonest	4	Invalid/Not really what sexuality they say	4	Strong	5	
Traits tied for 15th most nominated		,, ,,		0		
Mean, mothering, needy, traditional	4	Mental health issues	4	NA		

Table 6. Fifteen Most Nominated Traits for Heterosexual, Bisexual, and Lesbian Women (Experiment 2)

Note. Freq. = the number of participants (within a condition) who included a given attribute in their final trait nominations. A superscript "G" indicates the trait for bisexual women overlaps with a trait that distinguishes lesbian men from heterosexual women, and a superscript "H" indicates the trait for bisexual men overlaps with a trait that distinguishes heterosexual women from lesbian women. Italicized traits are those that differentiate heterosexual and lesbian women from each other. The frequency with which a trait appears for a given target group may exceed the total number of participants assigned to nominate traits for that target group because some participants nominated multiple attributes that were ultimately condensed into the same trait category (e.g., the terms "boyish" and "manly" were both categorized under the trait "masculine," meaning if a single participant nominated both terms, that would count as two entries in the "masculine" frequency). NA = not applicable.

Table 7.	Frequency	of Bisexual 1	Traits That	Overlap (vs.	Not) With	"Gay" Traits	(Experiment 2)

Target gender	Sum frequency of bisexual traits overlapping with distinctively gay traits	Sum frequency of bisexual traits not overlapping with distinctively gay traits
Man Woman	97 54	54

Note. Distinctively gay traits are those that differentiate gay men and lesbian women, respectively, from heterosexual men and heterosexual women. These frequencies were subjected to a Chi-square test of independence.

stereotype content; for bisexual women, 6 of 156 trait nominations (3.8%) were for traits with distinctively heterosexual women stereotype content.

Discussion

In Experiment 2, we used participant-generated stereotypes about gay, bisexual, and heterosexual men and women to evaluate the extent to which the stereotype content associated with bisexual men and women overlapped with the stereotype content associated with their heterosexual and gay same-gender counterparts. As in Experiment 1, we found support for the hypothesis that bisexual stereotype content would overlap more with gay stereotype content for men than for women, but we did not find support for the hypothesis that bisexual stereotype content would overlap more with heterosexual stereotype content for women than for men.

Experiment 3

In Experiment 3, participants rated either bisexual men or women on the extent to which they were stereotyped as possessing the "distinctively gay" and "distinctively heterosexual" attributes identified in Experiment 1. We then assessed the extent to which endorsing these stereotypes (i.e., perceiving stereotypic overlap between bisexual individuals and their gay or heterosexual counterparts) predicted endorsement of identity-denying beliefs about bisexuality. Predictions and analyses for Experiment 3 were pre-registered, but results reported below deviate from the pre-registration plan and should therefore be considered exploratory.³

Method

Participants were randomly assigned to provide ratings of stereotypes about either bisexual men or bisexual women and responded to identity-denial measures about their randomly assigned group.

Participants. We had an *a priori* goal of recruiting 400 participants (n = 200 per condition). A total of 412 Mturk participants (recruited via CloudResearch.com) completed this study; after removing participants (n = 12) who did not respond "yes" to the question, "Did you take this survey seriously?," we were left with 398 respondents. Sample demographics are displayed in Table 1.

Procedure. As in the previous experiments, participants were asked to reflect on cultural stereotypes about bisexual individuals. By random assignment, participants called to mind either bisexual men or bisexual women.

Bisexual-Gay and Bisexual-Heterosexual Stereotype Overlap. In both experimental conditions, participants rated that the extent bisexual targets were stereotyped as possessing "distinctively gay" and "distinctively heterosexual" attributes that had been identified in Experiment 1. Participants were asked the question, "According to cultural stereotypes, how _____ is the average bisexual man [woman]?" Participants in the bisexual men condition rated bisexual men on each italicized attribute from Table 2, and participants in the bisexual women condition rated bisexual women on each italicized attribute from Table 3. All ratings were provided on scales from 1 = not at all to 5 =very. Ratings on "distinctively gay" attributes were then averaged together into an index of bisexual-gay overlap for both men ($\alpha = 0.85$) and women ($\alpha = 0.68$), respectively. Ratings on "distinctively heterosexual" attributes were likewise averaged together into an index of bisexualheterosexual overlap for both men ($\alpha = 0.69$) and women $(\alpha = 0.79).$

Identity-Denying Beliefs. After providing ratings of stereotype overlap, participants completed measures of identitydenying beliefs. In particular, participants rated their randomly assigned target group on the extent to which these individuals are "actually gay" (e.g., "Most bisexual men [women] just haven't come out as gay yet"; α for bisexual men = 0.84, α for bisexual women = 0.88), and on the extent to which these individuals are "actually heterosexual" (example item, "For most women [men], being bisexual is just temporary—eventually, they'll go back to identifying as straight"; α for bisexual men = 0.58, α for bisexual women = 0.84). "Actually gay" and "actually heterosexual" beliefs were each measured with three-item scales (adapted from Morgenroth et al., 2022), which ranged from I = not at all to 5 = very much.

Results

One key reason for conducting Experiment 3 was to test whether differential patterns of stereotype overlap are

with differential associated identity-denial beliefs. Correlational tests suggest that the tendency to stereotype bisexual individuals as possessing distinctively "gay" attributes was indeed predictive of "actually gay" identity denial (perceptions of bisexual men: r[198] = .32, p < .32.001; perceptions of bisexual women: r[196] = .21, p =.003), whereas the tendency to stereotype bisexual individuals as possessing distinctively "heterosexual" attributes was predictive of "actually heterosexual" erasure beliefs-at least among perceptions of bisexual men: r(198) = .33, p < .001.⁴ Thus, stereotypic beliefs about bisexual individuals may be implicated, at least to some degree, in a tendency to endorse identity-denying beliefs about bisexual individuals.

Bi-Gay and Bi-Heterosexual Stereotype Overlap. As in the prior experiments, we predicted (a) that participants would stereotype bisexual men, more than bisexual women, like their gay counterparts, and (b) that participants would stereotype bisexual women, more than bisexual men, like their heterosexual counterparts. To examine these predictions, we subjected participants' stereotype overlap beliefs to a 2 (target gender: woman, man) \times 2 (overlap type: bisexual-gay, bisexual-heterosexual) mixed ANOVA with repeated measures on the second factor.⁵ This analysis revealed a two-way interaction between target gender and overlap type: $F(1, 796) = 5.50, p = .019, R^2 = .01$. Decomposing this two-way interaction revealed that participants perceived greater bisexual-gay stereotype overlap when thinking of bisexual men (M = 3.82, SE = 0.03)than when thinking of women (M = 3.68, SE = 0.04), $M_{\text{diff}} = 0.14,95\%$ confidence interval (CI) = [0.04, 0.23], F(1, 796) = 7.77, p = .005. However, participants did not perceive any greater bi-heterosexual stereotype overlap when thinking of bisexual women (M = 2.65, SE = 0.03) than when thinking of bisexual men (M = 2.62, SE =0.03), $M_{\text{diff}} = -0.03, 95\%$ CI = [-0.12, 0.07], F(1, 796) =0.28, p = .597. Thus, we found support for the hypothesis that participants would stereotype bisexual men, more than bisexual women, like their gay counterparts. However, we found no support for the corollary hypothesis that participants would stereotype bisexual women, more than bisexual men, like their heterosexual counterparts.

Identity-Denying Beliefs. Finally, in Experiment 3, we predicted (a) that participants would endorse "actually gay" identity denial about bisexual men more than about bisexual women, and (b) that participants would endorse "actually heterosexual" identity denial more about bisexual women than about bisexual men. To examine these predictions, we subjected participants' identity-denial beliefs to a 2 (target gender: woman, man) \times 2 (denial type: "actually gay," "actually heterosexual") mixed ANOVA with repeated measures on the second factor. This analysis revealed a two-way interaction between target gender and

identity-denial type: F(1, 398) = 101.61, p < .001, $R^2 = .20.^6$ Decomposing this two-way interaction revealed that participants endorsed "actually gay" identity denial more when thinking of bisexual men than when thinking of bisexual women, $M_{\text{diff}} = 0.65$, 95% CI = [0.45, 0.86], F(1, 769) = 39.72, p < .001 (Figure 1, left-hand side). However, consistent with predictions, participants endorsed "actually heterosexual" identity denial more when thinking of bisexual women than when thinking of bisexual men, $M_{\text{diff}} = -0.68$, 95% CI = [-0.88, -0.48], F(1, 769) = 42.84, p < .001 (Figure 1, right-hand side).

General Discussion

Across three experiments, we tested whether bisexual men and women differ in the extent to which they are stereotyped as similar to their gay and heterosexual counterparts. Consistent with hypotheses, we found that bisexual men were viewed as possessing stereotypically gay characteristics more so than bisexual women were. Perceptions of bisexual targets as similar to gay targets were in turn associated with identity-denying beliefs that bisexual people are "actually gay," beliefs participants held more strongly when evaluating bisexual men versus women. In contrast to our hypotheses, bisexual men and women were viewed as possessing stereotypically heterosexual characteristics to similar extents, but bisexual women were viewed as "actually heterosexual" more so than bisexual men were. Perceptions of bisexual targets as similar to heterosexual targets predicted these "actually heterosexual" identity-denying beliefs, but in opposite directions for men and women, suggesting further research is needed to better understand what may be driving such beliefs, particularly those directed toward bisexual women.

Our findings surrounding stereotypical perceptions of bisexual people join the growing literature on beliefs about bisexual people and are consistent with findings suggesting that people perceive bisexual men and women differently. However, though our results suggest that perceptions of bisexual people differ by target gender, they are not entirely consistent with findings suggesting that people equate female bisexuality with heterosexuality and male bisexuality with homosexuality (Alarie & Gaudet, 2013)-across all three experiments, and like previous research (Klysing et al., 2021), both bisexual men and women were viewed as more similar to their gay counterparts than their heterosexual ones. Our results do suggest that bisexual women, more than bisexual men, may be on the receiving end of beliefs that they are "actually heterosexual," while bisexual men, more than bisexual women, may be on the receiving end of beliefs that they are "actually gay." Furthermore, our results suggest that interventions to address these perceptions may require different strategies when the evaluation target is a man versus a woman. Based on our findings,

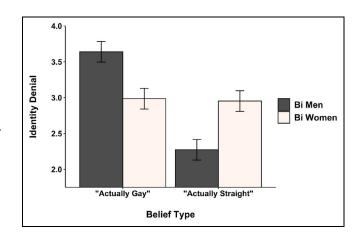


Figure 1. Identity-Denial Beliefs About Bisexual Men and Bisexual Women (Experiment 3)

Note. Average levels of "actually gay" and "actually straight" identity denial expressed toward bisexual men (darker color) and bisexual women (lighter color), respectively. Means are encompassed by 95% confidence intervals.

intervening on individuals' perceptions of stereotypical traits characterizing bisexual men may be one promising route to disrupting the "actually gay" identity-denying beliefs directed more often toward bisexual men, but more research is needed to identify what might disrupt the "actually heterosexual" identity-denying beliefs directed more often toward bisexual women.

Although we believe that this work opens the possibility for important future research related to bisexuality and sexual orientation more broadly, this work is not without limitations. First, although all three studies involved an experimental approach, our examination of links between stereotype similarity and endorsement of identity-denial beliefs were correlational. Identity-denial beliefs may cause perceptions of stereotypical similarity, or the relationship between denial beliefs and perceived stereotype similarity may be bidirectional. Future work exploring these possibilities will add to our understanding of how best to address potentially harmful beliefs about bisexual individuals, as will work that experimentally investigates whether other constructs (e.g., androcentrism) may give rise to the patterns of stereotyping and identity denial we observed here. Second, our research focused only on heterosexual, bisexual, and gay men and women. Although these groups are important to consider, our research does not speak to people's stereotypical beliefs about people outside of the gender binary or people who hold other sexual orientation identities, such as people who primarily identify as queer. Investigating stereotypes at the intersection of additional gender and sexual orientation categories is an important avenue for future research given the diverse array of gender and sexual identity labels LGBTQ + youth are adopting (Hammack et al., 2021).

Concluding Remarks

As work in this area continues, we must bear in mind the importance of attending to differences in the way sexual minority men and women are perceived, even within the same sexual orientation category. The meaning of a person's bisexuality—and to whom one is perceived to be similar in the eyes of others—may depend on the identities with which bisexuality intersects.

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ORCID iD

Emma L. McGorray (D https://orcid.org/0000-0001-5761-7501

Supplemental Material

Supplemental material is available in the online version of the article.

Data Availability

Data files, codebooks, survey materials, pre-registration documentation, and R scripts are available on the Open Science Framework (OSF) website: https://osf.io/pxevd/.

Notes

- 1. The *ns* in Tables 2 and 3 sum to 356 because two participants did not select any traits during the trait selection task.
- 2. Results where we look across all traits, including those shared between gay and heterosexual groups, are available in the supplement. Notably, this approach is limited in that it does not adjust for the fact that stereotype overlap between bisexual groups and other same-gender orientation groups may occur simply because of a shared gender group (e.g., someone views bisexual women as "talkative" not because they are stereotyping them as similar to heterosexual women or to lesbian women, but because they tend to view women in general as "talkative," regardless of sexual orientation). Across experiments, in those analyses, we find evidence for greater bisexual/heterosexual overlap for women versus men and little evidence for greater bisexual/gay overlap for men versus women. These results seemingly stem from the greater overlap across all three sexual orientation categories in the stereotype content of women versus men.
- 3. The interpretation of all findings from Experiment 3 remains the same regardless of how the data are analyzed, and all analytic choices presented here were made based on reviewer feedback. See the online supplement for more detail.

- 4. Unexpectedly, stereotypes that bisexual women possess distinctively "heterosexual" attributes were *negatively* correlated with "actually heterosexual" erasure beliefs: r(197) = -.17, p = .018 (see the online supplement for a full correlation matrix between all study variables).
- 5. All 2 \times 2 mixed ANOVAs were run as multilevel models that contained just one random effect: a random effect of participant intercept. This random effect adjusted for the fact that one factor in each model was nested within-person. According to Monte Carlo simulations, these models gave us >80% power to detect simple effects of target gender as small as $M_{\text{diff}} = 0.15$ (stereotype overlap) and M_{diff} = 0.30 (identity denial), respectively.
- 6. Neither 2×2 mixed ANOVA yielded a main effect target gender (all ps > .11). However, both ANOVAs yielded a main effect of rating type (all ps < .001), suggesting that bi-gay overlap and "actually gay" beliefs, respectively, were more common than bisexual-heterosexual and "actually heterosexual" beliefs.

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Author Biographies

Emma L. McGorray is a PhD candidate at Northwestern University. Her research broadly examines the identities and experiences of LGBTQ + people and their relationships.

Christopher D. Petsko is a social psychologist who works as an Assistant Professor of Organizational Behavior at the University of North Carolina at Chapel Hill. At the most general level, Chris's research examine how it is that stereotypes influence person perception.

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