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"I'm not gay... I'm a real man!": Heterosexual men's gender self-esteem and sexual prejudice

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Abstract

Five studies examined the hypothesis that heterosexual men, but not heterosexual women, endorse negative attitudes toward homosexuality (i.e., sexual prejudice) in order to maintain a positive gender-related identity that is unambiguously different from a homosexual identity. Studies 1 and 2 showed that men's (but not women's) gender self-esteem (but not personal self-esteem) was positively related to sexual prejudice: the more positive heterosexual men's gender self-esteem, the more negative their attitude toward homosexuality. Studies 3 and 4 showed that this link appears specifically among men motivated to maintain psychological distance from gay men. Finally, Study 5 experimentally manipulated the perceived differences between homosexual and heterosexual men (control vs. no-differences vs. differences conditions). The previously observed link between men's gender self-esteem and sexual prejudice appeared in the control and no-differences conditions, but disappeared in the differences condition. These findings are discussed in terms of men's attitudes as a defensive function against threat to masculinity.

Key words: Gender self-esteem, intergroup attitudes, sex differences, sexual prejudice, intergroup differentiation, identity threat

"I'm not gay...I'm a real man!": Heterosexual men's gender self-esteem and sexual prejudice

Homophobia, or more broadly *sexual prejudice* (i.e., negative attitude toward an individual because of her or his sexual orientation), is one of the most deeply held prejudices in Western countries (e.g., Clarke, Kitzinger, & Potter, 2004; Herek, 2000b; Kite & Whitley, 1996, 1998; Yang, 1999), and is rooted in strong psychosocial mechanisms making it resistant to change. Own sex constitutes one of the most robust and powerful predictors of sexual prejudice: heterosexual men show more negative attitudes toward homosexuality than heterosexual women (e.g., Herek, 1988, 2002; Kite & Whitley, 1996, 1998). The present research was carried out in order to better understand this difference in terms of a threat to masculinity—i.e., heterosexual men's greater motivation, as compared to women, to maintain a positive and distinctive gender identity.

Despite the fact that sexual prejudice correlates positively with sexism (e.g., Appleby, 1995; Kilianski, 2003) and with negative attitudes toward other social minorities (e.g., Beran, Claybaker, Dillon, & Haverkamp, 1992; Ellis, Kitzinger, & Wilkinson, 2002), some theorists suggest that homophobia is not a 'mere' prejudice against homosexuals, but a consequence of the social construction of *gender identity* (e.g., Kimmel, 1997; Plummer, 2005). They argue that sex differences in sexual prejudice may be understood as a function of the different meanings of masculinity and femininity in contemporary Western culture. *Hegemonic masculinity* is considered as the true nature of men, and involves mainly heterosexism (i.e., an ideological system that focuses on the primacy of heterosexuality and the processes maintaining heterosexuals' social power and privilege) and opposition to femininity (see also Hegarty, Pratto, & Lemieux, 2004; Herek, 1992, 2000b; Kite & Whitley, 1998). Accordingly, the very definition of masculinity involves *not* being homosexual, whereas this is not the case

for femininity, and sexual prejudice is an inner organizing principle of our cultural meaning of manhood (Kimmel, 1997; Plummer, 2005).

If being distinctive and different from a homosexual is a part of what it means to be a real man, rather than to be a real woman, masculinity should be more strict and important to men's identity than femininity is to women. Indeed, overall people expect men to be consistently masculine, and women to be consistently feminine, but masculinity appears to be a narrower concept than femininity in our society (e.g., Hort, Fagot, & Leinbach, 1990; Martin, 1990). The link between gender characteristics and perceived sexual orientation is stronger for men than for women (e.g., Deaux & Lewis, 1984; Kite & Deaux, 1987; Page & Yee, 1985). As compared to heterosexual women, heterosexual men are more concerned about not appearing to be feminine or homosexual (Herek, 1988; Maccoby, 1987), and therefore display more rigid adherence to gender-role norms, and feel greater discomfort during role violation (Bosson, Prewitt-Freilino, & Taylor, 2006, studies 1 & 4).

Despite the fact that adherence to traditional gender roles is overall related to negative attitudes toward gender-role violators (e.g., Laner & Laner, 1979, 1980; Pleck, 1981; Rudman & Fairchild, 2004; Whitley, 2002), gender-role violation seems more negative for men than for women (e.g., Feinman, 1981; Herek, 1986a; Louderback & Whitley, 1997; Phoenix, Prosh, & Pattman, 2003). Indeed, it is not surprising that verbal insults such as 'fag' and 'queer' are considered as a worse affront to men rather than the equivalent are to women (Burn, 2000; Preston & Stanley, 1987). Additionally, masculine identity constitutes a significant predictor of heterosexual men's sexual prejudice (Kilianski, 2003; Sinn, 1997; Theodore & Basow, 2000), in particular as regards involvement in and acceptance of the traditional male gender role (Whitley, 2002), and endorsement of traditional gender-roles mediates the effect of respondent's sex on sexual prejudice (Kite & Whitley, 1996).

Overall, these findings suggest that homosexuality constitutes a *threat* specifically to our cultural understanding of masculinity (i.e., the hegemonic masculinity; Herek, 1986a, 2000a, 2002; Kimmel, 1997; Krulewitz & Nash, 1980; Pharr, 1988; Plummer, 2005; Whitley, 2002). For instance, when bogus feedback to heterosexual men portrayed them as scoring lower than the average on a masculinity scale, they behaved more aggressively against a homosexual partner, as compared to a heterosexual partner, during an interactive learning task (Talley & Bettencourt, 2008). These findings also suggest that sexual prejudice may accomplish the defensive function of maintaining a positive and distinctive gender identity (Herek, 1986b, 1987): men would be more rejecting of homosexuals in order to fulfill their need to affirm their masculinity by distancing themselves from those with whom they do not want to be confused. Indeed, sexual prejudice is related to a greater perceived dissimilarity between the self and homosexuals, a pattern observed specifically for heterosexual men (Herek, 1988; Krulewitz & Nash, 1980; Talley & Bettencourt, 2008). Considering psychological distancing as a consequence of perceived threat to identity (Pyszczynski et al., 1995; Talley & Bettencourt, 2008), overall these findings provide support for the hypothesis that heterosexual men's sexual prejudice is related to a threat to their gender identity.

The present research

The present research aimed to extend our understanding of the role of threat in heterosexual men's sexual prejudice by focusing on gender identity processes. More specifically, we examined the extent to which sexual prejudice is related to men's need to maintain a positive and distinct gender self-esteem. According to Social Identity Theory (Tajfel & Turner, 1986), group members derive their self-esteem from their group membership, and are motivated to achieve a positive and distinctive social identity by comparing their ingroup to relevant outgroups. When a relevant outgroup threatens ingroup identity by preventing positive distinctiveness (e.g., because the outgroup is perceived as too similar to the ingroup), group members cope with this threat by increasing intergroup distinctiveness, intergroup discrimination, and negative evaluation of the outgroup (Branscombe, Ellemers, Spears & Doosje, 1999; for a review of research on the threat to distinctiveness and its consequences in terms of differentiation and ingroup bias, see Jetten & Spears, 2003).

Accordingly, social identity theory's postulates may allow a complementary understanding of the sex differences in sexual prejudice considered above. Heterosexual men, rather more than heterosexual women, should derive their self-concept and self-esteem from their male heterosexual group membership. They should then struggle more than women to achieve positive comparisons with homosexuals, who challenge the needed intergroup distinctiveness given that they share the same sex category, and seek to differentiate their own group from this relevant but threatening outgroup in order to preserve a distinctive social identity and maintain a positive gender self-esteem. These considerations lead to the main hypothesis of the present research: heterosexual men should discriminate more than women against homosexuals in order to satisfy their positive distinctiveness needs.

Three specific hypotheses were tested across five studies in order to examine the role of threat to masculinity in the sexual differences in sexual prejudice. First, sexual prejudice should be more related to heterosexual men's positive gender self-esteem than to heterosexual women's positive gender self-esteem (Hypothesis 1), but not necessarily to personal selfesteem. Second, to the extent that psychological distancing reflects a threat to their identity, the link between men's positive gender self-esteem and sexual prejudice should be stronger among heterosexual men who are motivated to distance themselves from homosexuals (e.g., to avoid being mistaken for homosexuals; Hypothesis 2). Finally, given that sexual prejudice is expected to be related to the need to affirm a positive and differentiated gender identity, the link between men's self-esteem and sexual prejudice should weaken if psychological distancing is guaranteed in other ways. Accordingly, we expected the stronger prejudice shown by heterosexual men with higher gender self-esteem to be reduced when differentiation between homosexuals and heterosexuals is highlighted (Hypothesis 3a). This effect should appear because confirmed differentiation should reduce the need for further differentiation (Hypothesis 3b). Studies 1 and 2 tested the first hypothesis, Studies 3 and 4 tested the second hypothesis, and Study 5 tested the third hypotheses.

Studies 1 & 2

These studies were carried out to provide a first test of the hypothesis that sexual prejudice is related to men's gender self-esteem more than it is to women's gender self-esteem (Hypothesis 1). Furthermore, this effect should not necessarily be observed when considering personal self-esteem.

Method

Participants and procedure. Of the initial participants in the two studies (59 in Study 1 and 150 in Study 2), 56 (27 of whom male; age: M = 22.11, SD = 2.04) and 132 (67 of whom male; age: M = 41.46, SD = 14.19), respectively, were retained for the analyses because of their heterosexual orientation (at the end of the study they defined themselves as heterosexuals, reported not having had sexual intercourse with a same-sex person, and did not indicate they were attracted to same-sex persons). University students acted as experimenters and recruited participants either on the university campus (all were university students) in Study 1 or outside the university in Study 2 (only 17 were students). In order to support independent assessment of self-esteem and prejudice, participants were asked to complete questionnaires for independent and unrelated studies, each one being under the responsibility of a different researcher.

Personal self-esteem. Personal self-esteem was assessed either (Study 1) through three items ("Overall, what esteem do you have of yourself?", 1= 'very high' and 7= 'very low'; "Overall, what degree of pride do you have in yourself?", 1= 'very low' and 7= 'very high'; and "Overall, what is your degree of satisfaction with yourself?", 1= 'very low' and 7= 'very high'; M = 4.67, SD = 0.99, $\alpha = .79$) or (Study 2) by the Rosenberg (1965) 10-item scale (M =5.39, SD = 0.81, $\alpha = .77$). Male participants displayed higher personal self-esteem than female participants (Study 1: M = 5.08, SD = 0.96 versus M = 4.29, SD = 0.88; Study 2: M =5.51, SD = 0.76 versus M = 5.27, SD = 0.85). The difference was significant in Study 1, t(54)= 3.18, p < .002, but not in Study 2, t(130) = 1.64, p = .11.

Gender self-esteem. Three items assessed gender self-esteem: "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" (1= 'strongly agree' and 7= 'strongly disagree'; Study 1: M = 5.08, SD = 0.83, $\alpha = .84$; Study 2: M = 5.54, SD = 1.25, $\alpha = .76$). In Study 1, male participants (M = 5.34, SD = 0.85) had higher gender related self-esteem than female participants (M = 4.83, SD = 0.72), t(54) = 2.38, p < .03, but no sex differences were observed in Study 2 (M = 5.36, SD = 1.25, and M = 5.70, SD = 1.24, respectively), t(128) = 1.56, p = .13.

Attitude toward homosexuality. We developed a 25-item scale to assess attitude toward homosexuality. Items related to *morality* (e.g., "Homosexuality is contrary to the values of the family", "Homosexuality is a natural expression of affection and sexuality"), *feelings* toward homosexuals (e.g., "I feel sympathy for homosexuals?" or "I feel contempt for homosexuals?"), *civil rights* endorsement (e.g., "Homosexual couples should have the right to adopt children"), and acceptance of *contact* with homosexuals (e.g., "I'd have no problem sharing an apartment with a homosexual"). Scales ranged from 1 'not at all in agreement' to 7 'absolutely in agreement'. A score for attitude toward homosexuality was computed by

averaging the scores for the 25 items (Study 1: M = 5.08, SD = 1.31, $\alpha = .96$; Study 2: M = 4.82, SD = 1.06, $\alpha = .91$). A pilot study including heterosexual participants (38 women and 29 men) provided convergent validity for this scale; positive attitude toward homosexuality was negatively correlated with the Modern Homonegativity Scale (Morrison & Morrison, 2002; adapted for homosexuals in general), r = -.61, p < .001, and with the Attitude Toward Lesbians and Gays (Herek, 1988), r = -.73, p < .001 (-.71 for the gays and -.58 for the lesbians sub-scales).

Results

Positive attitude toward homosexuality was regressed on participant's sex (women vs. men), and either personal self-esteem or gender self-esteem (standardized scores), as well as the interaction term between these factors. As regards gender self-esteem (Study 1: $R^2 = .45$, F(3,52) = 14.68, p < .001; Study 2: $R^2 = .16$, F(3,126) = 8.24, p < .001), the main effect of participants' sex was significant both for Study 1, t(52) = 5.52, p < .001, and Study 2, t(126) = 3.85, p < .001. As might be expected, women showed more positive attitudes (M = 5.86, and M = 5.11) than men (M = 4.25, and M = 4.51). The main effect of gender self-esteem was significant in Study 2, t(126) = 3.06, p = .003; attitude became more negative as gender self-esteem became more positive ($\beta = -.25$).

More interestingly, the expected gender self-esteem by participants' sex interaction was significant in Study 1, t(52) = 2.47, p < .02, and almost reached the significance level in Study 2, t(126) = 1.91, p = .06. These interactions are illustrated in Figure 1. Slope analyses showed that attitude was predicted by men's gender self-esteem in both Study 1 ($\beta = -.24$), t(52) = 2.51, p < .02, and Study 2 ($\beta = -.40$), t(126) = 3.47, p < .001, but not by women's gender self-esteem ($\beta = .12$, and $\beta = -.09$, respectively), t(52) = 1.18, p = .24, and t(126) =0.82, p = .41. Regarding Study 1, female participants always showed more positive attitudes than male participants, but this difference was stronger for high conditional levels of gender self-esteem (+1SD), t(52) = 5.56, p < .001, than for low conditional levels (-1SD), t(52) = 2.14, p < .04. Regarding Study 2, male participants did not differ from women for low conditional levels of gender self-esteem, t(126) = 1.37, p = .17, but their attitude was more negative than women's attitude for high conditional levels, t(126) = 4.05, p < .001.

Finally, the analyses considering personal self-esteem did not show any significant overall effect of self-esteem in Study 1, t(52) = 0.89, p = .37, or in Study 2, t(128) = 0.01, p = .99. The interaction effects were also non-significant, t(52) = 1.07, p = .29, t(128) = 0.72, p = .47, respectively.

Discussion

The results of these two studies showed that sexual prejudice was related to heterosexual men's gender self-esteem, but not to heterosexual women's gender self-esteem or to personal self-esteem in either sex. Sexual prejudice increased as men's gender selfesteem became more positive. It is worth noting that these findings are replicated in two different samples: university students (Study 1) and older participants (Study 2). Despite the fact that the gender self-esteem by participants' gender interaction was significant in Study 1 but only marginally significant in Study 2, the two most relevant contrasts were significant and consistent across the two studies: gender self-esteem predicted prejudice for men but not for women, and men's prejudice was higher than women's prejudice for high conditional levels of gender self-esteem.

Furthermore, this pattern of findings was not observed with regard to personal selfesteem, despite the fact that we used two different measures in Study 1 and Study 2. This finding suggests that male heterosexual participants' positive self-evaluation regarding their status as a man (e.g., their pride in being a man), rather than their positive personal selfevaluation, underlies sexual prejudice. Previous research has suggested that sexual prejudice is the consequence of general mechanisms, and consequently related both to prejudice against other minorities (Beran et al., 1992; Ellis et al., 2002), and to personal self-esteem (Fein & Spencer, 1997). However, our findings suggest rather that sexual prejudice has some specificity regarding gender self-esteem and masculine identity (Herek, 2000a; Kite & Whitley, 1998).

Overall, these two studies provided evidence for our first hypothesis, but they only provided indirect evidence for the nature of identity processes. Previous research has shown that men's sexual prejudice is related to greater perceived differences between themselves and gay men (e.g. Hereck, 1988; Talley & Bettencourt, 2008), that heterosexual men are afraid about being misclassified as homosexuals (Bosson et al., 2005), and that psychological distancing from homosexuals results from a threat to identity (Talley & Bettencourt, 2008; see also Pyszczynski et al., 1995). On the basis of these considerations, our second hypothesis is that men's sexual prejudice should be linked to gender self-esteem specifically among men who are motivated to maintain a positive heterosexual identity that is differentiated from a homosexual identity (i.e., who distance themselves from homosexuals).

Studies 3 & 4

The present studies examined whether participants' motivation to distance self from homosexuals would moderate the previously observed link between heterosexual men's gender self-esteem and sexual prejudice. This hypothesis was examined by assessing perceived distance from homosexuals in two different ways: the perceived likelihood of being mistaken as homosexual (Study 3), and the perceived differences between oneself and gay men (Study 4). Since the first two studies showed that gender self-esteem predicted men's sexual prejudice but not women's sexual prejudice, the next three studies used samples of heterosexual men only. Similarly, since personal self-esteem had no effect in the first two studies, this was not measured in the following studies. We expected men's gender selfesteem to predict sexual prejudice specifically among men who show the greatest psychological distancing from homosexuals.

Method

Participants and procedure. Participants were recruited by different experimenters within the university campus. The responses of ninety-five men in Study 3 (age: M = 25.26, SD = 4.67; about 92% of them were university students), and 45 men in Study 4 (age: M = 29.33, SD = 9.75; 48.8% of them were university students), were retained for the analyses as a function of their heterosexual orientation (see Studies 1 & 2).

Gender self-esteem (Study 3: M = 5.69, SD = 1.13, $\alpha = .93$; Study 4: M = 5.43, SD = 1.03, $\alpha = .85$) and attitude toward homosexuality (Study 3: M = 4.43, SD = 1.36, $\alpha = .95$; Study 4: M = 4.71, SD = 1.30, $\alpha = .95$) were assessed as in the previous studies.

Perceived distance from homosexuals. One item assessed participants' distance from homosexuals in Study 3: "It is likely that someone could mistake me for a homosexual" (1= 'not at all' and 7= 'absolutely'; M = 3.11, SD = 1.82). Regarding Study 4, participants were asked to what extent they thought they were like gay men in several domains (i.e., emotions, needs, wishes, intimate relationships, friend relationships, professional relationships, and in general (1 = 'absolutely not' and 7 = 'absolutely yes'). An average score was computed (M = 3.71, SD = 1.39; $\alpha = .90$). In both studies, lower scores reflect higher perceived distance from homosexuals. Gender positive self-esteem was significantly correlated with lower perceived distance in Study 3, r(95) = -.27, p = .006, but only approached significance in Study 4, r(45) = -.24, p < .11, likely because of a power issue.

Results

Attitude toward homosexuality was regressed on gender self-esteem and perceived distance from homosexuals (continuous standardized scores), as well as on the interaction between these two factors (Study 3: $R^2 = .22$, F(3,91) = 8.76, p < .001; Study 4: $R^2 = .56$,

F(3,41) = 17.42, p < .001). The main effects for perceived distance were significant in both studies; attitude was less positive as distance increased, $\beta = .36, t(91) = 3.85, p < .001$, and $\beta = .30, t(41) = 2.63, p < .02$, respectively. The main effect for gender self-esteem was significant only in Study 3 ($\beta = -.38$), t(41) = 3.54, p < .001. However, and as expected, the predicted perceived distance by gender self-esteem interaction was significant in both studies, t(91) = 2.12, p < .04, and t(41) = 2.96, p = .005, respectively. These interactions are illustrated in Figure 2.

Slope analyses showed that attitude became more negative as men's gender selfesteem increased for high conditional levels (+1*SD*) of perceived distance (Study 3: β = -.33, t(91) = 2.50, p < .02; Study 4: β = -.71, t(41) = 4.94, p < .001), but not for low conditional levels (-1*SD*; β = .10, t(91) = 0.72, p = .47, and β = -.04, t(41) = 0.27, p = .79, respectively). Furthermore, sexual prejudice was related to perceived distance for high conditional levels of gender self-esteem (β = .58, t(91) > 4.36, p < .001, and β = .64, t(41) = 5.05, p < .001), but not for low conditional levels of gender self-esteem (β = .14, t(91) = 0.96, p = .33, and β = -.03, t(41) = 0.16, p < .79).

Discussion

The results of studies 3 and 4 extended our previous findings in several ways. First, participants' sexual prejudice was related to perceived distance; attitude was more negative among participants with a higher desire for distance from homosexuals. This finding confirms previous proposals concerning heterosexual men's motivation to avoid being labeled as gays (Bosson et al., 2005; Herek, 2002), and extend them by directly showing the link between such a motivation and prejudice against homosexuals (see also Herek, 1988). More interestingly, the previously observed link between sexual prejudice and heterosexual men's gender self-esteem appeared to be moderated by participants' perceived distance. Sexual prejudice was related to heterosexual men's gender self-esteem when perceived distance was

high, but not when psychological distance was low. The findings from studies 3 and 4 provide convergent evidence for the overall hypothesis that the need to maintain a positive gender identity, distinctive from homosexuals, underlies the link between sexual prejudice and men's gender self-esteem.

Although the findings observed in these two studies provide support for our second hypothesis, one limitation remains with regards to the correlational nature of the evidence provided for the differentiation motive. Indeed, we derived predictions on the basis of previous research suggesting that psychological distancing is the consequence of a threat to one's identity (Talley & Bettencourt, 2008; see also Pyszczynski et al., 1995). Accordingly, the link between prejudice and gender self-esteem was observed among heterosexual men distancing from homosexual men (Studies 3 & 4). However, alternative predictions could also be sustained given that psychological similarity may constitute a source of threat: if prejudice is motivated by differentiation needs, the link between gender self-esteem and prejudice could also be expected as greater among men with low perceived distance from homosexuals. In order to provide a clear-cut test of the hypothesis Study 5 used an experimental approach in order to test whether sexual prejudice is the consequence of heterosexual men's motivation to distance from homosexual men.

Study 5

Study 5 was carried out in order to test the hypothesis that the link between men's gender self-esteem and sexual prejudice observed in our previous studies will disappear once identity distinctiveness is asserted other than by showing prejudice. Perceived similarity between homosexuals and heterosexuals was manipulated with regard to the biological differences between them. Past correlational research has consistently shown that the belief that homosexuality has a biological basis is related to less sexual prejudice (e.g., Aguero,

Bloch, & Byrne, 1984; Ennulf, Innala, & Whitam, 1989; Tygart, 2000; Whitley, 1990). In line with attribution theory (Weiner, 1995), this pattern is explained by the fact that immutable and uncontrollable behaviors are less stigmatized. Positive attitudes toward homosexuality may also be the consequence of the current social tendency to regard homosexuality as a biologically determined variant of human sexuality (e.g., Landén & Innala, 2002), and to construct these beliefs as pro-gays beliefs (Hegarty, 2002).

In line with other authors (e.g., Haslam & Levy, 2006; see also Verkuyten, 2003), we consider that beliefs in the biological basis of homosexuality may also be relevant to identity-related mechanisms such as those examined here. Given the assumed heterosexual men's motivation to preserve a positive and distinct identity by keeping gay men at a distance, we reasoned that attributing a biological basis to homosexuality may guarantee psychological distancing, and thus satisfy heterosexual men's need to perceive themselves as different from homosexuals. This prediction is also consistent with previous research showing that discomfort associated with the risk of being misclassified as homosexual disappeared when individuals disclaimed their membership of this group (Bosson et al., 2005). Conversely, attributing similar biological characteristics to homosexual and heterosexual men could threaten their need for distinctiveness.

Participants in the present study were told about one of two different scientific studies: homosexual and heterosexual men were said to demonstrably share the same biological bases (no-differences condition), or were said that they did differ (differences condition). In a third condition, no information was provided to participants (control condition). On the basis of previous findings, we expected gender self-esteem to increase sexual prejudice in the control condition. We also predicted that this pattern should be maintained in the no-differences condition, given that the need for psychological distancing should remain. More interestingly, sexual prejudice, as well as the relationship between gender self-esteem and sexual prejudice, should be reduced in the differences condition as compared to the other two conditions (Hypothesis 3a). Finally, we anticipated that highlighting heterosexual men's differences from gay men may reduce the need to perceive them as different. As a consequence, such a reduction in motivation to maintain psychological distance should decrease prejudice, since similarity is expected to be less threatening (Hypothesis 3b).

Method

Participants and procedure. Eighty-five heterosexual men participated in this study (age: M = 25.16, SD = 5.52; 49.4% of them were university students). Gender self-esteem (M = 5.47, SD = 0.91, $\alpha = .72$), perceived distance (M = 4.19, SD = 1.55, $\alpha = .92$), and attitude toward homosexuality (M = 4.37, SD = 1.11, $\alpha = .94$) were assessed as in Study 4. Participants were randomly assigned to one of the three experimental conditions: biological differences, no-biological differences, or the control condition.

Experimental manipulation. After the gender self-esteem measure, some participants were informed about the results of several studies comparing women and heterosexual and homosexual men with regards to their genetic structure, mother's androgen rate during pregnancy, and physiology (i.e., a part of the hypothalamus responsible for sexual orientation). In the *differences condition*, summarized results converged to confirm that male homosexuality has a specific biological basis, and that biological differences between homosexual and heterosexual men are unequivocally proved. In the *no-differences condition*, the same research converged to show that male homosexuality does not have a specific biological basis, thereby providing evidence for the lack of biological differences between homosexual and heterosexual men. No information was provided in the control condition. Immediately after this manipulation, participants were then asked to indicate whether male homosexuality was biologically determined or not (1= 'not at all' and 7 = 'absolutely'; M =

3.67, SD = 1.93). Finally, participants completed the perceived similarity and attitude measures.

Results

Following the suggestions of Aiken and West (1991) for testing differences between experimental conditions in a multiple regression framework, two orthogonal contrasts were computed. The first contrast compared the differences condition to the two other conditions (differences vs. no-differences and control), and the second contrast compared these two latter conditions (no-differences vs. control). Regression analyses were performed by introducing the two orthogonal contrasts, the standardized scores for gender self-esteem, as well as the two interactions between gender self-esteem and each contrast as predictors.

Perceived biological origin. The analysis showed that the first contrast was marginally significant, t(79) = 1.83, p = .07. The biological origin attributed to male homosexuality tended to be higher in the differences condition (M = 4.24, SD = 1.86) than in the nodifferences (M = 3.53, SD = 1.91) and control (M = 3.21, SD = 1.95) conditions. The contrast between these two remaining conditions was not significant, t(79) = 0.40, p = .68. Furthermore, neither the main effect of self-esteem, nor the two interactions between self-esteem and each contrast approached the significance level, t < 0.86.

Perceived distance. The regression analysis showed as significant only the first contrast, t(79) = 2.14, p = .035. As expected, distancing from homosexual men (i.e., lower scores mean higher distance) was lower in the differences condition (M = 4.71, SD = 1.39) than in the control (M = 3.77, SD = 1.35) and no-differences (M = 4.08, SD = 1.79) conditions. The contrast between these two remaining conditions was not significant, t(79) = 0.92, p = .36, and nor were the effects associated with self-esteem, t < 1.42.

Attitude toward homosexuality. Regarding attitude toward homosexuality ($R^2 = .19$, F(5,79) = 3.88, p = .003), the first contrast was significant, t(79) = 2.57, p = .012. As

expected, attitude was more positive in the differences condition (M = 4.81, SD = 1.06) than in the control (M = 4.16, SD = 0.92) and no-differences conditions (M = 4.14, SD = 1.23). The analysis also revealed a significant main effect for gender self-esteem ($\beta = -.31$), t(79) = 3.05, p = .003. Attitude became less positive as gender self-esteem increased. Finally, the interaction between gender self-esteem and the first contrast approached the significance level, t(79) = 1.89, p = .06. This interaction is represented in Figure 3.

Heterosexual men's gender self-esteem was negatively related to positive attitude toward homosexuality in the control condition ($\beta = -.21$), t(79) = 2.04, p = .044, as well as in the no-differences condition ($\beta = -.28$), t(79) = 2.73, p = .008. However, this relationship disappeared in the differences condition ($\beta = -.03$), t(79) = 0.32, p = .74. For low conditional levels of gender self-esteem, attitude was as positive in the differences condition (M = 4.86) as in the control (M = 4.51), t(79) = 0.98, p = .33, and no-differences conditions (M = 4.88), t(79) = 0.88, p = .38. For high conditional levels of gender self-esteem, attitude was more positive in the differences condition (M = 4.75) than in the control, (M = 3.65), t(79) = 2.61, p = .012, and no-differences conditions (M = 3.76), t(79) = 2.77, p = .007.

Since previously described analyses showed that perceived distance was predicted by this first contrast ($\beta = .23$), p = .035, we examined whether perceived distance was a significant mediator for the experimental effect on attitude. The main regression analysis was carried out by introducing perceived distance as an additional predictor. This analysis showed that the previously observed first contrast effect on attitude ($\beta = .26$), t(79) = 2.57, p = .012, was significantly reduced when perceived distance was also considered ($\beta = .16$), t(78) =1.73, p = .09, z = 1.95, p < .05, whereas perceived distance significantly predicted attitude (β = .43), t(78) = 4.54, p < .001. Accordingly, it may be concluded that perceived distance mediated the effect of differences condition (as opposed to control and no-differences conditions) on sexual prejudice. In sum, induced biological differences reduced perceived distance, which contributed to reduce sexual prejudice.

Discussion

In this study, sexual prejudice was as high in the control condition as in the nodifferences condition, and the previously observed link between sexual prejudice and gender self-esteem was observed both in the control and no-differences conditions. The results for the control condition where no information was provided were in agreement with the results observed in Studies 1 and 2, and the fact that this link remained significant in the nodifferences condition seems of particular relevance. Indeed, perceived biological origin was lower in the control and no-differences conditions than in the differences condition. The nodifferences explanation could thus be considered a default explanation. These conditions went hand-in-hand regarding the predicted link between sexual prejudice and gender self-esteem. However, as expected, sexual prejudice was reduced in the differences condition, and was no longer predicted by heterosexual men's gender self-esteem (Hypothesis 3a). Furthermore, highlighting biological differences resulted in a decrease of distancing from homosexuals, which mediated the effect of experimental induction on sexual prejudice (Hypothesis 3b). Overall, these findings give credence to the notion that heterosexual men with positive gender self-esteem have sexual prejudices in order to maintain a positive gender identity that is differentiated from that of homosexual men. The present study contributed to confirmation of this hypothesis by showing that sexual prejudice is no longer related to gender self-esteem when this need for differentiation is accomplished by other means, in the current case by highlighting biological differences.

Overall discussion

Five studies have examined the extent to which sexual prejudice is related to heterosexual men's gender self-esteem. The results of the first two studies confirmed the hypothesis that sexual prejudice is predicted by heterosexual men's gender positive selfesteem, but not by heterosexual women's gender self-esteem or by personal self-esteem. The results of Studies 3 and 4 showed this pattern to be specific to heterosexual men with high scores on two measures of distance from homosexuals. To the extent that psychological distancing is a consequence of identity threat (e.g., Pyszczynski et al., 1995; Talley & Bettencourt, 2008), these findings provide support for the hypothesis that heterosexual men's sexual prejudice is related to a threat to gender identity, and to specific identity differentiation processes (see Jetten & Spears, 2003) from homosexuals. Finally, Study 5 showed that both sexual prejudice and the link between sexual prejudice and gender self-esteem were reduced when participants were told that homosexual and heterosexual men were biologically different. Indeed, enhancing a differentiated biological basis for homosexuality reduced the need for psychological distancing, as suggested by the mediation analysis, and consequently allowed a reduction in prejudice. These findings provide additional support for the hypothesis that heterosexual men's sexual prejudice is related to a motivation to positively differentiate themselves from homosexual men, since prejudice is reduced once they have a guarantee that they are unambiguously distinct from gays.

Despite the robust and consistent evidence supporting our hypotheses, the results of the present research are limited in several ways, and future research should address these concerns. Firstly, all our demonstrations focused on the link between sexual prejudice and gender self-esteem. However, in all five studies gender self-esteem was measured through a three-item scale. Despite the good reliability of the measure, and the consistent pattern of findings observed across the five studies, future research replicating these findings with other measures of gender self-esteem, and extending them to other measures of gender identity or gender-role self-concept (e.g., hypermasculinity; see Whitley, 2002), would be welcome.

Second, our hypotheses and research focused on attitudes toward homosexuality, without differentiating between attitude toward lesbians and gay men. However, previous research has suggested the importance of assessing attitudes toward these two groups separately (e.g., Herek, 1994). Indeed, our theoretical approach would suggest that the predicted pattern of effects should be more apparent with respect to heterosexual men's attitudes toward gay men than toward lesbians, and the observed findings may be conditioned by the fact that gay men are more representative of the homosexual group and homosexuality than lesbians (e.g., Herek, 2000a). Even if attitudes toward gay men and lesbians are strongly correlated, and heterosexual men may show a similar pattern for both, further examinations of the differential predictions for gay men and lesbian attitudes by using a between-subjects design or by using separated measures are needed.

Our discussion of the present findings focuses on their relevance for research examining the link between essentialist beliefs and intergroup differentiation, stereotype endorsement, prejudice and discrimination (e.g., Allport, 1954; Bastian & Haslam, 2006; Bègue & Apostolidis, 2001; Karafantis & Levy, 2004; Keller, 2005; Levy & Dweck, 1999; Martin & Parker, 1995; Yzerbyt, Rocher, & Schadron, 1997). According to this literature, sexual prejudice is more strongly predicted by beliefs in a fixed normal order, as determined by biology, psychology or religious design (i.e., essentialist beliefs), than by beliefs in a malleable, modifiable, dynamic and changeable reality (i.e., incrementalist beliefs). However, it is worth clarifying the differences within essentialist beliefs (Haslam & Levy, 2006; Haslam, Rothschild, & Ernst, 2002; Hegarty & Pratto, 2001; Hegarty, 2002). Believing that heterosexuals and homosexuals are binary categories with clear boundaries and defining characteristics (i.e., entitativist beliefs) is associated with negative attitudes, whereas beliefs about sexual orientation immutability (biologically based, fixed early in life, and difficult to change) are associated with positive attitudes toward homosexuals (see also Aguero et al., 1984; Ennulf et al., 1989; Tygart, 2000; Whitley, 1990). Whereas this positive link is often explained as a function of the lack of control people have over their behavior (Weiner, 1995) or the social construction of these beliefs as in favor of homosexuals (Hegarty, 2002; Landén & Innala, 2002), the present findings rather suggest that that essentialist beliefs may fulfill heterosexual men's needs related to gender identity.

Accordingly, the present research may also contribute to our understanding of the functions of attitudes (Katz, 1960; see also Herek, 1986b, 1987). On the one hand, past research has suggested that while heterosexual women's attitudes might serve valueexpressive and experiential-schematic functions, and avoid ideological concerns such as religious beliefs, family- and gender-ideology, heterosexual men's attitudes toward homosexuality might serve defensive or social expressive functions related to gender identity needs (Herek, 1988, p. 472). On the other hand, Haslam and Levy (2006) found that male participants believed male homosexuality to be more discrete and mutable than did female participants, and this sex difference in essentialist beliefs is mediated by the effect of sex differences on sexual prejudice (Haslam & Levy, 2006). These findings suggest that essentialist beliefs such as perceived biological differences may serve a defensive function (i.e., a boundary reinforcement function) thereby sharpening a distinction so as to safeguard the person's identity. Indeed, ascribing a categorically distinct ontological status to the devalued other may be a particularly reassuring way to ensure that one does not have the "wrong essence" (Haslam & Levy, 2006, p. 483). On the basis of these considerations, our findings, and more specifically those of Study 5, suggest that heterosexual men's sexual prejudice may serve a defensive function through satisfaction of the intergroup differentiation needs of heterosexual men.

It is also worth noting that different consequences of essentialism may be considered as a function of psycho-social and contextual factors (e.g., Hegarty, 2002; Verkuyten, 2003; see also Halley, 1994), and the results of the present research suggest that essentialist beliefs may relate to sexual prejudice in different ways. Heterosexual men may perceive gay men as dissimilar and establish clear and sharp boundaries preventing sexual orientation confusion in order to protect their gender identity (Studies 3 & 4). However, they can also perceive gay men as more similar in psychological and socio-relational terms once they believe gay men are essentially (i.e., biologically) different in a kind of compensatory/balance mechanism. In some sense, biological differences seem to guarantee the distance needed to reduce identity threat, and then allow heterosexual men to re-approach gay men and hold more positive attitudes. However, the link between gender self-esteem and sexual prejudice was observed in male participants, but not in female participants, and further research is needed to examine the processes underlying the effect of essentialist beliefs on heterosexual women's sexual prejudice.

By way of conclusion, we would like to highlight that considering sexual prejudice as a necessary consequence of masculinity in contemporary society, and homosexuality as the antithesis of what a real mean should be, additionally means that manhood is equated with power (e.g., Hanmer, 1990; Hearn, 2004; Kimmel, 1997; Plummer, 2005). On the one hand, men benefit from a higher social status (i.e. value, power, and privilege) in our society, and supporting the belief system associated with gender identity allows them to preserve these prerogatives (Bardwick, 1971; Connell, 1995; Lorenzi-Cioldi, 1998; Sidanius & Pratto, 1999; Stockard & Johnson, 1979). On the other hand, competition between men is also inherent to the cultural meaning of masculinity: men need to show they are stronger and more successful than their peers (e.g., Kimmel, 1997; Pleck, 1981). As a consequence, the present findings also suggest that essentialist beliefs may be the consequence of ideological motives at work in order to justify and legitimize men's social dominance and power (see Keller, 2005; Sidanius & Pratto, 1999; Yzerbyt et al., 1997). Accordingly, future research would be welcome that examined the link between men's gender self-esteem and sexual prejudice in terms of power relations.

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Figure captions

- Figure 1. Positive attitude toward homosexuality (predicted values) as a function of gender self-esteem (+/- 1SD) and participants' sex
- Figure 2. Heterosexual men's positive attitude toward homosexuality (predicted values) as a function of gender self-esteem and perceived distance from homosexual men (+/-1SD)
- Figure 3. Men's positive attitude toward homosexuality (predicted values) as a function of gender self-esteem (+/-1SD) and induced biological differences between homosexuals and heterosexuals













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