



Article scientifique

Article

2014

Published version

Open Access

This is the published version of the publication, made available in accordance with the publisher's policy.

---

Maintaining distinctions under threat: Heterosexual men endorse the  
biological theory of sexuality when equality is the norm

---

Falomir Pichastor, Juan Manuel; Hegarty, Peter

**How to cite**

FALOMIR PICHASTOR, Juan Manuel, HEGARTY, Peter. Maintaining distinctions under threat: Heterosexual men endorse the biological theory of sexuality when equality is the norm. In: British journal of social psychology, 2014, vol. 53, n° 4, p. 731–751. doi: 10.1111/bjso.12051

This publication URL: <https://archive-ouverte.unige.ch/unige:168175>

Publication DOI: [10.1111/bjso.12051](https://doi.org/10.1111/bjso.12051)



## Maintaining distinctions under threat: Heterosexual men endorse the biological theory of sexuality when equality is the norm

Juan M. Falomir-Pichastor<sup>1\*</sup> and Peter Hegarty<sup>2</sup>

<sup>1</sup>Faculty of Psychology and Educational Sciences, University of Geneva, Switzerland

<sup>2</sup>School of Psychology, University of Surrey, Guildford, UK

According to social identity theory, group members sometimes react to threats to their group's distinctiveness by asserting the distinctiveness of their group. In four studies ( $n = 261$ ) we tested the hypothesis that heterosexual men with a greater propensity to be threatened by homosexuality would react to egalitarian norms by endorsing biological theories of sexuality. Heterosexual men, but not women, with narrow prototypes of their gender in-group endorsed biological theories the most (Study 1). Heterosexual men with higher gender self-esteem, with heterosexist attitudes, who endorsed traditional gender roles, and with narrow prototypes of their gender in-group, endorsed the biological theories more when egalitarian norms rather than anti-egalitarian norms (Studies 2 and 3) or pro-minority ideologies that emphasized group differences (Study 4) were made salient. These findings show group-level reactive distinctiveness among members of a high-status group in a context of threat to the unique privileges that they once enjoyed.

In recent decades, more and more people in Western countries have come to endorse the theory that a person's sexual identity is determined by biological factors (e.g., Lewis, 2009; Saad, 2012). Heterosexual people who consider sexual identity to be under biological control are more tolerant of lesbians and gay men than heterosexual people who consider sexual identity to be an effect of upbringing or personal choice (e.g., Agüero, Bloch, & Byrne, 1984; Ernulf, Innala, & Whitam, 1989; Tygart, 2000; Whitley, 1990), and the biological theory is also endorsed by most lesbian and gay people (Herek, Gillis, & Cogan, 2009). Consequently, it is unsurprising that the biological theory is often believed to be an inherently 'pro-gay' theory by many people (Hegarty, 2002). Indeed, the attributional theory of stigma holds that heterosexual people become less prejudiced as a consequence of endorsing the biological theory, because the biological theory connotes that homosexuality is not a person's individual fault (Weiner, 1995).

However, research has shown that essentialist beliefs not only imply that an individual's sexuality 'stigma' is beyond personal control but they also suggest that there are fundamental distinctions between sexual identity groups (Haslam & Levy, 2006; Hegarty & Pratto, 2001). While the first belief in the *immutability* of sexual identity is correlated with tolerance towards lesbians and gay men, the second belief that sexual identity groups are *fundamentally distinct* from each other is correlated with prejudice against lesbians and gay men (Haslam & Levy, 2006; Haslam, Rothschild, & Ernst, 2002;

\*Correspondence should be addressed to Juan M. Falomir-Pichastor, Social Psychology (FPSE), University of Geneva, 40 bd. du Pont d'Arve, Geneva CH-1205, Switzerland (email: juan.falomir@unige.ch).

Hegarty, 2002, 2010; Hegarty & Pratto, 2001). Indeed, the biological component of psychological essentialism increases stigmatization across a range of group identity domains (e.g., Keller, 2005; No *et al.*, 2008; Phelan, 2005; Rangel & Keller, 2011; Williams & Eberhardt, 2008; Yzerbyt, Rocher, & Schadron, 1997). Thus, the biological theory of sexual identity is consistent both with beliefs that are understood to be broadly 'pro-gay' (immutability beliefs) and with beliefs that tend to co-occur with prejudice (distinctiveness beliefs).

Herein, we investigated whether some heterosexual people endorse the biological theory for its distinctiveness, and for anti-gay reasons. Our thinking was informed by both social identity theory and contemporary research on reactive responses to homosexuality among heterosexual men. Social identity theory (Tajfel & Turner, 1986) posits that individuals are motivated to maintain a positive and distinctive social identity, and that highly identified group members are particularly likely to reaffirm social identity boundaries as a response to distinctiveness threats (i.e., *reactive distinctiveness*; Jetten & Spears, 2003; Jetten, Spears, & Postmes, 2004; see also Brewer, 1991; Wohl, Giguère, Branscombe, & McVicar, 2011). We extended this idea and hypothesized that reactive assertion among heterosexual people can lead to greater endorsement of the biological theory of sexuality.

In so doing, we were informed by research showing that beliefs about scientific research about groups can express social identity needs (Morton, Haslam, Postmes, & Ryan, 2006). Hegarty (2002) originally suggested that essentialist beliefs about sexuality might be expressions of values and politics among heterosexuals (Hegarty & Golden, 2008). Relatedly, Morton and Postmes (2009) found that highly group-identified lesbians, gay men, and bisexual (LGB) participants reported greater belief that sexual identity is immutable when they were presented with a threat of denial of their social identity than when presented with the threat of social discrimination. Falomir and Mugny (2009) observed that heterosexual men with higher gender self-esteem exposed to the biological theory of sexuality showed reduced heterosexist prejudice. Their results suggest that it is easier for some heterosexual men to tolerate gay men when the biological theory seems to re-affirm intergroup boundaries. This research developed this idea by testing whether endorsement of the biological theory might be increased among some heterosexual men in identity-threatening situations.

What might threaten the distinctiveness of heterosexuality as a social identity? We posited a person  $\times$  situation interaction, such that endorsement of the biological theory would be predicted both by propensity to be threatened by homosexuality, and by the situational threat posed by social support for treating gay and lesbian people in an egalitarian manner. In many contemporary societies, there is evidence of increasing support for social equality along sexual identity lines (e.g., Saad, 2012). We posit that this cultural shift can occasion a situational distinctiveness threat for some heterosexual men. Of course, new egalitarian norms lead to the expression and internalization of tolerance over time (e.g., Crandall, Eshleman, & O'Brien, 2002; Pereira, Monteiro, & Camino, 2009). However, such norms can also challenge ingroup distinctiveness, including distinct privileges (Falomir, Gabarrot, & Mugny, 2009a,b; Sanchez-Mazas, Roux, & Mugny, 1994), and lead to reactive distinctiveness (Gabarrot, Falomir, & Mugny, 2009; see Jetten & Spears, 2003). These dynamics also apply to sexual politics. Reactive distinctiveness is often prompted by threats to distinctiveness rather than status (Jetten *et al.*, 2004), and heterosexual men often react against threats to the *distinctiveness* rather than the *status* of their group (McCreary, 1994; Wilkinson, 2004). Schmitt, Lehmilller, and Walsh (2007) found that heterosexual people were less threatened by recognition of same-sex couples

framed as ‘civil unions’ than recognition framed as ‘marriage’ – a status that only opposite-sex couples enjoy in many places. Accordingly, we hypothesized that public support for equal rights for sexual minorities might threaten the distinctiveness of heterosexuals as a group, a threat that can be addressed by greater endorsement of the biological theory.

Note that our person  $\times$  situation hypothesis was gender-specific, and was focused on heterosexual men. Sociocultural theories suggest that traditional gender-role socialization particularly leads heterosexual men, more than heterosexual women, to learn to define their gender identities in opposition to same-sex homosexuals (Herek, 1986). Accordingly, homophobic slurs are much more common in the everyday experiences of boys than of girls (Pascoe, 2005; Preston & Stanley, 1987), are evident in heterosexual men’s everyday banter with each other (Gough & Edwards, 2008), and are perceived as the worst possible affronts to heterosexual men (Burn, 2000). Heterosexual men have been found to shift their descriptions of themselves to maximize their individual distinctiveness from gay men with whom they might interact (Talley & Bettencourt, 2008), and in response to the threat of being misperceived by observers as being gay themselves (e.g., Bosson, Prewitt-Freilino, & Taylor, 2005). Such reactions can be hostile, as when heterosexual men who are misinformed that they have scored ‘feminine’ on a personality test (Glick, Gangl, Gibb, Klumpner, & Weinberg, 2007), or who are exposed to gay erotic materials (Parrott & Zeichner, 2008) react negatively towards gay men. Finally, Carnaghi, Maass, and Fasoli (2011) found that heterosexual men subliminally primed with the homophobic slur *fag*, became more motivated to assert their heterosexual identity. In several studies of individual-level reactivity only men were tested (Glick *et al.*, 2007) and in others effects were observed for men but not women (e.g., Bosson *et al.*, 2005). Although it is also possible that some heterosexual women experience gender-related threat from lesbians (see Swim, Ferguson, & Hyers, 1999), sociocultural theories specify that gender-role socialization makes men more vulnerable than women to distinctiveness-based threat (Vandello & Bosson, 2013). In the studies reported below, we first tested for group-level reactivity among both women and men, and focused exclusively on men in later studies.

We also assumed that socialization affects men differently and leads men to differ in their reactions to threat. Reactive distinctiveness is a more common response to threat among highly identified group members (Jetten *et al.*, 2004; Tajfel & Turner, 1986). Mindful that heterosexual men who felt threatened by homosexuality might be unlikely to report that threat directly, we used several individual differences measures as proxy variables to triangulate on the propensity to feel threatened by homosexuality. Homophobic prejudice has been conceptualized as a consequence of men’s gender socialization (Herek, 1986), and gender self-esteem, endorsement of traditional gender roles, and sexual prejudice are all positively correlated (Dasgupta & Rivera, 2006). Sexual prejudice is also higher among heterosexual men high in gender self-esteem (Falomir & Mugny, 2009) and among men who endorse the most traditional gender roles in particular when they show a tendency to distance themselves from gay men (Falomir, Martínez, & Paterna, 2010). Finally, heterosexuals with higher prejudice perceive themselves to be less similar to a gay male work partner than to a heterosexual one (Herek, 1988; Kite, 1992; Krulowitz & Nash, 1980; see Talley & Bettencourt, 2008, for inconsistent findings). Accordingly, in the studies below we assessed propensity to be threatened by measuring participants’ narrow prototypes for gender that exclude homosexual people (Studies 1 and 3), gender self-esteem (Study 2), endorsement of traditional gender roles (Study 3), and heterosexist attitudes (Study 4).

### **The present research**

In summary, four studies examined whether heterosexual men with a greater propensity to be threatened by homosexuality would react against evidence of increasing public support for equality by increasing their endorsement of the biological theory of sexuality. Study 1 examined if endorsement of the biological theory and the narrowness of heterosexual people's gender prototypes were more closely related among men than among women. Two experiments then tested the person  $\times$  situation hypothesis directly by making salient a discriminatory or an egalitarian social norm towards homosexuals (Studies 2 and 3), and examining which heterosexual men endorsed the biological theory the most under such conditions. In a final study, we drew on differences between hierarchy-attenuating ideologies that either 'turn the volume down' (i.e., egalitarianism) or 'turn the volume up' (i.e., multiculturalism) on group differences (cf., Bem, 1995) to test more precisely whether this endorsement of biology was driven by threat to distinctiveness or conformity to pro-gay norms (Study 4).

These studies were conducted in Switzerland. The European context differs from the United States where most research on beliefs about sexual identity has been conducted. There is evidence that the biological theory has been constructed as a pro-gay theory to a greater extent in the United States than in some European countries (Conrad & Markens, 2001; Hegarty, 2002). Switzerland is typical of the ongoing historical trend towards greater tolerance of sexual minorities in European countries in recent decades. Although 37.9% of Swiss people considered homosexuality as 'never justifiable' in 1989, the equivalent percentages had dropped to 17.6% in 1996, and to 11.7% by 2007 (World Value Survey, 2009). Attitudes to LGB people in Switzerland are positive even in comparison to other European countries (e.g., Keuzenkamp, 2011; The Danish Institute for Human Rights, 2012). Because of this pattern of social attitudes, contemporary Switzerland constitutes a reasonable cultural context within which to test our hypotheses about reactive distinctiveness.

## **STUDY 1**

Study 1 used a correlational design to provide a preliminary test of our hypothesis that men who define their gender group in opposition to same-sex homosexuals are generally more motivated to endorse the biological theory of sexual orientation. We predicted that a narrower prototype of their gender group would be correlated with endorsement of biological beliefs among heterosexual men, but not among heterosexual women.

## **Method**

### **Participants and procedure**

Eighty-nine people were approached in public places in a large Swiss city, including an urban university campus, and they were asked to participate in a study regarding the perception of social groups. Eight participants were removed from the data because they were not heterosexuals (see below for inclusion criteria). The remaining 44 men and 37 women ( $M_{\text{age}} = 33.78$ ,  $SD = 12.08$ ) included in the analysis given below were students ( $n = 45$ ), workers ( $n = 28$ ), and unemployed people ( $n = 8$ ). After completing the study, all participants were thanked and debriefed about study purposes and procedure.

## Materials

The key items were embedded within a larger questionnaire regarding diverse social issues. Unless otherwise indicated, all measures were assessed through 7-point Likert scales ranging from 1 (*strongly disagree*) to 7 (*strongly agree*).

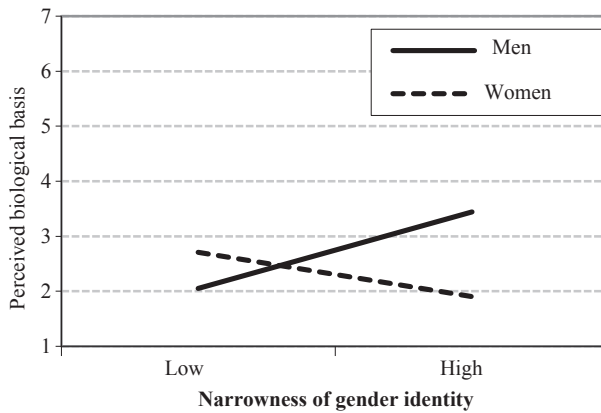
*Narrowness of gender identity* was the proxy measure of propensity to threat in this study. Three items assessed the extent to which participants had narrow prototypes for their gender groups that excluded homosexual people. Two items were sex-specific, and women and men answered items pertaining to their own gender: 'Homosexuality is contrary to being a man or a woman', '[Masculinity/Femininity] may as well be embodied in a [gay man/lesbian woman] as in a straight [man/woman]' (*Reverse coded*), and 'A [gay man/lesbian woman] is also a 'real' [man/woman]' (*Reverse coded*). An average score was computed such that higher scores indicated a narrower prototype ( $M = 3.20$ ,  $SD = 1.77$ ;  $\alpha = .90$ ). Consistent with past studies (e.g., Bosson *et al.*, 2005), heterosexual men perceived their gender role to be more incompatible with homosexuality than heterosexual women did ( $M = 3.84$ ,  $SD = 1.65$ ;  $M = 2.43$ ,  $SD = 1.61$ ),  $F(1, 79) = 15.06$ ,  $p < .001$ .

Two items assessed the *endorsement of the biological theory*: 'Sexual orientation is biologically determined' and 'Sexual orientation has a genetic origin'. Scores on these two items were highly correlated, and were averaged ( $M = 2.76$ ,  $SD = 1.85$ ),  $r(81) = .97$ ,  $p < .001$ . Note that in contrast to increasing support for the biological theory in some populations (Lewis, 2009), support for the theory among this Swiss sample was comparatively low.

Finally, demographic items were presented. Our hypotheses were specific to people who were heterosexual, but sexual orientation is a multidimensional trait that involves identification, behaviour, and desire (Diamond, 2003). Three items assessed identification, behaviour, and attraction: 'How do you define your sexual orientation?' (heterosexual, bisexual or homosexual), 'Have you previously had sexual relationships with a same-sex partner?' (yes vs. no), and 'How often do you feel sexual attraction to a same-sex person?' (scale ranged from 1 = *never* to 7 = *regularly*). Participants were only included in the study if they defined themselves as heterosexuals, reported that they had not previously had sexual relationships with same-sex partners and scored below the middle point of the scale in the attraction question (see Falomir & Mugny, 2009).

## Results

To test our main hypothesis, belief in the biological basis of sexual orientation was regressed on participants' gender ( $-1$  for men and  $+1$  for women), standardized narrow prototype, and the gender by prototype interaction,  $R^2 = .10$ ,  $F(3, 77) = 2.91$ ,  $p = .04$ . Only the predicted interaction effect was significant ( $B = -.55$ ),  $t(77) = 2.49$ ,  $p = .015$ ,  $\eta^2_p = .07$  (see Figure 1). Heterosexual men with a narrower prototype of masculinity endorsed the biological theory the most ( $B = .69$ ),  $t(77) = 2.36$ ,  $p = .02$ . However, a non-significant negative relationship between these two variables was observed among women ( $B = -.40$ ),  $t(77) = 1.23$ ,  $p = .22$ . We tested for gender differences among participants one standard deviation above ( $+1 SD$ ) and below ( $-1 SD$ ) the mean prototype scores. Among participants with narrower prototypes, men endorsed the biological theory significantly more than women did,  $t(77) = 2.37$ ,  $p = .02$ . Among participants with broader prototypes, the gender difference was not significant ( $-1 SD$ ),  $t(77) = 1.11$ ,  $p = .27$ .



**Figure 1.** Perceived biological basis of sexual orientation (predicted values) as a function of participant gender and perceived narrowness of gender identity ( $\pm 1$  SD; Study 1).

## Discussion

Study 1 suggests a sex-specific relationship between the propensity to threat, as assessed through a narrower perception of gender identity excluding homosexuals, and the endorsement of the biological theory of sexual orientation. Consistent with past studies on threats to heterosexual masculinity (Bosson *et al.*, 2005; Carnaghi *et al.*, 2011; Glick *et al.*, 2007; Talley & Bettencourt, 2008), heterosexual men perceived their gender identity as somewhat narrower and exclusive of homosexuals than heterosexual women. More importantly, such propensity to threat was related to endorsement of the biological theory only among heterosexual men.

However, two limitations of this study should be highlighted. First, Study 1 assessed beliefs about gender prototypes as a proxy measure of propensity to be threatened, and replication using a different proxy measure is required. Second, Study 1 had a correlational design and the two independent variables in our analysis were not independent of each other, as men had narrower prototypes than women. To address both shortcomings, Study 2 used an experimental manipulation of threat, and a measure of gender self-esteem. Indeed, gender similarities on gender self-esteem have been observed in past research and so we used it as a second proxy for propensity to be threatened (Falomir & Mugny, 2009).

## STUDY 2

Past research has shown that men with high gender self-esteem are also more heterosexist, particularly when the motivation to maintain psychological distance from gay men is high (Falomir & Mugny, 2009). Accordingly, men with high *gender self-esteem* should evidence more reactive distinctiveness and show increased endorsement of the biological theory of sexual identity. We manipulated distinctiveness threat situationally by making salient social norms that promoted either equality (high threat) or discrimination (low threat). We predicted a three-way interaction between participant gender, gender self-esteem, and the manipulation of norm salience; heterosexual men with higher gender self-esteem would endorse the biological theory most when the equality norm was made salient, whereas heterosexual women would not evidence reactive distinctiveness at all.

## Method

### Participants

Sixty-nine students who were approached in the university campus volunteered in the study. Three of them were dropped from the analyses because they could not be categorized as heterosexuals on the basis of their responses to the demographic items. In addition, eight participants were dropped because preliminary analyses suggested that they had not experienced the manipulation (see below). Data from the remaining 35 women and 23 men (age,  $M = 22.17$ ,  $SD = 2.13$ ) are analysed below.

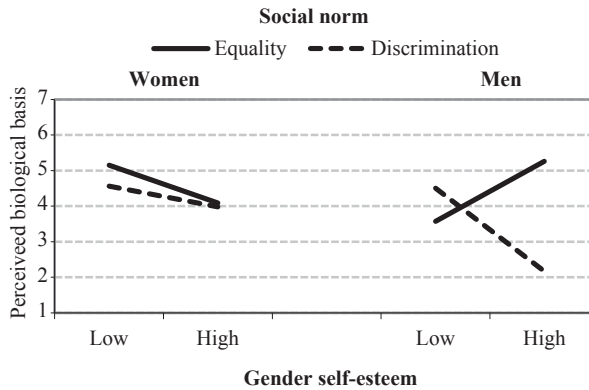
### Materials

Participants initially completed three 7-point Likert items assessing *gender self-esteem*, the proxy measure for propensity to threat in this study. All items were sex-specific as in Falomir and Mugny's (2009) research: 'Overall, I have a very high esteem of myself as a [wo]man', 'Overall, I am very proud to be a [wo]man', and 'Overall, I am highly satisfied that I am a [wo]man'. Higher scores indicated higher gender self-esteem on this reliable scale ( $\alpha = .86$ ,  $M = 5.85$ ,  $SD = 0.97$ ). A preliminary analysis confirmed that overall gender self-esteem was invariant across participant gender, norm manipulation, or their interaction, all  $F(1, 54) < 2.38$ ,  $p > .12$ .

Participants were randomly assigned to one of the two *norm salience* conditions. In both conditions, participants were informed about the results of a bogus study described as a study of a representative sample of university students. Responses to four key questions were depicted in graphs, and the main result for each question was highlighted. In the *equality norm* condition, the graph showed that 88% of students supported giving homosexuals the same rights as heterosexuals, that 78% thought that discriminating against homosexuals was unacceptable, that 83% had no preference to interact with heterosexuals rather than homosexuals, and that 80% had similar feelings towards heterosexuals and homosexuals. In the *discrimination norm* condition, the graph showed how 88% of students supported not giving homosexuals the same rights as heterosexuals, 78% thought that discriminating against homosexuals was acceptable, 83% preferred to interact with heterosexuals rather than homosexuals, and 80% had different feelings towards homosexuals and heterosexuals.

Afterwards, participants were presented with a forced-choice item which asked them to indicate whether the majority of university students supported either equality or discrimination towards homosexuals. This item served as a manipulation check and participants were excluded if they did not tick 'equality' in the equality condition or 'discrimination' in the discrimination condition. Eight participants were dropped from the analyses for this reason.<sup>1</sup> Finally, participants completed the measure of endorsement of the biological origins of sexual orientation,  $r(58) = .69$ ,  $p < .001$ ;  $M = 4.10$ ,  $SD = 1.85$ , and the demographic items as in Study 1.

<sup>1</sup> In Study 2, six participants (five men and one woman) were excluded in the equality norm condition, and two men were excluded in the discrimination norm condition. This finding suggests that male participants are overall more reluctant to acknowledge the existence of the equality norm, which is consistent with our theoretical reasoning. However, Study 3 used exactly the same procedure and from the 10 male participants, who were excluded from the analyses for the same reasons, two were in the equality norm condition and eight were in the discrimination norm condition. Accordingly, those participants who mistook the norm induction did not follow a coherent pattern, and any theoretical reasoning can be advanced.



**Figure 2.** Perceived biological basis of sexual orientation (predicted values) as a function of participants' gender, social norm, and gender self-esteem ( $\pm 1$  SD; Study 2).

## Results

Endorsement of a biological basis of sexual orientation was regressed on norm manipulation ( $-1 =$  equality and  $+1 =$  discrimination), participant gender ( $-1 =$  women and  $+1 =$  men), standardized scores on the gender self-esteem, as well as all possible interactions between these three factors,  $R^2 = .29$ ,  $F(7, 50) = 2.93$ ,  $p = .012$ . This analysis revealed only a significant three-way interaction effect ( $B = -.56$ ),  $t(50) = 2.07$ ,  $p = .04$ ,  $\eta^2_p = .07$  (see Figure 2).

As predicted, no significant effects were observed among women, all  $t(50) < 1.14$ ,  $p > .25$ . Among men, the norm by gender self-esteem interaction effect was significant ( $B = -1.00$ ),  $t(50) = 2.46$ ,  $p = .017$ ,  $\eta^2_p = .10$ . In the equality norm condition, men with higher gender self-esteem endorsed the biological basis of sexual orientation more ( $B = .84$ ),  $t(50) = 2.37$ ,  $p = .022$ . However, in the discrimination norm condition, this relationship was negative and non-significant ( $B = -1.16$ ),  $t(50) = 1.58$ ,  $p = .12$ .<sup>2</sup> For men with higher levels of gender self-esteem ( $+1$  SD), endorsement of the biological theory was higher in the equality norm condition than in the discrimination norm condition  $t(50) = 3.53$ ,  $p = .001$ . For men with lower levels of gender self-esteem ( $-1$  SD), there was no difference between conditions,  $t(50) = 0.69$ ,  $p = .49$ .

## Discussion

In Study 2, we manipulated the salience of equality and discrimination norms and saw that men with high gender self-esteem endorsed the biological theory to a greater extent when equality norm was made salient. As in Study 1, there was no evidence of reactive distinctiveness among women. Consequently, our subsequent experiments included only men and we continued to triangulate by broadening the range of variables used to identify propensity to threat.

<sup>2</sup> Despite that variances between-conditions for the main dependent variable are equal (Levene's test:  $F(3, 54) = 0.22$ ,  $p = .88$ ), that for gender self-esteem are not,  $F(3, 54) = 2.76$ ,  $p = .05$ . Indeed, the range of this variable for the male participants is shorter in the discrimination norm condition (from 5 to 7) than in the egalitarian norm condition (from 2 to 7), which could explain the non-significant but higher  $B$  observed in the discrimination norm condition, as compared to the egalitarian norm condition. This suggests that we should be cautious before concluding about the non-significant effect observed in the discrimination condition.

### STUDY 3

Study 3 aimed to replicate and extend the findings of Study 2 by operationalizing the propensity to threaten with the measure used in Study 1 (narrowness of gender identity), and a measure of the endorsement of traditional gender roles. Past research suggests that men who endorse traditional gender roles are motivated to maintain gender role distinction and unambiguous category boundaries in their interactions with individual targets (e.g., Bosson *et al.*, 2005; Whitley, 2001). Among heterosexual men who perceive a strong dissimilarity between their own group and gay men, the endorsement of traditional gender roles is positively correlated with sexual prejudice (Falomir *et al.*, 2010). Thus, we advanced independent predictions that heterosexual men who excluded homosexuality from masculinity and those who endorsed traditional gender roles would endorse the biological theory to a greater extent when the equality norm was made salient, and we conducted separate analyses to test these predictions.

### Method

#### Participants

From the 80 men who initially volunteered in the study, we excluded four who we could not define as heterosexual and 10 who mistook the norm induction information (see note 1). The participants (age,  $M = 35.54$ ,  $SD = 12.29$ ) were students ( $n = 16$ ), workers ( $n = 38$ ), unemployed ( $n = 4$ ) or did not provide occupational information ( $n = 8$ ). Unless otherwise indicated, the procedure was similar to that used in the previous studies.

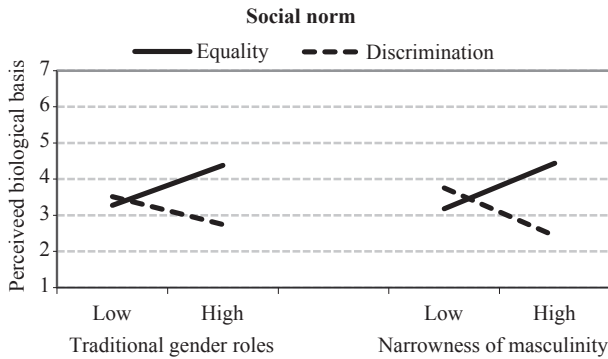
#### Materials

Propensity to threaten was operationalized in two different ways. We measured the *narrowness of masculinity* as in Study 1 ( $M = 3.46$ ,  $SD = 1.58$ ;  $\alpha = .80$ ). The *endorsement of traditional gender roles* was assessed using a 10-item scale adapted from the Gender-Role subscale of the Liberal Feminist Attitude and Ideology Scale (Morgan, 1996). Higher scores indicated a more positive attitude towards traditional gender roles ( $\alpha = .91$ ,  $M = 2.83$ ,  $SD = 1.53$ ). Sample items include 'Both men and women should take care of their children' and 'A man who stays home to care for his children instead of working full-time can feel productive'. Unsurprisingly, a narrower perception of masculinity was positively and strongly correlated with endorsement of traditional gender roles,  $r(66) = .72$ ,  $p < .001$ . Scores on both factors did not differ among participants assigned to different conditions of the experiment,  $F(1, 64) = 0.67$ ,  $p = .41$ ,  $F(1, 64) = 0.54$ ,  $p = .46$ , respectively.

Participants were then randomly assigned to the egalitarian norm or discriminatory norm conditions, using the results of a bogus study as in Study 2. Afterwards, participants completed the manipulation check item, the endorsement of the biological theory items ( $r = .67$ ,  $p < .001$ ;  $M = 3.55$ ,  $SD = 1.82$ ), and demographic items as in previous studies.

### Results

We performed two separate regression analyses with the endorsement of the biological theory as the dependent variable. Both included the norm manipulation ( $-1 =$  equality and  $+1 =$  discrimination) as an independent predictor. The first analysis included the



**Figure 3.** Heterosexual men's perceived biological basis of sexual orientation (predicted values) as a function of social norm and endorsement of traditional gender roles ( $\pm 1$  SD) or perceived narrowness of masculinity ( $\pm 1$  SD; Study 3).

standardized endorsement of traditional gender roles scores as well as their interaction with the norm,  $R^2 = .11$ ,  $F(3, 62) = 2.60$ ,  $p = .059$ . Only the interaction between endorsement of traditional gender roles and the norm manipulation was significant (see Figure 3;  $B = -.46$ ),  $t(62) = 2.04$ ,  $p = .045$ ,  $\eta^2_p = .06$ . Men who endorsed traditional gender roles also endorsed the biological theory the most in the egalitarian norm condition ( $B = .55$ ),  $t(62) = 2.02$ ,  $p = .047$ , but not in the discriminatory norm condition ( $B = -.38$ ),  $t(62) = 1.04$ ,  $p = .30$ . Furthermore, the biological theory was endorsed more in the egalitarian condition than in the discrimination condition among men who endorsed more traditional gender roles ( $+1$  SD),  $t(62) = 2.53$ ,  $p = .014$ , but not among men who did not endorse traditional gender roles ( $-1$  SD),  $t(62) = 0.38$ ,  $p = .70$ .

The second analysis included narrowness of masculinity (standardized scores) as well as its interaction with the norm,  $R^2 = .16$ ,  $F(3, 62) = 3.94$ ,  $p = .012$ . This analysis also showed only a significant interaction effect ( $B = -.64$ ),  $t(62) = 3.00$ ,  $p = .004$ ,  $\eta^2_p = .12$  (see Figure 3). Men with a narrower perception of masculinity endorsed the biological theory more in the egalitarian condition ( $B = .63$ ),  $t(62) = 2.17$ ,  $p = .034$ , but endorsed that same theory less in the discrimination condition ( $B = -.65$ ),  $t(62) = 2.07$ ,  $p = .042$ . The biological theory was endorsed more in the egalitarian condition than in the discrimination condition among men with a narrower prototype of masculinity ( $+1$  SD),  $t(62) = 3.29$ ,  $p = .002$ . The reverse pattern among men with a broader prototype of masculinity was not significant ( $-1$  SD),  $t(62) = 0.94$ ,  $p = .34$ .

## Discussion

Study 3 was a conceptual replication of Study 2, and the results of both experiments triangulate our reactive distinctiveness hypothesis. As predicted, those men with high propensity to be threatened responded to salient egalitarian norms with increased support for the biological theory of sexuality. However, there is an alternative explanation of these results. In the discrimination norm condition of Study 3, men with narrower prototypes endorsed the biological theory more in the egalitarian condition and less in the discrimination condition. This effect was consistent with those effects observed for gender self-esteem (Study 2; see note 2) and traditional gender roles (Study 3), even if these were not significant. These findings could be evidence of conformity with social norms rather than reactive distinctiveness. Hegarty (2002) found that participants in both

the United States and the United Kingdom understood that beliefs about the immutability of homosexuality expressed positive attitudes to gay and lesbian people, and that beliefs about the distinctiveness of sexual identity groups expressed negative attitudes. Thus, men with a propensity to be threatened may have endorsed the biological theory to appear more pro-gay in response to the egalitarian norm and endorsed it less to appear more anti-gay in response to the discrimination norm. Our final study focused on the distinction between such conformity to pro-gay norms and reactive distinctiveness.

## STUDY 4

To examine whether increased endorsement of the biological theory in response to social support for equality evidences reactive distinctiveness or conformity with pro-gay norms, we primed heterosexual men with pro-minority (hierarchy-attenuating) ideologies that emphasized either similarities between groups or the distinct positive attributes of minority groups. Egalitarian ideologies – much like colour-blindness and anti-racism ideologies – emphasize similarities between individuals and groups as a rationale for equal treatment, while multicultural ideologies aim to improve intergroup relations by emphasizing valued features that make groups positively different from each other (e.g., Mazzocco, Cooper, & Flint, 2011; Plaut, Thomas, & Goren, 2009; Richeson & Nussbaum, 2004; Vorauer, Gagnon, & Sasaki, 2009; Wolsko, Park, Judd, & Wittenbrink, 2000). Egalitarian arguments in favour of ‘tolerance’ towards lesbians and gay men are commonly researched in social psychology (Kitzinger, 1987), but some have argued that *queer* approaches that highlight and value the distinct features of sexual minorities have been comparatively neglected (e.g., Hegarty, 1997; Minton, 1997). There is evidence of belief in distinct positive attributes of sexual minorities; many US students value lesbians and gay men because they stereotype them as distinct gender non-conformers who loosen the grip of gender norms on everyone (Massey, 2009), and gay lesbian and bisexual people who successfully endure stigmatization have recently been argued to be ideal candidates for creative leadership in organizations (Fassinger, Shullman, & Stevenson, 2010).

As multicultural ideologies emphasize difference and may even reinforce intergroup categorization and essentialism (Doise, Deschamps, & Meyer, 1978; Haidt, Rosenberg, & Horn, 2003; Turner, Hogg, Oakes, Reicher, & Wetherell, 1987), they allow us to test whether endorsement of the biological theory is a consequence of conformity to pro-minority norms or reactive distinctiveness. If our reactive distinctiveness hypothesis is correct, then only in the egalitarian condition will readily threatened heterosexual men reactively endorse the biological theory. If such men use the biological theory as a vehicle to conform to pro-gay norms, then they ought to endorse the biological theory in both the egalitarian and multicultural conditions. In this final study, we assessed heterosexual men’s propensity to be threatened by homosexuality by measuring their heterosexist attitudes.

## Method

### *Pilot study*

We first conducted a pilot study to ensure that the texts we used to prime the egalitarian and the multicultural norms were perceived as equally favourable to minorities in general and as equally pro-gay. In both conditions, a long paragraph (of 111 words) initially emphasized that social diversity in Western societies is often a source of conflict, and that

societies have to prevent and manage these tensions. The second paragraph (about 145 words) provided the experimental manipulation. In the *egalitarian condition* this paragraph emphasized the relevance of equality and non-discrimination to deal with this issue, whereas in the *multiculturalism condition* the paragraph emphasized the relevance of acknowledging group differences and valuing diverse group characteristics. Neither text mentioned sexual orientation or sexual minorities.<sup>3</sup>

Overall, 10 women and 9 men within the university campus volunteered to read one or other versions of the text, attributed to a local newspaper. They completed two items anchored by scales ranging from 1 (*absolutely not*) to 7 (*yes definitely*). 'To what extent is this position favourable to social minorities?' and 'To what extent is this position favourable to homosexuals?' A mixed-model  $2 \times 2$  ANOVA with text type as a between-subjects variable and the target group (social minorities vs. homosexuals) as a within-subjects factor, showed only a main effect of target group,  $F(1, 17) = 5.92, p = .02, \eta^2_p = .25$ . As could be expected, the texts were perceived as more favourable to minorities in general ( $M = 5.94, SD = 1.71$ ) than specifically to homosexuals ( $M = 5.36, SD = 1.77$ ). Neither the norm manipulation,  $F(1, 17) = 0.00, p = .98$ , nor the interaction,  $F(1, 17) = 1.12, p = .73$ , were significant. Accordingly, we used these texts to operationalize social norms that were equally favourable to minorities, and which did not seem to particularly favour homosexuals over minorities in general.

### Participants and procedure

From the 57 initial participants, one was dropped because he was not heterosexual. The final sample consisted of 56 heterosexual men (age  $M = 33.08, SD = 9.52$ ), including students ( $n = 16$ ) and workers ( $n = 40$ ). Unless otherwise indicated, the procedure was similar to that followed in previous studies.

### Materials

Heterosexist attitudes were assessed using the 25-item scale developed by Falomir and Mugny (2009). This measure was reliable, and higher scores indicated a more positive *attitude towards homosexuality* ( $\alpha = .92, M = 4.58, SD = 1.08$ ). Attitudes were similar among participants assigned to different conditions of the experiment,  $F(1, 54) = 0.44, p = .51$ .

After completing this measure, participants were randomly assigned to either the egalitarian or multicultural *social norm* condition. As in earlier studies, the texts communicated that these ideologies were normative. Each text described a representative survey of 5,000 people in the Swiss canton where this study was conducted in which 90% of respondents had endorsed the relevant ideology.

Next, participants completed a manipulation check. They indicated their belief that the majority of the Swiss population supported *equality* with two items (i.e., 'The majority of society supports the non-discrimination of social minorities' and 'The majority of society supports laws enforcing equality between social groups'), and their belief that the majority supported *multiculturalism* with two items (i.e., 'The majority of society acknowledges the specific qualities of each social minority' and 'The majority of society supports laws valuing the specific qualities of each social minority'). All four items

<sup>3</sup> All materials are available from the first author.

were presented as 7-point Likert items ranging from 1 (*absolutely not*) to 7 (*yes definitely*). The questions pertaining to the induced norm were presented first in each norm condition. Endorsement of equality ( $M = 4.38$ ,  $SD = 1.43$ ;  $r(56) = .52$ ,  $p < .001$ ) and of multiculturalism ( $M = 4.32$ ,  $SD = 1.43$ ,  $r(56) = .62$ ,  $p = .001$ ), were positively correlated,  $r(56) = .60$ ,  $p = .001$ .

Endorsement of the biological basis of sexual orientation was assessed next with the same two items used in Studies 1–3,  $r(56) = .72$ ,  $p < .001$  ( $M = 2.83$ ,  $SD = 1.57$ ). Demographic items were presented last, including the sexual orientation items used in Studies 1–3.

## Results

### Manipulation check

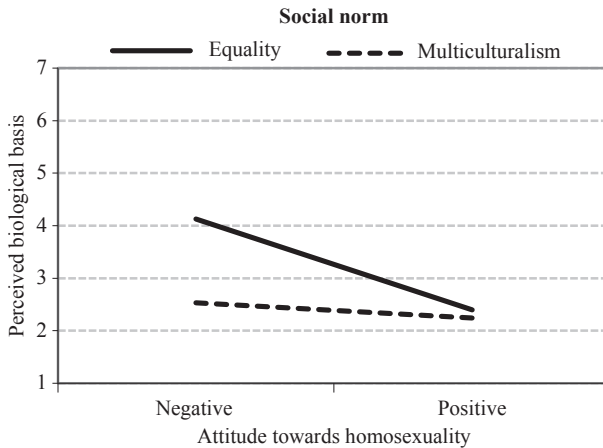
We conducted a mixed-model  $2 \times 2$  ANOVA with the manipulation of norms (egalitarian vs. multicultural) as a between-subjects factor and the perception of social support for the relevant ideology (equality vs. multiculturalism) as a within-subjects factor. The predicted interaction effect was significant,  $F(1, 54) = 10.35$ ,  $p = .002$ ,  $\eta^2_p = .16$ . In the equality norm condition, public support was perceived to be higher for equality ( $M = 4.75$ ,  $SD = 1.36$ ) than for multiculturalism ( $M = 4.21$ ,  $SD = 1.51$ ),  $F(1, 54) = 4.34$ ,  $p = .04$ . In the multiculturalism norm condition public support was perceived to be higher for multiculturalism ( $M = 4.44$ ,  $SD = 1.35$ ) than for equality ( $M = 3.96$ ,  $SD = 1.43$ ),  $F(1, 54) = 6.16$ ,  $p = .016$ . Comparison across conditions showed that the experimental manipulation affected perceptions of public opinion about equality,  $F(1, 54) = 4.43$ ,  $p = .04$ , but not public opinions about multiculturalism,  $F(1, 54) = 0.34$ ,  $p = .56$ .

### Perceived biological basis of sexual orientation

The endorsement of the biological theory was regressed on the norm manipulation ( $-1 =$  equality and  $+1 =$  multiculturalism), the standardized attitude scores and the interaction between these two factors,  $R^2 = .22$ ,  $F(3, 52) = 4.89$ ,  $p = .005$ . The main effect of the norm manipulation was significant, men endorsed the biological theory more in the equality condition than in the multiculturalism condition ( $M = 3.20$ ,  $SD = 1.66$ ,  $M = 2.40$ ,  $SD = 1.37$  respectively),  $t(52) = 2.29$ ,  $p = .026$ ,  $\eta^2_p = .09$ . The attitude main effect was also significant,  $t(52) = 2.60$ ,  $p = .012$ ,  $\eta^2_p = .11$ ; men with negative attitudes towards homosexuality endorsed the biological theory the most ( $B = -.50$ ). Finally, the predicted attitude by norm interaction effect fell short of traditional significance levels,  $t(52) = 1.86$ ,  $p = .068$ ,  $\eta^2_p = .06$  (see Figure 4). The relationship between negative attitudes and endorsement of the biological theory was significant in the egalitarian norm condition ( $B = -.86$ ),  $t(52) = 3.17$ ,  $p = .002$ , but not in the multicultural norm condition ( $B = -.14$ ),  $t(52) = 0.52$ ,  $p = .60$ . Among men with negative attitudes to gay men, the biological theory was endorsed more in the egalitarian condition than in the multiculturalism condition ( $-1 SD$ ),  $t(52) = 2.94$ ,  $p = .005$ , but no differences between conditions were observed among men with positive attitudes to gay men ( $+1 SD$ ),  $t(52) = 0.29$ ,  $p = .77$ .

## Discussion

In Study 4, more prejudiced men endorsed the biological theory to a greater extent when the egalitarian norm was salient but not when the multicultural norm was salient. This



**Figure 4.** Perceived biological basis of sexual orientation (predicted values) as a function of social norm and attitude towards homosexuality ( $\pm 1$  SD, Study 4).

interaction is consistent with our interpretation of earlier studies that evidence of public support for equality prompts reactive distinctiveness because it threatens some heterosexual men's sense of being distinct from gay men rather than because it prompts them to conform with pro-gay norms. Given that these findings were observed specifically among heterosexual men with anti-gay attitudes, they provide clear support for the hypothesis that such reactive endorsement of the biological theory can be a vehicle for the expression of anti-gay rather than pro-gay sentiment. The results of Study 4 are also consistent with Jetten *et al.* (2004) conclusions that threats to distinctiveness, more than status, typically lead to reactive distinctiveness (see also Schmitt *et al.*, 2007).

## GENERAL DISCUSSION

As heterosexuality becomes less of a basis for distinct *social* advantage in Europe, and possibly elsewhere, some heterosexual men react by asserting the distinctiveness of sexual identity in the domain of *biology*. Results showed that support for the biological theory of sexual identity is greater among some heterosexual men when they are presented with evidence that equal social treatment of all people is normative. Heterosexual men with narrow prototypes of their gender group (Studies 1 and 3), those with higher gender self-esteem (Study 2), those who endorse traditional gender roles (Study 3), and those who have negative attitudes towards gay and lesbian people (Study 4) showed increased endorsement of the biological theory under such conditions. These proxy variables triangulates around the conclusion that heterosexual men vary with a propensity to be threatened by homosexuality experience of group-level distinctiveness threat that leads them to endorse the biological theory in these studies.

The current findings show how hypotheses drawn from social identity theory can usefully engage the study of sexual identity and vice versa. They support the reactive distinctiveness hypothesis (Jetten *et al.*, 2004), and are particularly consistent with past research showing that highly identified group members show reactive distinctiveness when intergroup similarity is high, and specifically when an equality norm is made salient (Gabarrot *et al.*, 2009). Furthermore, this defensive reaction is a response to the

distinctiveness threat rather than a status threat (Jetten & Spears, 2003; Jetten *et al.*, 2004; Tajfel & Turner, 1986; Wohl *et al.*, 2011).

By drawing together social identity theory and research on heterosexism, our studies suggest the possibility that salient egalitarian norms may lead heterosexual men to engage in group-level strategies to maintain distinctiveness. However, we caution against hasty analogies between individual and group-level distinctiveness. Although both high- and low-prejudice heterosexual men may distance themselves from individual gay men in interaction (Talley & Bettencourt, 2008), only prejudiced heterosexual men responded to the threat to group distinctiveness prompted by the equality prime in Study 4. At the individual level of analysis, Dasgupta and Rivera (2006) have distinguished between the endorsement of prescriptive gender roles (traditional beliefs about gender) and investment in asserting heterosexual identity to others (traditional beliefs about gender identity). Carnaghi *et al.* (2011) found only traditional beliefs about gender identity to be affected among heterosexual men who were subliminally primed with homophobic slurs. These variables may have their equivalents at the collective level, as when groups collectively act to organize 'straight pride parades' in direct reaction against gay events which celebrate gay culture and raise consciousness about inequality (Huffington Post, 2011). The dynamics of defensive assertions of heterosexuality could be systematically compared across individual and group levels, and differences and similarities between individual and group-level reactance might be observed in both the laboratory and the field.

These studies add to a body of research suggesting that essentialist beliefs about sexual orientation can be consequences of intergroup motives (Hegarty, 2002; Morton & Postmes, 2009). Hegarty (2002) examined beliefs about immutability as a resource for expressing pro-gay sentiment and Morton and Postmes (2009) found that highly identified LGB people adapt these beliefs strategically in response to different kinds of threat. However, the present studies uniquely show how endorsing the biological theory might address broadly anti-gay functions. Such uses of the biological theory may seem particularly counter-intuitive when set against attribution theory's claim that the biological theory leads heterosexual people to become more tolerant (Weiner, 1995). However, the result may help to explain why sexual prejudice and endorsement of the biological theory are so robustly correlated, whereas experiments fail to show consistent evidence that teaching the biological theory of sexuality engenders more positive attitudes (Hegarty & Golden, 2008). As such, these results contribute to the emerging consensus that multiple group interests can be expressed through the endorsement or rejection of essentialist beliefs about groups (Morton & Postmes, 2009; Verkuyten, 2006).

Indeed our results suggest one reason for this flexibility; people might conceptualize the biological theory of sexuality as being about immutability or distinctiveness to varying degrees in different situations or in different cultures. Our two-item measure of the endorsement of the biological belief is similar to items that have loaded on beliefs on immutability rather than distinctiveness in past correlational studies conducted in the United States and United Kingdom (Haslam & Levy, 2006; Hegarty & Pratto, 2001), which lead to the conclusion that participants constructed such general items about biology as pertaining to immutability more than to distinctiveness. We did not aim to replicate the factor structure of essentialist beliefs observed in previous studies here because our studies were conducted among volunteer members of the public and in French and we aimed for items that would remain close to people's everyday talk about biology rather than to inquire about their logic in more fine-grained ways. The results of Study 4 particularly show that in some contexts the implication that groups are distinct can be a more salient feature of the biological theory than the implication that group identity is

immutable (see also Hegarty, 2010). Future research should assess whether the biological theory can be ground for responding to threats to distinctiveness in cultures such as in the United States where the theory has been more consistently constructed as a pro-gay theory (Conrad & Markens, 2001).

We wish to caution against three possible over-interpretations of these new results. First, we remind readers of the cultural context of this study and the low levels of endorsement of the biological theory evidenced in all four studies. Our conclusions about the situation-specific meanings of the biological theory may or may not apply to a cultural context such as in the United States in which the biological theory has been consistently constructed as a pro-gay theory (Conrad & Markens, 2001). Second, reactive distinctiveness is but one response that heterosexual men can make in response to evidence of increasing support for sexual identity equality. Many heterosexual men showed no such response here and some heterosexual men perceive themselves as 'allies' in pursuing equality (Stotzer, 2009). Third, all accounts of differences between sexual identity groups are not necessarily heterosexist, reactive or anti-gay (see Herek, 2010; Massey, 2009). Indeed, sexual minorities also endorse distinctiveness beliefs (Morton & Postmes, 2009), and sexual minority researchers in psychology have challenged the 'liberal humanist' views that there are no meaningful differences between gay and straight people at all (Kitzinger, 1987). Study 4, in particular suggests that norms and ideologies that turn the volume down on group differences (e.g., egalitarianism) can exacerbate distinctiveness motives, in some situations where ideologies that emphasize group differences (e.g., multiculturalism) do not. That study suggests that strategies that are more akin to multiculturalism, such as polycultural ideologies (Rosenthal, Levy, & Moss, 2011) and queer approaches (Hegarty, 2011; Minton, 1997), need further exploration and research.

### **Concluding thought**

Finally, we wish to position this research in historical context. Our research might appear to be the first demonstration of a defensive projection of heterosexual men's interests onto a scientific theory captured by social psychology experiments. However, Bramel (1963) exposed heterosexual men to false feedback suggesting that they had had erotic responses to male stimuli, and observed their 'defensive projection' which took the form of estimating that a larger proportion of the population had homosexual tendencies. Although Bramel's experiments were deemed unethical in their time, the phenomenon he captured remains relevant in a context where pro-gay activists routinely assert a larger size for the homosexual minority than anti-gay activists do (Pruitt, 2002). Similarly, our findings evidence defensiveness which seems surprising when set against the majority view that the biological theory is a pro-gay theory. Separated by half a century, and by enormous shifts in the cultural contexts, both pieces of research show how some heterosexual men will come to endorse theories about sexuality as a consequence of defensiveness.

### **Acknowledgements**

We thank the Swiss National Science Foundation for supporting this work (no. 100011-100283), and Dahlila Spagnuolo, Nathalie Bellec, Hervé Mareen, Solenne Devaud, and Anaïs Frey for their help in collecting data.

## References

- Aguero, J. E., Bloch, L., & Byrne, D. (1984). The relationships among sexual beliefs, attitudes, experience, and homophobia. *Journal of Homosexuality, 10*(1–2), 95–107. doi:10.1300/J082v10n01\_07
- Bem, S. L. (1995). Dismantling gender polarization and compulsory heterosexuality: Should we turn the volume down or up? *Journal of Sex Research, 32*, 329–334. doi:10.1080/00224499509551806
- Bosson, J. K., Prewitt-Freilino, J. L., & Taylor, J. N. (2005). Role rigidity: A problem of identity misclassification. *Journal of Personality and Social Psychology, 89*, 552–565. doi:10.1037/0022-3514.89.4.552
- Bramel, D. (1963). Selection of a target for defensive projection. *Journal of Abnormal and Social Psychology, 66*, 318–324. doi:10.1037/h0044935
- Brewer, M. B. (1991). The social self: On being the same and different at the same time. *Personality and Social Psychology Bulletin, 17*, 475–482. doi:10.1177/0146167291175001
- Burn, S. M. (2000). Heterosexuals' use of "fag" and "queer" to deride one another: A contributor to heterosexism and stigma. *Journal of Homosexuality, 40*(2), 1–12. doi:10.1300/J082v40n02\_01
- Carnaghi, A., Maass, A., & Fasoli, F. (2011). Enhancing masculinity by slandering homosexuals: The role of homophobic epithets in heterosexual gender identity. *Personality Social Psychology Bulletin, 37*, 1655–1665. doi:10.1177/0146167211424167
- Conrad, P., & Markens, S. (2001). Constructing the 'gay gene' in the news: Optimism and skepticism in the US and British Press. *Health, 5*, 373–400. doi:10.1177/136345930100500306
- Crandall, C. S., Eshleman, A., & O' Brien, L. (2002). Social norms and the expression and suppression of prejudice: The struggle for internalization. *Journal of Personality and Social Psychology, 82*, 359–378. doi:10.1037/0022-3514.82.3.359
- Dasgupta, N., & Rivera, L. M. (2006). From automatic antigay prejudice to behavior: The moderating role of conscious beliefs about gender and behavioral control. *Journal of Personality and Social Psychology, 91*, 268–280. doi:10.1037/0022-3514.91.2.268
- Diamond, L. M. (2003). What does sexual orientation orient? A biobehavioral model distinguishing romantic love and sexual desire. *Psychological Review, 110*, 173–192. doi:10.1037/0033-295X.110.1.173
- Doise, W., Deschamps, J.-C., & Meyer, G. (1978). The accentuation of intracategory similarities. In H. Tajfel (Ed.), *Differentiation between social groups* (pp. 159–168). London, UK: London Academic Press.
- Ernulf, K. E., Innala, S. M., & Whitam, F. L. (1989). Biological explanation, psychological explanation, and tolerance of homosexuals: A cross-national analysis of beliefs and attitudes. *Psychological Reports, 65*, 1003–1010. doi:10.2466/pr0.1989.65.3.1003
- Falomir, J. M., Gabarrot, F., & Mugny, G. (2009a). Group motives in threatening contexts: When a loyalty conflict paradoxically reduces the influence of an antidiscrimination ingroup norm. *European Journal of Social Psychology, 39*, 196–206. doi:10.1002/ejsp.520
- Falomir, J. M., Gabarrot, F., & Mugny, G. (2009b). Conformity and identity threat: The role of ingroup identification. *Swiss Journal of Psychology, 68*, 79–87. doi:10.1024/1421-0185.68.2.79
- Falomir, J. M., Martínez, M. C., & Paterna, C. (2010). Gender-role's attitude, perceived similarity, and sexual prejudice against gay man. *The Spanish Journal of Psychology, 13*, 839–846. doi:10.1017/S1138741600002493
- Falomir, J. M., & Mugny, G. (2009). "I'm not gay...I'm a real man!": Heterosexual men's gender self-esteem and sexual prejudice. *Personality and Social Psychology Bulletin, 35*, 1233–1243. doi:10.1177/0146167209338072
- Fassinger, R. E., Shullman, S. L., & Stevenson, M. R. (2010). Toward an affirmative lesbian, gay, bisexual, and transgender leadership paradigm. *American Psychologist, 65*, 201–215. doi:10.1037/a0018597
- Gabarrot, F., Falomir, J. M., & Mugny, G. (2009). Being similar versus being equal: Intergroup similarity moderates the influence of in-group norms on discrimination and prejudice. *British Journal of Social Psychology, 48*, 253–273. doi:10.1348/014466608X342943

- Glick, P., Gangl, C., Gibb, S., Klumpner, S., & Weinberg, E. (2007). Defensive reactions to masculinity threat: More negative affect toward effeminate (but not masculine) gay men. *Sex Roles, 57*, 55–59. doi:10.1007/s11199-007-9195-3
- Gough, B., & Edwards, G. (2008). The beer talking: Four lads, a carry out and the reproduction of masculinities. *The Sociological Review, 46*, 409–455. doi:10.1111/1467-954X.00125
- Haidt, J., Rosenberg, E., & Horn, H. (2003). Differentiating diversities: Moral diversity is not like other kinds. *Journal of Applied Social Psychology, 33*, 1–36. doi:10.1111/j.1559-1816.2003.tb02071.x
- Haslam, N., & Levy, S. R. (2006). Essentialist beliefs about homosexuality: Structure and implications for prejudice. *Personality and Social Psychology Bulletin, 32*, 471–485. doi:10.1177/0146167205276516
- Haslam, N., Rothschild, L., & Ernst, D. (2002). Are essentialist beliefs associated with prejudice? *British Journal of Social Psychology, 41*, 87–100. doi:10.1348/014466602165072
- Hegarty, P. (1997). Materializing the hypothalamus: A performative account of the 'gay brain'. *Feminism & Psychology, 7*, 355–372. doi:10.1177/0959353597073009
- Hegarty, P. (2002). "It's not a choice, it's the way we're built": Symbolic beliefs about sexual orientation in the U.S. and Britain. *Journal of Community and Applied Social Psychology, 12*, 153–166. doi:10.1002/casp.669
- Hegarty, P. (2010). A stone in the soup? Changes in sexual prejudice and essentialist beliefs among British students in a class on LGBT psychology. *Psychology and Sexuality, 1*, 3–20. doi:10.1080/19419891003634356
- Hegarty, P. (2011). Becoming curious: An invitation to the special issue on queer theory and psychology. *Psychology & Sexuality, 2*(1), 1–3. doi:10.1080/19419899.2011.536308
- Hegarty, P., & Golden, A. M. (2008). Attributional beliefs about the controllability of stigmatized traits: Antecedents or justifications of prejudice? *Journal of Applied Social Psychology, 38*, 1023–1044. doi:10.1111/j.1559-1816.2008.00337.x
- Hegarty, P., & Pratto, F. (2001). Sexual orientation beliefs: Their relationship to anti-gay attitudes and biological determinist arguments. *Journal of Homosexuality, 41*(1), 121–135. doi:10.1300/J082v41n01\_04
- Herek, G. M. (1986). On heterosexual masculinity: Some psychical consequences of the social construction of gender and sexuality. *American Behavioral Scientist, 29*, 563–577. doi:10.1177/000276486029005005
- Herek, G. M. (1988). Heterosexuals' attitudes toward lesbians and gay men: Correlates and gender differences. *Journal of Sex Research, 25*, 451–477. doi:10.1080/00224498809551476
- Herek, G. M. (2010). Sexual orientation differences as deficits: Science and stigma in the history of American psychology. *Perspectives on Psychological Science, 5*, 693–699. doi:10.1177/1745691610388770
- Herek, G. M., Gillis, J. R., & Cogan, J. C. (2009). Internalized stigma among sexual minority adults: Insights from a social psychological perspective. *Journal of Counseling Psychology, 56*, 32–43. doi:10.1037/a0014672
- Huffington Post (2011). Heterosexual pride day called for by Sao Paulo council. *Huffington Post*. Retrieved from [http://www.huffingtonpost.com/2011/08/04/heterosexual-pride-day\\_n\\_917971.html](http://www.huffingtonpost.com/2011/08/04/heterosexual-pride-day_n_917971.html)
- Jetten, J., & Spears, R. (2003). The divisive potential of differences and similarities: The role of intergroup distinctiveness in intergroup differentiation. *European Review of Social Psychology, 14*, 203–241.
- Jetten, J., Spears, R., & Postmes, T. (2004). Intergroup distinctiveness and differentiation: A meta-analytic integration. *Journal of Personality and Social Psychology, 86*, 862–879.
- Keller, J. (2005). In genes we trust: The biological component of psychological essentialism and its relationship to mechanisms of motivated social cognition. *Journal of Personality and Social Psychology, 88*, 686–702. doi:10.1037/0022-3514.88.4.686

- Keuzenkamp, S. (2011). *Acceptance of homosexuality in the Netherlands 2011: International comparison, trends and current situation*. The Hague, The Netherlands: The Netherlands Institute for Social Research.
- Kite, M. E. (1992). Individual differences in males' reactions to gay males and lesbians. *Journal of Applied Social Psychology*, *22*, 1222–1239. doi:10.1111/j.1559-1816.1992.tb02362.x
- Kitzinger, C. (1987). *The social construction of lesbianism*. London, UK: Sage.
- Krulewitz, J., & Nash, J. (1980). Effects of sex role attitudes and similarity on men's rejection of male homosexuals. *Journal of Personality and Social Psychology*, *38*, 67–74. doi:10.1037/0022-3514.38.1.6
- Lewis, G. B. (2009). Does believing homosexuality is innate increase support for gay rights? *The Policy Studies Journal*, *37*, 669–693. doi:10.1111/j.1541-0072.2009.00330.x
- Massey, S. (2009). Polymorphous prejudice: Liberating the measurement of heterosexuals' attitudes toward lesbians and gay men. *Journal of Homosexuality*, *56*(2), 147–172. doi:10.1080/00918360802623131
- Mazzocco, P. J., Cooper, L. W., & Flint, M. (2011). Different shades of racial colorblindness: The role of prejudice. *Group Processes & Intergroup Relations*, *15*, 167–178. doi:10.1177/1368430211424763
- McCreary, D. R. (1994). The male role and avoiding femininity. *Sex Roles*, *31*, 517–531.
- Minton, H. (1997). Queer theory: Historical roots and implications for psychology. *Theory and Psychology*, *7*, 337–353. doi:10.1177/0959354397073003
- Morgan, B. L. (1996). Putting the feminism into feminism scales: Introduction of a Liberal Feminist Attitude and Ideology Scale (LFAIS). *Sex Roles*, *34*(3), 359–390.
- Morton, T., Haslam, S. A., Postmes, T., & Ryan, M. K. (2006). We value what values us: The appeal of identity-affirming science. *Political Psychology*, *27*, 823–838. doi:10.1111/j.1467-9221.2006.00539.x
- Morton, T. A., & Postmes, T. (2009). When differences become essential: Minority essentialism in response to majority treatment. *Personality and Social Psychology Bulletin*, *35*, 656–668. doi:10.1177/0146167208331254
- No, S., Hong, Y., Liao, H.-Y., Lee, K., Wood, D., & Chao, M. M. (2008). Lay theory of race affects and moderates Asian Americans' responses toward American culture. *Journal of Personality and Social Psychology*, *95*, 991–1004. doi:10.1037/a0012978
- Parrott, D. J., & Zeichner, A. (2008). Determinants of anger and physical aggression based on sexual orientation: An experimental examination of hyper masculinity and exposure to male gender role violations. *Archives of Sexual Behavior*, *37*, 891–901.
- Pascoe, C. J. (2005). 'Dude, you're a fag': Adolescent masculinity and the fag discourse. *Sexualities*, *8*, 329–346. doi:10.1177/1363460708094271
- Pereira, A., Monteiro, M. B., & Camino, L. (2009). Social norms and prejudice against homosexuals. *The Spanish Journal of Psychology*, *12*, 576–584. doi:10.1017/S1138741600001943
- Phelan, J. C. (2005). Geneticization of deviant behavior and consequences for stigma: The case of mental illness. *Journal of Health and Social Behavior*, *46*, 307–322. doi:10.1177/002214650504600401
- Plaut, V. C., Thomas, K. M., & Goren, M. J. (2009). Is multiculturalism or colorblindness better for minorities? *Psychological Science*, *20*, 444–446. doi:10.1111/j.1467-9280.2009.02318.x
- Preston, K., & Stanley, K. (1987). "What's the worst thing...?" Gender-directed insults. *Sex Roles*, *17*, 209–219.
- Pruitt, M. V. (2002). Size matters: A comparison of anti- and pro-gay organizations' estimates of the size of the gay population. *Journal of Homosexuality*, *42*(3), 21–29. doi:10.1300/J082v42n03\_02
- Rangel, U., & Keller, J. (2011). Essentialism goes social: Belief in social determinism as a component of psychological essentialism. *Journal of Personality and Social Psychology*, *100*, 1056–1078. doi:10.1037/a0022401

- Richeson, J. A., & Nussbaum, R. J. (2004). The impact of multiculturalism versus color-blindness on racial bias. *Journal of Experimental Social Psychology, 40*, 417–423. doi:10.1016/j.jesp.2003.09.002
- Rosenthal, L., Levy, S. R., & Moss, I. (2011). Polyculturalism and openness about criticizing one's culture: Implications for sexual prejudice. *Group Processes & Intergroup Relations, 15*, 149–165. doi:10.1177/1368430211412801
- Saad, L. (2012). U.S. acceptance of gay/lesbian relations is the new normal. Retrieved from <http://www.gallup.com/poll/154634/Acceptance-Gay-Lesbian-Relations-New-Normal.aspx>
- Sanchez-Mazas, M., Roux, P., & Mugny, G. (1994). When the outgroup becomes ingroup and when the ingroup becomes outgroup: Xenophobia and social categorization in a resource allocation task. *European Journal of Social Psychology, 24*, 417–423. doi:10.1002/ejsp.2420240309
- Schmitt, M., Lehmler, J. J., & Walsh, A. L. (2007). The role of heterosexual identity threat in differential support for same-sex 'civil unions' versus 'marriages'. *Group Processes & Intergroup Relations, 10*, 443–455. doi:10.1177/1368430207081534
- Stotzer, R. L. (2009). Straight allies: Supportive attitudes toward lesbians, gay men, and bisexuals in a college sample. *Sex Roles, 60*, 67–80. doi:10.1007/s1199-008-9508-1
- Swim, J. K., Ferguson, M. J., & Hyers, L. L. (1999). Avoiding stigma by association: Subtle prejudice against lesbians in the form of social distancing. *Basic and Applied Social Psychology, 21*, 61–68. doi:10.1207/s15324834basps2101\_6
- Tajfel, H., & Turner, J. C. (1986). The social identity theory of intergroup behaviour. In S. Worchel & W. G. Austin (Eds.), *Psychology of intergroup relations* (pp. 7–24). Chicago, IL: Nelson-Hall.
- Talley, A. E., & Bettencourt, A. B. (2008). Evaluations and aggression directed at a gay male target: The role of threat and antigay prejudice. *Journal of Applied Social Psychology, 38*, 647–683. doi:10.1111/j.1559-1816.2007.00321.x
- The Danish Institute for Human Rights (2012). *Study on homophobia, transphobia and discrimination on grounds of sexual orientation and gender identity*. Sociological Report: Switzerland. Copenhagen, Denmark: DIHR.
- Turner, J. C., Hogg, M. A., Oakes, P. J., Reicher, S. D., & Wetherell, M. S. (1987). *Rediscovering the social group: A self-categorization theory*. Cambridge, MA: Basil Blackwell Inc.
- Tygart, C. E. (2000). Genetic causation attribution and public support of gay rights. *International Journal of Public Opinion Research, 12*, 259–275. doi:10.1093/ijpor/12.3.259
- Vandello, J. A., & Bosson, J. K. (2013). Hard won and easily lost: A review and synthesis of theory and research on precarious manhood. *Psychology of Men & Masculinity, 14*, 101–113. doi:10.1037/a0029826
- Verkuyten, M. (2006). Multicultural recognition and ethnic minority rights: A social identity perspective. *European Review of Social Psychology, 17*, 148–184. doi:10.1080/10463280600937418
- Vorauer, J. D., Gagnon, A., & Sasaki, S. J. (2009). Salient intergroup ideology and intergroup interaction. *Psychological Science, 20*, 838–845. doi:10.1111/j.1467-9280.2009.02369.x
- Weiner, B. (1995). *Judgments of responsibility: Foundations for a theory of social conduct*. New York, NY: Guilford Press.
- Whitley, B. E., Jr. (1990). The relationship of heterosexuals' attributions for the causes of homosexuality to attitudes toward lesbians and gay men. *Personality and Social Psychology Bulletin, 16*, 369–377. doi:10.1177/0146167290162016
- Whitley, B. E. (2001). Gender-role variables and attitudes toward homosexuality. *Sex Roles, 45*, 691–721. doi:10.1023/A:1015640318045
- Wilkinson, W. W. (2004). Authoritarian hegemony, dimensions of masculinity, and male antigay attitudes. *Psychology of Men & Masculinity, 5*, 121–131. doi:10.1037/1524-9220.5.2.121
- Williams, M. J., & Eberhardt, J. L. (2008). Biological conceptions of race and the motivation to cross racial boundaries. *Journal of Personality and Social Psychology, 94*, 1023–1047. doi:10.1037/0022-3514.94.6.1033

- Wohl, M. J. A., Giguère, B., Branscombe, N. R., & McVicar, D. N. (2011). One day we might be no more: Collective angst and protective action from potential distinctiveness loss. *European Journal of Social Psychology, 41*, 289–300. doi:10.1002/ejsp.773
- Wolsko, C., Park, B., Judd, C. M., & Wittenbrink, B. (2000). Framing interethnic ideology: Effects of multicultural and color-blind perspectives on judgments of groups and individuals. *Journal of Personality and Social Psychology, 78*, 635–654. doi:10.1037//0022-3514.78.4.635
- World Value Survey (2009). *World Value Survey 1981–2008 official aggregate v.20090902, 2009*. Retrieved from <http://www.worldvaluessurvey.org>. Aggregate File Producer: ASEP/JDS Data Archive, Madrid, Spain: World Values Survey Association.
- Yzerbyt, V., Rocher, S., & Schadron, G. (1997). Stereotypes as explanations: A subjective essentialistic view of group perception. In R. Spears, P. J. Oakes, N. Ellemers & S. A. Haslam (Eds.), *The social psychology of stereotyping and group life* (pp. 20–50). Malden, MA: Blackwell.

Received 17 July 2012; revised version received 23 August 2013