

Challenging Binaries by Saying Good Bi: Perceptions of Bisexual Men's Identity Legitimacy

Katheryn E. Morrison, Jordan M. Gruenhage & Cory L. Pedersen

To cite this article: Katheryn E. Morrison, Jordan M. Gruenhage & Cory L. Pedersen (2016): Challenging Binaries by Saying Good Bi: Perceptions of Bisexual Men's Identity Legitimacy, Journal of Bisexuality

To link to this article: <http://dx.doi.org/10.1080/15299716.2016.1183157>



Published online: 07 Jun 2016.



Submit your article to this journal [↗](#)



View related articles [↗](#)



View Crossmark data [↗](#)

Challenging Binaries by Saying Good Bi: Perceptions of Bisexual Men’s Identity Legitimacy

Katheryn E. Morrison, Jordan M. Gruenhage, and Cory L. Pedersen

Kwantlen Polytechnic University, Surrey, British Columbia, Canada

ABSTRACT

Since the 1970s, sexuality research has focused on a multitude of factors precipitating and influencing sexuality discrimination. However, the unique social positioning of bisexual individuals is notably absent in comparison to discussions of discrimination experienced by lesbians and gay men. This research examined bisexual discrimination at an institution in Western Canada, and among larger online communities predominantly accessed in North America. An online questionnaire measured 306 participants’ negative attitudes toward bisexual men and bisexuality. Results indicated that levels of bisexual discrimination for most participants were influenced by altering the content of an article that participants read before completing a measure of bisexual discrimination. Biphobia scores remained relatively stable among bisexual participants regardless of gender, whereas scores were revealed to be more variable among straight participants. By illustrating the contrasting ways in which individuals perceive information about bisexual people, the findings of this study suggest a new understanding of bisexual discrimination that differs from the existing literature.

KEYWORDS

bisexual; biphobia; sexual orientation; discrimination

Although 4.6% of the American population identify as bisexual, and only 2.8% identify as gay, most research on sexual orientation has focused solely on lesbians’ and gay men’s sexuality—the bisexual population is often considered an afterthought of the lesbian, gay, bisexual, transgender, and queer (LGBTQ) communities (Chandra, Mosher, & Copen, 2011; Weiss, 2003). Despite the paucity of research on bisexual individuals and bisexuality, current inquiries have revealed that bisexual individuals face discrimination similar to, but distinct from, that experienced by general LGBTQ populations (Weiss, 2003). For instance, bisexual people are subject to “double discrimination”—discrimination arising from the straight and gay populations (Weiss, 2003). This double discrimination leads some to hide their bisexual identity, thereby “erasing” their specific sexual identification,

CONTACT Cory L. Pedersen  cory.pedersen@kpu.ca  Kwantlen Polytechnic University, 12666 72nd Avenue, Surrey BC, Canada V3W2M8.

Color versions of one or more of the figures in this article can be found online at www.tandfonline.com/wjbi.

© 2016 Taylor & Francis Group, LLC

and positioning one as gay or straight based on their current relationship (Weiss, 2003; Yoshino, 2000). In this way, bisexual individuals may be driven further into secretive identities (Yoshino, 2000). Consequently, this double discrimination has contributed to a mental health crisis for bisexual individuals in that they face much higher rates of depression, suicidal ideation, and substance abuse than either straight or gay populations (Ross, Dobinson, & Eady 2010; Schick & Dodge, 2012; Volpp, 2010). Although discrimination against bisexual individuals is evident in research conducted among the gay and straight communities, the literature has yet to examine the forms and causal elements of biphobia through a quantitative lens (Mohr & Rochlen, 1999; Mulick & Wright, 2002, 2011; Steffens & Wagner, 2004; Wright, Mulick, & Kincaid, 2007; Yost & Thomas, 2012). The purpose of the present study was to quantitatively explore how exposure to information about bisexual men could modify perceptions of bisexuality.

Defining bisexuality

Although seemingly simple, bisexuality is not a straightforward concept. Consequently, many studies do not explicitly define 'bisexuality,' assuming that readers discern what the term means (Brewster & Moradi, 2010; Mohr & Rochlen, 1999; Yost & Thomas, 2012). Other studies define 'bisexuality' based either on past sexual experience with members of other- and same-gender partners, or sexual desire with or without previous sexual experience (Rieger, Chivers, & Bailey, 2005; Steffens & Wagner, 2004; Wright, Bonita, & Mulick, 2011). Problems associated with the absence or differing definitions of 'bisexuality' become apparent in reviews of research demographics (Chandra et al., 2011). For instance, in a 2011 study representative of the American population, 5.2% of males reported having a same-gender sexual experience, and 6.1% admitted to having same-gender sexual desires, but only 1.7% reported being gay, and 1.1% reported being bisexual (Chandra et al., 2011). Although some men reported previous same-gender sexual experience or desires, these men did not define themselves as gay or bisexual, which suggests that previous sexual experience or current desire may not be viable indicators of sexual orientation, and therefore, not sufficient criteria for determining a definition.

Another issue is definition stability (Chandra et al., 2011), which pertains to the transient aspect of the bisexual label. Although it is true that some bisexual men and women first identify as bisexual before coming out as gay, evidence indicates that this pathway is not typical for the majority (Volpp, 2010). Another consideration is that bisexual individuals sometimes have others assign a sexual orientation to them, based on whether their current romantic relationship is with someone of the same or other gender (Stokes, McKirnan, & Burzette, 1993; Volpp, 2010), further confounding the definition of this construct.

Clearly, there is no one best way to define 'bisexuality' given flaws in each approach to definition. To research the concept of bisexuality, some definitions are

warranted, however. The most encompassing definition that accounts for most aspects of bisexuality would be an individual's sexual behavior, desire, and emotional attachment to both genders, as best identified by the individuals themselves (Hoang, Holloway, & Mendoza, 2011; Stokes et al., 1993). This definition of 'bisexuality' was utilized in the present study.

Attitudes relating to bisexual etiology

Biphobia has been distinguished from homophobia in regard to two unique elements (Wright et al., 2011). In one, bisexual individuals are perceived as carriers of sexually transmitted infections (STIs), including HIV (Brewster & Moradi, 2010; Eliason, 2000; Ochs, 1996; Wright et al., 2011) and are denigrated about their STI and HIV status because they are seen as untrustworthy (Brewster & Moradi, 2010). Although bisexual men do report lower rates of HIV testing (Jeffries, 2010) and condom use (Stokes et al., 1993), it is naive to assume this finding translates to bisexual individuals as carriers of STIs. Nonetheless, bisexual men face social marginalization, discrimination, and hostility from the gay and straight populations (Mulick & Wright, 2011), and researchers are cognizant that these forms of prejudice in minority groups engender negative health and self-care behaviors (Kennedy & Doll, 2011). Because HIV testing does not generally target the bisexual community, there is a perceived lower risk of HIV and STI infection among bisexual individuals themselves, despite their heightened risk (Evans, Bond, & McRae, 1998).

Second, Mohr and Rochlen (1999) identified the "instability" dimension of bisexuality, or the perception that bisexuality is an unstable and illegitimate identity, because bisexual individuals are seen as temporarily experimenting or in denial about their "true" sexual orientation. Skepticism regarding the legitimacy of a bisexual identity is prevalent not only in the popular media, but in academia as well (Dodge, Reece, & Gebhard, 2008). Indeed, Dodge and colleagues (2008) summarize the overall perception of bisexual people as either "gay, straight, or lying" (p. 184). Such a belief contributes to the perception that bisexual people are promiscuous and unable to maintain monogamous relationships (Wright et al., 2011). At the heart of this discrimination is mistrust and fear of bisexual individuals because they are perceived to be in an ambiguous state (Klesse, 2011). The bisexual identity is seen as a problematic, transient orientation that is the result of an individual's indecisiveness, lack of self-knowledge, denial, and/or cowardice (Klesse, 2011), a perception that has the potential to elicit damaging dynamics in bisexual individuals' relationships. For example, nonbisexual individuals with bisexual partners may worry that their partner will realize their "true" identity and reveal that they are much more attracted to the same gender (Klesse, 2011), supplying enduring uncertainties for those who desire monogamy (Klesse, 2011). A partner's bisexuality may then become the lens through which to project explanations for myriad unrelated relationship problems (Klesse, 2011). Ultimately one can surmise how it

happens that many of the prejudices bisexual individuals face can create a situation where cultural ideas inform behaviors that reinforce negative stereotypes.

Despite these stability and legitimacy speculations, the bisexual identity has been shown to be relatively stable across time (Diamond, 2008; Stokes et al., 1993). Nonetheless, one can surmise how this biphobic attitude is rooted in historical conceptualizations of bisexuality that are not only heterosexist, but also monosexist. Emerging in the 1850s, the term 'bisexuality' was introduced during the surging popularity of Darwinism to describe plants, animals, and human ancestors who were believed to be sexually undifferentiated and androgynous (MacDowall, 2009). Physiologists and anatomists argued a two-sexed human model, versus the prior one-sexed model that stipulated women as an anatomically lesser variation of men (MacDowall, 2009). This new two-sexed model contended that men and women had rudimentary differences that could be tied to unique biological features (MacDowall, 2009). A tenet of this theory was that bisexuality represented an adolescent, primitive, and uncivilized stage of human existence necessary for the underpinning of a modern human sexuality consisting of two distinct, differentiated sexes. In fact, Angelides (2001) asserts that this notion of modern human sexuality during the Victorian era was one manner in which privileged ideas about the distinction between human and animal relegated bisexuality to a subhuman behavior.

Extending from this model, the foundation for contemporary monosexist and heterosexist ideas were born. Yoshino (2000) reasoned that the entitlement of 'straight' and 'gay' requires the entitlement of 'man' and 'woman.' To this end, contemporarily familiar uses of the term 'bisexuality' emerged in the early 1900s as medical research spilled into the burgeoning field of psychology; bisexuality became associated with feminine and masculine characteristics and/or sexual attraction to men and women within one individual (MacDowall, 2009). Presently, these historical artifacts influence contemporary monosexist and heterosexist thoughts on the illegitimate essence of a bisexual identity.

However, these attitudes manifest differently when examining the variance between perceptions of bisexual men and bisexual women (Brewster & Moradi, 2010). Simply put, these differences have been delineated with "the one drop rule" (Anderson, 2008; Callis, 2013). If a man has sexual contact with another man once, he is considered gay, whereas if a woman has different-gender sex once, she is actually heterosexual (Anderson, 2008; Callis, 2013). If a commonly held belief is that bisexual men are actually gay, and bisexual women are actually straight, the higher levels of biphobia perceived by, and against, bisexual men from heterosexual men/women, lesbians, and gay men is explained (Brewster & Moradi, 2010). Yet these convictions about bisexuality do not apply to perceptions of all individuals who identify with plurisexual identities. Although pansexual, queer, and fluid self-identified individuals report similar perceptions of sexual prejudices from heterosexual individuals, compared to bisexuals, these individuals report less discrimination from lesbians and gay men (Mitchell, Davis, & Galupo, 2015). Accordingly,

Rubinstein, Makov, and Sarel (2013) highlight that with nonbisexual plurisexual individuals, the gender binary is minimized, and with this minimization prejudices are also reduced.

In all, the use of the term and identity of bisexuality has seen extensive use from the 19th century to the modern era as a representation of transitional, and unevolved behavior that bolsters boundaries of monosexism and heterosexism. Indeed, the separation of privileged heterosexual and monosexual identities reinforces a morally superior “us-them” standard (Eliason, 2000). Some argue that as bisexual individuals work to become more visible, biphobia fortifies in parallel, buttressing sexual and gender binaries (Callis, 2013; Eliason, 2000). From a heterosexual and monosexual perspective, then, bisexuality must exist as a historical artifact, whether in primordial vestiges, or adolescent liminality, to elevate heterosexuality and monosexuality as evolved, modern entities of sexuality.

Biphobia among lesbians and gay men

Although those outside of the LGBTQ community may think the use of this acronym affords group cohesion, qualitative research has identified that many bisexual people experience discrimination at the hands of lesbians and gay men (Ross et al., 2010). Many bisexual individuals claim that the stereotypes straight people perpetuate about bisexuality—such as confusion of sexuality or inability to maintain monogamous relationships—are the same stereotypes that lesbians and gay men hold (McLean, 2008; Weiss, 2003). However, few quantitative studies assessing lesbians’ and gay men’s perceptions of bisexuality have been conducted.

Those that do quantitatively measure lesbians’ and gay men’s perceptions of bisexuality are fraught with the problems attributable to small sample sizes (Mohr & Rochlen, 1999; Mulick & Wright, 2002). Nonetheless, despite the limited research, some trends have emerged. As an illustration, Mulick and Wright used a sample of only 18 gay men and seven lesbians to develop their biphobia scale, noting that their sample was not large enough to generalize from their data. Although their gay male and lesbian participants scored lower on the biphobia scale than did heterosexuals, the majority did indeed demonstrate biphobia (Mulick & Wright, 2002), a concerning finding given that even mild levels of biphobia have been shown to engender a hostile living environment for bisexual individuals (Mulick & Wright, 2011).

Cox, Bimbi, and Parsons (2013) assessed 1,156 gay men and 227 lesbians’ perceptions of bisexual individuals in relation to the degree of contact they had with bisexual people. Contrary to the contact hypothesis, these authors found that increased contact with bisexual individuals resulted in more discriminatory attitudes (Cox et al., 2013). Cox and colleagues attributed this finding to bisexual people being viewed as out-group members. Overall, studies have indicated that bisexual men are targets of the greatest discrimination and that gay men view bisexual men quite negatively. Although lesbians are more accepting than gay

men, they too discriminate against bisexual individuals (Cox et al. 2013; Mohr & Rochlen, 1999; Mulick & Wright, 2002; Welzer-Lang, 2008).

Despite such findings, the research on gay men and lesbians' perceptions of bisexuality is generally limited, making it difficult to draw solid conclusions about gay perceptions. Though this is clearly an important area of study in biphobia research, obtaining large enough samples of gay men and women is often challenging for researchers. Hence, most research on biphobia focuses on heterosexual perceptions of bisexuality (Mulick & Wright, 2002, 2011; Steffens & Wagner, 2004; Yost & Thomas, 2012).

Biphobia among heterosexual individuals

In a recent meta-analysis, Katz-Wise and Hyde (2012) reported on 386 studies that looked at the discrimination LGBTQ individuals encountered from the heterosexual population. Although comprehensive, a major limitation of this meta-analysis was the amalgamative approach the majority of studies took by examining LGBTQ participants as an aggregate instead of as separate entities (Katz-Wise & Hyde, 2012; Weiss, 2003). Although studies on heterosexuals' biphobia (as distinct from general LGBTQ discrimination) are limited, the corpus of existing research suggests some overall trends. That is, many heterosexual individuals report mild to moderate levels of biphobia (Herek, 2002; Mohr & Rochlen, 1999; Mulick & Wright 2002, 2011; Steffens & Wagner, 2004; Yost & Thomas, 2012). Bisexual men and women are rated more negatively than lesbians and gay men, and this is especially true for bisexual men (Herek, 2002; Steffens & Wagner, 2004). When studies include open-ended questions for participants to articulate their perceptions of bisexuality, bisexuality is not viewed as a "real" orientation for men—any sexual experience with another man suggests a masked gay identity (Herek, 2002; Steffens & Wagner, 2004). Studies also indicate that although straight women hold more positive perceptions of bisexual individuals in general (Herek, 2002; Mohr & Rochlen 1999; Mulick & Wright, 2002, 2011; Steffens & Wagner, 2004; Yost & Thomas, 2012), straight men rate bisexual men more harshly than they rate bisexual women (Herek, 2002; Mohr & Rochlen, 1999; Steffens & Wagner, 2004; Yost & Thomas, 2012).

The present study

The primary purpose of the present study was to assess whether information detailing bisexuality as a legitimate or illegitimate sexual orientation would affect straight, lesbian, gay men, and bisexual individuals' levels of biphobia. Specifically, we explored how providing individuals with accurate or inaccurate information about bisexual men would influence levels of biphobia. We hypothesized that the perception of bisexual men would be dependent on the type of information (accurate or inaccurate) we presented to participants, and we focused specifically on bisexual men given previous findings that they are evaluated most negatively

overall by straight, lesbian, and gay participants (see Herek, 2002; Steffens & Wagner, 2004). Also based on findings from previous research, we hypothesized that straight participants would endorse greater biphobic attitudes than either gay or bisexual participants. Our final hypothesis was that men, regardless of sexual orientation, would exhibit more biphobic attitudes than women.

Method

Participants

The sample consisted of 306 participants ranging in age from 14–59 years ($M_{age} = 21$), with 67% of respondents identifying as female ($n = 204$), and 33% as male ($n = 102$). A total of 39 participants were excluded from the study, as they failed to provide sufficient information necessary for statistical analysis.

The sample obtained was not representative in terms of sexual orientation, as there were higher percentages of lesbian, gay, and bisexual individuals than expected from previous demographic research (Chandra et al., 2011; Smith, Hout, & Marsden, 2013). However, we purposely targeted LGBTQ participants to study biphobia within these populations. Straight identified participants made up 67% of the sample ($n = 204$), with 23% identifying as bisexual ($n = 71$), and 10% as lesbian/gay/queer ($n = 31$). Chi-square analyses indicated non-significant differences between participants on measures of ethnicity, $\chi^2(6, N = 306) = 4.12, p = .66$, country of origin, $\chi^2(52, N = 306) = 4.12, p = .218$, or religion, $\chi^2(20, N = 306) = 15.86, p = .725$.

Measures

Demographic information

Participants were asked to provide information on their age, gender, ethnicity, current relationship status, and sexual orientation.

The Biphobia Scale—Modified Male Version

The Biphobia Scale—Modified Male Version (Mulick & Wright, 2011) is a 48-item questionnaire that assesses attitudes toward bisexual individuals by examining cognitions, affect, and behavioral indicators. For example, participants were asked to rate statements such as “all bisexual men are promiscuous,” or “I do not think bisexual men are capable of monogamy.” Responses were scored on a 6-point Likert-type scale ranging from 0 (*strongly disagree*) to 5 (*strongly agree*). Total scores range from 0 to 235, where higher scores indicate greater endorsement of biphobia. Scores of 0 to 47 indicate mild biphobia, scores of 48 to 116 indicate moderate biphobia, and scores of 117 to 235 indicate severe biphobia. In the present study, Cronbach’s alpha was established at $\alpha = .96$.

Materials

Two actual unmodified news articles were used in the present study. One of these news articles, based on a 2005 study refuting the existence of bisexuality (Rieger et al., 2005), was indicated as the illegitimate identity article condition. This article was a *New York Times* piece about a study that was meant to illustrate that bisexuality is not a legitimate orientation. The researchers claimed that men identifying as bisexual were in fact gay men and concluded that truly bisexual men do not actually exist (Rieger et al., 2005). The second news article, based on a 2011 study confirming the existence of bisexual individuals (Rosenthal, Sylva, Safron, & Bailey, 2011), was indicated as the legitimate identity article condition. Also a *New York Times* piece, the legitimate identity news article argued that bisexuality in men is a legitimate orientation. As a follow-up to the 2005 study, this newer research indicated that bisexual men did exist, and that previous findings (i.e., the illegitimate identity article) used poor methods that skewed the results (Rosenthal et al., 2011).

Procedure

Participants were recruited through two different avenues: 37% were solicited through the research participant pool of a large western Canadian university, and the remainder via snowball sampling through several online forums/websites geared toward, but not exclusively used by, an LGBTQ audience. The websites used to recruit participants included Reddit, Tumblr, and local LGBTQ friendly Facebook groups. For all participants, the study was advertised as research on human sexuality and relationships, and participants were given a link to complete an anonymous, randomized online survey (www.fluidsurveys.com). Randomized conditions included the legitimate identity article condition, the illegitimate identity article condition, or a control condition where no article was given. In the legitimate or illegitimate article conditions, participants were asked to first read the article, and then participants in all three groups completed the biphobia scale and answered the demographic questions. Completion of the entire survey took approximately 30 minutes.

Results

A 2 (gender) \times 3 (sexual orientation [bisexual, gay, straight]) \times 3 (legitimate identity article condition, illegitimate identity article condition, control condition) factorial ANOVA was conducted to evaluate the effects of gender, sexual orientation, and article condition on a measure of biphobia. Univariate follow-up analysis of variance tests were conducted with a Bonferroni adjusted alpha of .01. Means, standard deviations, and sample size as a function of the three factors are presented in Table 1.

Results indicated a non-significant main effect of article condition, $F(2, 288) = .762$, $p = .467$, partial $\eta^2 = .005$, a nonsignificant interaction between gender and

Table 1. Means, standard deviations and sample sizes for biphobia scores by gender, article condition, and sexual orientation.

Participant Gender	Article Condition	Participant Sexuality	<i>M</i>	<i>SD</i>	<i>n</i>	95% Confidence Interval	
						Lower	Upper
Female	No article	Bisexual	16.87	20.63	15	2.03	31.70
		Gay/queer	28.20	31.35	5	2.51	53.89
		Straight	32.46	26.98	57	24.85	40.07
	Illegitimate identity	Bisexual	11.50	7.01	10	-6.67	29.67
		Gay/queer	8.00	2.00	3	-25.17	41.17
		Straight	31.77	23.84	44	23.11	40.43
	Legitimate identity	Bisexual	10.54	5.11	13	-5.40	26.47
		Gay/queer	17.00	14.11	5	-8.69	42.69
		Straight	39.06	34.93	52	31.09	47.02
Male	No article	Bisexual	12.92	6.02	13	-3.01	28.86
		Gay/queer	38.78	62.16	9	19.63	57.93
		Straight	39.44	28.85	27	28.39	50.50
	Illegitimate identity	Bisexual	17.08	8.67	12	0.50	33.67
		Gay/queer	34.00	25.53	5	8.31	59.69
		Straight	27.00	20.64	11	9.68	44.32
	Legitimate identity	Bisexual	16.88	6.22	8	-3.44	37.19
		Gay/queer	9.00	4.90	4	-19.72	37.72
		Straight	73.69	61.56	13	57.76	89.63

article condition, $F(2, 288) = .190$, $p = .827$, partial $\eta^2 = .001$, and an overall non-significant interaction among gender, sexual orientation, and article condition, $F(4, 288) = 1.756$, $p = .138$, partial $\eta^2 = .024$. However, a significant interaction between sexual orientation and article condition— $F(4, 288) = 3.325$, $p = .011$, partial $\eta^2 = .044$ —was observed. Simple effects analysis indicated significant differences only in the no article, $F(2, 297) = 4.81$, $p = .009$, and the legitimate identity article conditions, $F(2, 297) = 12.62$, $p < .001$.

Follow-up tests evaluated the three pairwise differences among the means for the no article and legitimate identity article conditions. Bisexual participants in the no article condition reported significantly lower biphobia scores ($M = 15.04$, $SD = 15.52$) than straight participants ($M = 34.70$, $SD = 27.61$, $p = .003$). No other mean comparisons in the no article condition reached statistical significance. Bisexual participants in the legitimate identity article condition also reported significantly lower biphobia scores ($M = 12.95$, $SD = 6.26$) relative to straight participants ($M = 45.98$, $SD = 43.33$, $p < .001$). In addition, gay participants ($M = 13.44$; $SD = 11.24$) had significantly lower biphobia scores than straight participants ($p < .002$). No significant differences between bisexual and gay participants in the legitimate identity article condition were observed. [Figure 1](#) illustrates these findings.

We also predicted significantly different biphobia scores among participants dependent on their sexual orientation, with straight participants expected to endorse the highest discriminatory attitudes toward bisexual people overall. As expected, results indicated a significant main effect of sexual orientation, $F(2, 288) = 19.633$, $p < .001$, partial $\eta^2 = .120$, with straight participants reporting the highest biphobia scores overall.

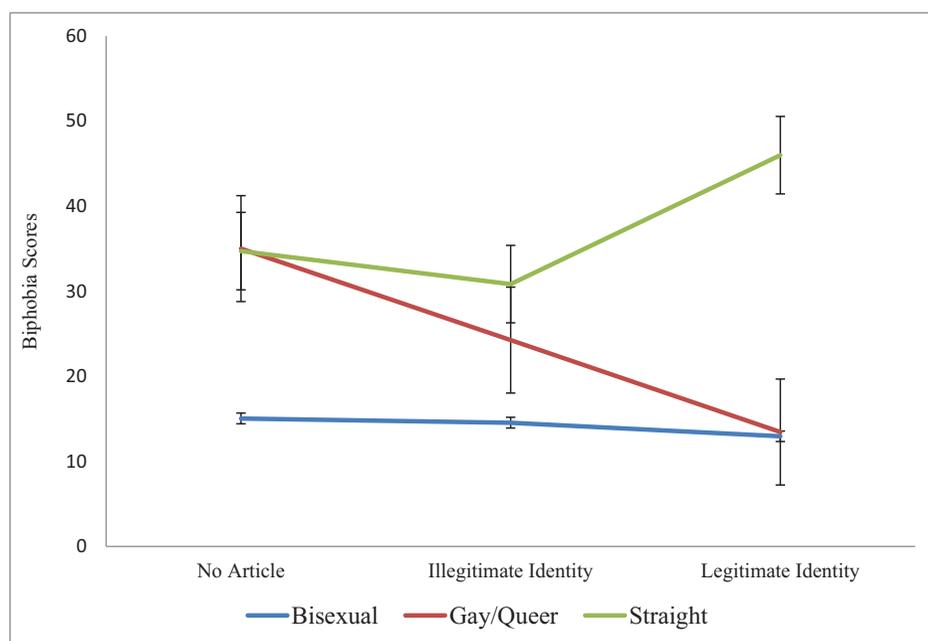


Figure 1. Means for biphobia scores by article condition and sexual orientation.

Finally, significantly different biphobia scores were not found between males and females, $F(1, 288) = 3.030$, $p = .083$, partial $\eta^2 = .010$, though results were in the expected direction, with males reporting higher biphobia scores than females.

Discussion

The current study contributes to our understanding of bisexuality and discrimination by suggesting that the provision of informational material about bisexuality can influence people's perceptions of bisexual individuals. Exposure to accurate and inaccurate news articles about bisexuality as a legitimate sexual orientation were related to levels of biphobia among bisexual, straight, and gay/queer participants. This study is a step toward illustrating how information presented on sexual orientation legitimacy can effect individuals' perception of bisexuality.

Our first hypothesis was that perceptions of bisexual men would be influenced by which article participants received. We assumed that the legitimate identity article would serve as an educational tool that would contribute to a decrease in participant levels of biphobia—as the focus of the legitimate identity article was to confirm the legitimacy of bisexuality as a sexual orientation—and given previous research indicating that discrimination towards bisexual individuals is geared toward doubt that bisexuality actually exists (Herek, 2002; Steffens & Wagner, 2004). Moreover, in their recent set of guidelines for intervention efforts to reduce binegativity, Dyar, Lytle, London, and Levy (2015) recommended the use of accurate information about bisexuality through multicultural education interventions.

Dyar and colleagues cite the article utilized in the present study's legitimate article condition (e.g., see Rosenthal et al., 2011) as information that could potentially reduce biphobic attitudes. In contrast, we assumed that the illegitimate identity article would reinforce discriminatory attitudes toward bisexual men, as the article would serve to confirm that bisexual men did not exist and that bisexual men were really gay men in denial. Unexpectedly, our results revealed that participants who read the legitimate identity article showed elevated levels of biphobia compared to participants in the two other conditions. Further, for all sexual orientations represented in this study, participants exposed to the illegitimate identity article showed the lowest scores as a group. We also hypothesized that straight participants would hold greater biphobic attitudes than either gay/queer or bisexual participants. As expected, findings did indicate that sexual orientation was a significant factor in determining levels of biphobia, specifically in the comparison between straight and gay participants in both article manipulations, as well as between straight and bisexual participants across all three manipulations.

Although males did not demonstrate significantly higher biphobia scores than females, results were in the expected direction, as consistent with previous research (see Herek, 2002; Mohr & Rochlen 1999; Steffens & Wagner, 2004; Yost & Thomas, 2012). Interestingly, when all sexual orientations were collapsed, males held more biphobic attitudes across all conditions. Yet the overall difference in attitudes between genders was minimal because straight women in the negative article condition—and lesbians in the positive article condition—reported higher biphobia scores than all men. These scores changed the means between genders. Regardless, on the whole, men reported the highest levels of biphobia in each experimental condition, possibly reflecting the view that men tend to hold more prejudicial views in general (Herek, 2002; Mohr & Rochlen 1999; Mulick & Wright, 2002, 2011; Steffens & Wagner, 2004; Yost & Thomas, 2012). Given past research on the effectiveness of interventions aimed at reducing sexual minority discrimination (Bartos, Berger, & Hegarty, 2014), and recommendations on testing interventions that are likely to reduce binegativity (Dyar et al., 2015), the results of this study present as counterintuitive. However, a glaring issue in sexual prejudice research—and in research exploring prejudice reduction interventions—is the blending of bisexual men and women with gay men and lesbians into one conglomerate, assuming that bisexual men and women are prejudicially perceived the same as lesbians and gay men. Further, few studies have investigated the effects of prejudice reduction interventions specifically with regard to bisexual individuals (Dyar et al., 2015). Rather, recommendations about interventions to reduce binegativity are assumed to succeed on the basis that the recommended interventions have worked for reducing homophobia toward lesbians and gay men (Dyar et al., 2015). In short, speculations about the effectiveness of prejudice reduction interventions for lesbians and gay men may be rooted in the same monosexist views contributing to bisexual erasure that obscure the unique perception of bisexual people by straight, gay, and lesbian individuals.

A close examination of the idiosyncratic ways in which information about sexual minorities is processed may shed light on the unexpected results of the present study. According to Allport's (1954) social contact theory, increased contact with minority groups by majority groups should decrease the majority group's negative feelings toward the minority group and increase positive feelings. Indeed, this theory has gained support in that evidence has demonstrated reduced prejudice toward racial minorities and sexual minorities (Pettigrew & Tropp, 2006). Moreover, the robustness of social contact theory has been substantiated through direct social contact, indirect social contact, and imagined social contact (Dyar et al., 2015). Yet Cox and colleagues (2013) observed that gay men and lesbians' increased contact with bisexual people predicted higher levels of binegativity. Specifically, how often participants dated and had sexual relations with bisexual individuals was significantly positively correlated with binegativity (Cox et al., 2013). In addition, participant demographic characteristics, such as ethnicity and gender, mediated differing incidents of binegativity (Cox et al., 2013).

These findings highlight the critical importance of contextual elements in social contact theory. To be sure—even among gay men and lesbians, where the social contact theory has been shown to have the greatest effects (Pettigrew & Tropp, 2006)—Costa, Pereira, and Leal (2015) reported a positive correlation between prejudice and frequency of contact with gay men and lesbians, illustrated by their Portuguese male and Catholic participants. Although the geographical region in this study is to be considered, the researchers note that contact may have been involuntary acquired through occupational circumstances, contributing to a negative affect that has been theorized to neutralize the positive effects of social contact (Vezzali, Giovannini, & Capozza, 2010).

Social contact theory is intertwined with the strength of individuals' existing predispositions and how they cognitively and affectively draw a conclusion about the social contact they have with an out-group member (Skipworth, Garner, & Dettrey, 2010; Vezzali et al., 2010). In the conditions of the present study, participants experienced imagined social contact in the course of reading a news article, and/or completing a survey about their attitudes toward bisexual men. As demonstrated above, the type and context of social contact that an individual has can be affiliated with increases in homonegativity (Costa et al., 2015) and binegativity (Cox et al., 2013). In this sense, the limiting factors (Pettigrew & Tropp, 2006) of social contact theory may provide a framework to understand the results of the present study.

Although personal storytelling about experiences of living as an LGBTQ individual has been illustrated to highlight commonalities and diminish differences among straight, gay, lesbian, and bisexual individuals, Conover (2005) found that storytelling related to political policies such as same-sex marriage can create a breeding ground for backlash and increased sexual minority prejudice. In addition, Bronson (2005) identified a critical distinction in the dissemination of information about bisexual identity. When participants in Bronson's study were given "factual" information about the stability of bisexual identities, measurable increases in

tolerance toward bisexual individuals were observed. However, when participants read “story-based” information about bisexuality, measurable decreases in acceptance toward bisexuality was observed and confidence in the stability of bisexual men’s identity declined (Bronson, 2005). In the present study, participants read news articles that presented a factual relaying of information, in addition to a personal narrative responding to the factual information from bisexual individuals. Considering the above findings, this study lends further support to Bronson’s (2005) discovery that the presentation format of information about bisexual men may deleteriously influence individuals’ perceptions of bisexual men.

There were several limitations to the present study. One major limitation resides in the insufficient size of the LGBTQ sample, limiting our ability to draw decisive conclusions. Because of the lack of LGBTQ representation, the formation of a gay group for comparison purposes involved collapsing two self-identified sexual orientations (gay and queer). Although collapsing sexual orientations did result in a slightly larger sample size, and did not change the significance or direction of this group’s findings when groups were not collapsed, the reliability of the conclusions drawn from this blended and small sample are still unknown. Similarity, because of the overall sample size, and participants’ randomization into each condition, some conditions had lower than desired samples of heterosexual men (see Table 1). In addition, though social desirability was arguably controlled for by running the present study online, the possibility remains that participants still answered in socially desirable ways.

Future research should examine the influence of other common bisexual representations, such as the notion of bisexual individuals being promiscuous or disease carriers (Brewster & Moradi, 2010) to determine if the current study’s findings are unique to the legitimacy aspect of biphobia, or representative of a broader perceptual pattern. Moreover, researchers should investigate biphobia scores produced by bisexual individuals to ascertain whether internalized biphobia is stable in the presence of other variables. Finally, a study exploring the use of a more involved portrayal of bisexual individuals, such as an educational workshop, may produce more distinctive results.

Previous research has shown the existence of biphobia in heterosexual and gay populations, but research on how education affects perceptions of bisexuality has only recently been discussed. This study examined whether accurate or inaccurate information provided to participants about the legitimacy of bisexual men’s sexual orientation reduces biphobia. Although our results were unexpected, the underlying argument of this study remains the same: understanding effective educational methods is key to changing inimical attitudes. Over the last 50 years, views of lesbians and gay men in popular culture have shifted dramatically, from an orientation that individuals should hide to one that can be celebrated openly. By understanding how to create better resources and educational tools that attempt to dispel all stereotypes surrounding bisexuality, it may be possible to reduce the biphobic attitudes that are so prevalent in society.

Notes on contributors

Katheryn E. Morrison graduated with a Bachelor of Arts (BA) degree in Psychology (Honours) from Kwantlen Polytechnic University in May 2015, and has begun graduate studies at University of British Columbia. Katheryn's main interest in human sexuality research includes the types of discrimination bisexual individuals face from the gay and straight communities. Other areas of research interest include sexual orientation, discrimination against sexual minorities, and victim blaming after sexual assault.

Jordan M. Gruenhagen graduated with his BA in Psychology and a minor in Counselling (with distinction) from Kwantlen Polytechnic University in May 2015. Through his studies, he has developed research interests in gender construction and sexuality, and the interplay of these elements with identity perception and formation.

Cory L. Pedersen earned her PhD in developmental psychology from the University of British Columbia in 2004. After teaching many years as a graduate student at UBC and sessional instructor at Kwantlen, Cory was hired full-time at Kwantlen Polytechnic University in 2005. Her interest in human sexuality began in 2007, with research on developmental trends in the adolescent sexual timetable. She developed the very popular course Psychology 3010 (Human Sexuality) in 2008 and has been immersed in sexology ever since. By 2012, and several sexology honours students later, Cory had founded the ORGASM (Observations and Research in Gender and Sexuality Matters) Research Lab to further her interests, while giving students the opportunity to gain valuable research experience. Indeed, several collaborative projects with the lab have been presented at respected psychology conferences and are in submission for publication.

References

- Anderson, E. (2008). "Being masculine is not about who you sleep with...": Heterosexual athletes contesting masculinity and the one-time rule of homosexuality. *Sex Roles*, 58(1), 104–115. doi:10.1007/s11199-007-9337-7
- Allport, G. W. (1954). *The nature of prejudice*. Cambridge, MA: Addison-Wesley.
- Angelides, S. (2001). *A history of bisexuality*. Chicago, IL: University of Chicago Press.
- Bartos, S. E., Berger, I., & Hegarty, P. (2014). Interventions to reduce sexual prejudice: A study-space analysis and meta-analytic review. *Journal of Sex Research*, 51, 363–382. doi:10.1080/00224499.2013.871625
- Brewster, M., & Moradi, B. (2010). Perceived experiences of anti-bisexual prejudice: Instrument development and evaluation. *Journal of Counseling Psychology*, 57(4), 451–468. doi:10.1037/a0021116
- Bronson, J. C. (2005). *Examining the efficacy of fact-based and personal-story-based information on attitudes towards bisexuality* (unpublished doctoral dissertation). Available from ProQuest Dissertations and Theses database. (UMI No. 3187654)
- Callis, A. S. (2013). The black sheep of the pink flock: Labels, stigma, and bisexual identity. *Journal of Bisexuality*, 13(1), 82–105. doi:10.1080/15299716.2013.755730

- Chandra, A., Mosher, W. D., & Copen, C. (2011). Sexual behavior, sexual attraction, and sexual identity in the United States: Data from the 2006–2008 National Survey of Family Growth. *National Health Statistics Reports*, 36, 1–36
- Conover, P. J. (2005, September). *The same-sex marriage rebellion: Storytelling and its consequences*. Paper presented at the annual meeting of the American Political Science Association, Washington, DC. Abstract received from http://citation.allacademic.com/meta/p_mla_apa_research_citation/0/4/1/6/0/p41600_index.html
- Costa, P. A., Pereira, H., & Leal I. (2015). “The contact hypothesis” and attitudes toward same-sex parenting. *Sexuality Research and Social Policy*, 12(2), 125–136. doi:10.1007/s13178-014-0171-8
- Cox, S., Bimbi, D. S., & Parsons, J. T. (2013). Examination of social contact on binegativity among lesbians and gay men. *Journal of Bisexuality*, 13(2), 215–228. doi:10.1080/15299716.2013.782596
- Diamond, L. (2008). Female bisexuality from adolescence to adulthood: Results from a 10-year longitudinal study. *Developmental Psychology*, 44(1), 5–14. doi:10.1037/0012-1649.44.1.5
- Dodge, B., Reece, M., & Gebhard, P. (2008). Kinsey and beyond: Past, present, and future considerations for research on male bisexuality. *Journal of Bisexuality*, 8(3/4), 175–189. doi:10.1080/15299710802501462
- Dyar, C., Lytle, A., London, B., & Levy, S. R. (2015). Application of bisexuality research to the development of a set of guidelines for intervention efforts to reduce binegativity. *Translational Issues in Psychological Science*, 1(4), 352–362. doi:10.1037/tps0000045
- Eliason, M. (2000). Bi-negativity: The stigma facing bisexual men. *Journal of Bisexuality*, 1(2), 137–154. doi:10.1300/J159v01n02_05
- Evans, B., Bond, R., & McRae, K. (1998). Heterosexual behaviour, risk factors, and sexually transmitted infections among self-classified homosexual and bisexual men. *International Journal of STDs and AIDS*, 9(3), 129–133. doi:10.1258/0956462981921873
- Herek, G. (2002). Heterosexuals’ attitudes toward bisexual men and women in the United States. *Journal of Sex Research*, 39(4), 264–274. doi:10.1080/00224490209552150
- Hoang, M., Holloway, J., & Mendoza, R. H. (2011). An empirical study into the relationship between bisexual identity congruence, internalized biphobia and infidelity among bisexual women. *Journal of Bisexuality*, 11(1), 23–28. doi:10.1080/15299716.2011.545285
- Jeffries, W. (2010). HIV testing among bisexual men in the United States. *AIDS Education and Prevention*, 22(4), 356–370. doi:10.1521/aeap.2010.22.4.356
- Katz-Wise, S. L., & Hyde, J. S. (2012). Victimization experiences of lesbian, gay, and bisexual individuals: A meta-analysis. *Journal of Sex Research*, 49(2), 142–167. doi:10.1080/00224499.2011.637247
- Kennedy, M., & Doll, L. (2000). Male bisexuality and HIV risk. *Journal of Bisexuality*, 1(2/3), 109–135. doi:10.1300/J159v01n02_04
- Klesse, C. (2011). Shady characters, untrustworthy partners, and promiscuous sluts: Creating bisexual intimacies in the face of heteronormativity and biphobia. *Journal of Bisexuality*, 11(2/3), 227–244. doi:10.1080/15299716.2011.571987
- MacDowall, L. (2009). Historicising contemporary bisexuality. *Journal of Bisexuality*, 9(1), 3–15. doi:10.1080/15299710802659989
- McLean, K. (2008). Inside, outside, nowhere: Bisexual men and women in the gay and lesbian community. *Journal of Bisexuality*, 8(1/2), 63–80. doi:10.1080/15299710802143174
- Mitchell, R. C., Davis, K. S., & Galupo, M. P. (2015). Comparing perceived experiences of prejudice among self-identified plurisexual individuals. *Psychology & Sexuality*, 6(3), 245–257. doi:10.1080/19419899.2014.940372

- Mohr, J., & Rochlen, A. (1999). Measuring attitudes regarding bisexuality in lesbian, gay male and heterosexual populations. *Journal of Counseling Psychology*, 46(3), 353–369. doi:10.1037/0022-0167.46.3.353
- Mulick, P. S., & Wright, L. W. (2002). Examining the existence of biphobia in the heterosexual and homosexual populations. *Journal of Bisexuality*, 2(4), 45–64. doi:10.1300/J159v02n04_03
- Mulick, P. S., & Wright, L. W. (2011). The biphobia scale a decade later: Reflections and additions. *Journal of Bisexuality*, 11(4), 453–457. doi:10.1080/15299716.2011.620486
- Ochs, R. (1996). Biphobia: It goes more than two ways. In B. A. Firestein (Ed.), *Bisexuality: The psychology and politics of an invisible minority* (pp. 217–239). New York, NY: Sage.
- Pettigrew, T. F., & Tropp, L. R. (2006). A meta-analytic test of intergroup contact theory. *Journal of Personality and Social Psychology*, 90(5), 751–783. doi:10.1037/0022-3514.90.5.751
- Rieger, G., Chivers, M. L., & Bailey, J. M. (2005). Sexual arousal patterns of bisexual men. *Psychological Science*, 16(8), 579–584. doi:10.1111/j.1467-9280.2005.01578.x
- Rosenthal, A. M., Sylva, D., Safron, A., & Bailey, J. M. (2011). Sexual arousal patterns of bisexual men revisited. *Biological Psychology*, 88(1), 112–115. doi:10.1016/j.biopsycho.2011.06.015
- Ross, L., Dobinson, C., & Eady, A. (2010). Perceived determinants of mental health for bisexual people: A qualitative examination. *American Journal of Public Health*, 100(3), 496–502. doi:10.2105/AJPH.2008.156307
- Rubinstein, T., Makov, S., & Sarel, A. (2013). Don't bi-negative: Reduction of negative attitudes toward bisexuals by blurring the gender dichotomy. *Journal of Bisexuality*, 13(3), 356–373. doi:10.1080/15299716.2013.813419
- Schick, V., & Dodge, B. (2012). Introduction to the special issue: Bisexual health: Unpacking the paradox. *Journal of Bisexuality*, 12(2), 161–167. doi:10.1080/15299716.2012.674849
- Skipworth, S., Garner, A., & Dettrey, B. (2010). Limitations of the contact hypothesis: Heterogeneity in the contact effect on attitudes toward gay rights. *Politics & Policy*, 35(5), 887–906. doi:10.1111/j.1747-1346.2010.00262.x
- Smith, T. W., Hout, M., & Marsden, P. V. (2013). *General social survey, 1972–2012 [cumulative file]* (Catalogue no. 34802). Retrieved from ICPSR website: <http://www.icpsr.umich.edu/icpsrweb/ICPSR/studies/34802>
- Steffens, M., & Wagner, C. (2004). Attitudes towards lesbians, gay men, bisexual women, and bisexual men in Germany. *Journal of Sex Research*, 41(2), 137–149. doi:10.1080/00224490409552222
- Stokes, J., McKirnan, D., & Burzette, R. (1993). Sexual behavior, condom use, disclosure of sexuality, and stability of sexual orientation in bisexual men. *Journal of Sex Research*, 30(3), 202–213. doi:10.1080/00224499309551704
- Vezzali, L., Giovannini, D., & Capozza, D. (2010). Longitudinal effects of contact on intergroup relations: The role of majority and minority group membership and intergroup emotions. *Journal of Community & Applied Social Psychology*, 20, 462–479. doi:10.1177/1745691610369465.1002/casp.1058
- Volpp, S. Y. (2010). What about the “B” in LGB: Are bisexual women’s mental health issues same or different? *Journal of Gay & Lesbian Mental Health*, 14(1), 41–51. doi:10.1080/19359700903416016
- Weiss, J. T. (2003). GL vs. BT. *Journal of Bisexuality*, 3(3/4), 25–55. doi:10.1300/J159v03n03_02
- Welzer-Lang, D. (2008). Speaking out loud about bisexuality: Biphobia in the gay and lesbian community. *Journal of Bisexuality*, 8(1/2), 81–95. doi:10.1080/15299710802142259
- Wright, L. W., Bonita, A. G., & Mulick, P. S. (2011). An update and reflections on fear of discrimination against bisexuals, homosexuals, and individuals with AIDS. *Journal of Bisexuality*, 11(4), 458–464. doi:10.1080/15299716.2011.620802

- Wright, L. W., Mulick, P. S., & Kincaid, S. B. (2007). Fear of and discrimination against bisexuals, homosexuals, and individuals with AIDS. *Journal of Bisexuality*, 6(4), 71–84. doi:10.1300/J159v06n04_06
- Yoshino, K. (2000). The epistemic contract of bisexual erasure. *Stanford Law Review*, 52(2), 353–461. doi:10.2307/1229482
- Yost, M. R., & Thomas, G. D. (2012). Gender and binegativity: Men's and women's attitudes toward male and female bisexuals. *Archives of Sexual Behavior*, 41, 691–702. doi:10.1007/s10508-01109767-8