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# The side effect of egalitarian norms: Reactive group distinctiveness, biological essentialism, and sexual prejudice

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Juan Manuel Falomir-Pichastor,<sup>1</sup> Gabriel Mugny,<sup>1</sup> and Jacques Berent<sup>1</sup>

## Abstract

In the context of sexual prejudice, in which group distinctiveness motivation is particularly strong for men, three studies tested the hypothesis that egalitarian norms can intensify reactive distinctiveness motives, and then paradoxically increase intergroup differentiation and prejudice. Depending on the studies, the egalitarian norm was experimentally manipulated or induced and kept constant. Group distinctiveness was manipulated through scientific support for the theory that a person's sexual orientation is determined by biological factors in terms of the extant biological differences (high distinctiveness) versus biological similarities (low distinctiveness) between heterosexual and gay people. Egalitarian norms increased men's (but not women's) intergroup differentiation (Study 1) and prejudice (Study 2) when group distinctiveness was low (as compared to high). This pattern was specific to men with high gender self-esteem, and appeared when the biological theory was framed in terms of intergroup differences rather than the uncontrollability of sexual orientation (Study 3).

## Keywords

biological essentialism, group distinctiveness, intergroup differentiation, sexual prejudice, social influence

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Conformity to social norms is traditionally viewed as one of the most important sources of prejudice (e.g., Allport, 1954; Sherif & Sherif, 1953), and a substantial body of research confirms that people display overall less prejudice in egalitarian normative contexts (e.g., Crandall, Eshleman, & O'Brien, 2002). However, despite the comprehensive literature on conformity to egalitarian norms, we still know little about their side effects. The aim of the present research was

to investigate whether egalitarian norms might clash with people's existing motivation to maintain group distinctiveness, and paradoxically

<sup>1</sup>University of Geneva, Switzerland

## Corresponding author:

Juan M. Falomir-Pichastor, Social Psychology (FPSE),  
University of Geneva, 40 bd. du Pont d'Arve, CH-1205  
Geneva, Switzerland.

Email: Juan.Falomir@unige.ch

result in increased intergroup differentiation and prejudice (i.e., reactive distinctiveness). We tested this contention with respect to attitudes towards gay people, a domain in which motivation to maintain group distinctiveness appears to be particularly strong for men.

## Reactive Distinctiveness and Egalitarian Norms

Ingroup distinctiveness is defined as “the perceived difference or dissimilarity between one’s own group and another group on a relevant dimension of comparison” (Jetten & Spears, 2003, p. 205). Intergroup distinctions accomplish an essential identity function, and group members are often motivated to maintain and enhance ingroup distinctiveness (Tajfel & Turner, 1986). Accordingly, reduced intergroup differences can pose a threat to ingroup distinctiveness, which in turn might result in motivated intergroup differentiation via a *reactive distinctiveness* process when perceived intergroup similarity is high (Tajfel & Turner, 1986). Put differently, people can react to threats to ingroup distinctiveness by strengthening intergroup differentiation in different ways such as emphasizing groups’ essential and distinctive characteristics, or increasing intergroup discrimination and prejudice. Yet, the circumstances under which such a phenomenon occurs might depend on the dispositional and contextual factors that influence the likelihood that an individual will feel distinctiveness threat. For instance, reactive distinctiveness is a particularly prevalent response to perceived intergroup similarity among individuals with a greater propensity to feel distinctiveness threat, such as those who derive their self-esteem from their group membership (e.g., highly identified group members; Plante et al., 2015; Wohl, Giguère, Branscombe, & McVicar, 2011), and when the outgroup is perceived as a relevant comparison group in a particular intergroup context (Jetten & Spears, 2003; Tajfel & Turner, 1986).

In the present research, we posit that egalitarian norms may have the side effect of intensifying reactive distinctiveness processes, thereby reducing

their influence on prejudice, precisely because they may threaten group distinctiveness. Indeed, egalitarian norms convey the idea that all humans are inherently equal, that everybody should be treated equally (independent of group membership), and that prejudice and discrimination are socially unacceptable. They also suggest that society supports antidiscrimination policies, which proscribe differential treatment of individuals as a function of their group membership. Accordingly, egalitarianism and egalitarian norms are intrinsically associated with assimilationist and color-blind ideologies promoting equality of individuals on the basis of a shared humanity (i.e., blind to group differences), rather than to a multicultural ideology that not only promotes equality but also recognizes and celebrates group differences (e.g., Sasaki & Vorauer, 2013; Streiff-Fénart, 2012).

Of course, antidiscrimination policies intend to reduce intergroup discrimination, and conformity to egalitarian norms results in reduced prejudice and discrimination (e.g., Crandall et al., 2002). However, when ingroup distinctiveness is threatened, egalitarian norms are in conflict with extant group distinctiveness motives, and people might not conform to these norms as they increase (rather than alleviate) distinctiveness threat. Consistent with this contention, past research suggests that people do not always conform to egalitarian norms (and sometimes even show counterconformity) when these norms are in conflict with personal values (e.g., Hornsey, Majkut, Terry, & McKimmie, 2003) or with ingroup-related motives (e.g., Falomir-Pichastor, Chatard, Selimbegovic, Konan, & Mugny, 2013; Falomir-Pichastor, Gabarrot, & Mugny, 2009). Accordingly, when distinctiveness threat is high, we posit that egalitarian norms might exacerbate ingroup distinctiveness motives and paradoxically increase intergroup differentiation and prejudice. Conversely, when distinctiveness threat is low, egalitarian norms are not in conflict with extant group distinctiveness motives, and people should more easily conform to these norms.

Different bodies of research in intergroup relations provide indirect support to this postulate. For example, de-emphasizing intergroup

categorization often reduces prejudice (e.g., Brewer, 1999; Gaertner & Dovidio, 2000), but it sometimes paradoxically increases prejudice because of the inherent loss of ingroup distinctiveness (e.g., Crisp, Turner, & Hewstone, 2010; Hewstone, Rubin, & Willis, 2002; Hornsey & Hogg, 2000). Similarly, ideologies and social policies de-emphasizing intergroup categorization (such as color-blindness) are often related to more stereotyping and prejudice compared with ideologies and social policies that celebrate cultural diversity and intergroup distinctions (such as multiculturalism; e.g., Sasaki & Vorauer, 2013; Wolsko, Park, Judd, & Wittenbrink, 2000). Research has also shown that ingroup members with moderately negative outgroup attitudes reactively polarize their attitudes after being led to treat both the ingroup and the outgroup in an equal way (Sanchez-Mazas, Roux, & Mugny, 1994). Finally, egalitarian norms can lead to increased prejudice and discrimination when ingroup members, and in particular those highly identified with their group, perceive that they are sharing relevant personality traits with outgroup members (Gabarrot, Falomir-Pichastor, & Mugny, 2009).

Thus, past research suggests that reactive intergroup differentiation can stem from threats to ingroup distinctiveness, and that this pattern might depend on dispositional and contextual factors that influence the likelihood that an individual will feel distinctiveness threat. Notably, when distinctiveness threat is high (e.g., when perceived intergroup similarity is high), egalitarian norms can be in conflict with individuals' motivation to restore group distinctiveness, which can result in nonconformity or even counterconformity. Accordingly, the present research tested the main hypothesis that egalitarian norms can amplify reactive intergroup differentiation when ingroup distinctiveness is threatened. We examined this hypothesis with respect to group distinctiveness at the biological level, and in the specific context of negative attitudes toward gay people (i.e., sexual prejudice; Herek, 2004), in which distinctiveness motivation is particularly strong for men.

## **Sexual Prejudice and Biological Essentialism**

Research has consistently shown that sexual prejudice is much stronger among heterosexual men than heterosexual women, and that prejudice is especially strong against gay men (e.g., Whitley, 2002). These gender differences are often attributed to the cultural meaning of masculinity implying antifemininity and heterosexuality, which stems from traditional gender role socialization (e.g., Bem, 1993; Herek, 1986). Indeed, both conformity to gender norms and rejection of those who violate these norms contribute to the strengthening of traditional gender roles, which might help men either to reaffirm an uncertain and precarious manhood requiring sustained social proof (Vandello & Bosson, 2013) or to maintain their position of dominance in the social hierarchy (Connell, 1995; Herek, 1986; Sidanius & Pratto, 1999). Accordingly, heterosexual men are motivated to differentiate from heterosexual women and gay men in order to maintain a positive and distinct gender identity, whereas a similar pattern is less likely to be observed for heterosexual women regarding heterosexual men and lesbians.

A substantial body of research supports this assumption. For instance, as compared to women, men endorse more dichotomized gender identities (Bosson & Michniewicz, 2013) and conform more to traditional gender roles (e.g., Gal & Wilkie, 2010). Men also feel more discomfort than women in response to gender role violations, and are more concerned about being misclassified as gay (e.g., Bosson, Prewitt-Freilino, & Taylor, 2005). Sexual prejudice is more strongly related to men's gender self-esteem than women's gender self-esteem (Falomir-Pichastor & Mugny, 2009), and threats to men's masculinity often result in negative reactions to gay men (e.g., Glick, Gangl, Gibb, Klumpner, & Weinberg, 2007; Parrott, 2009; Talley & Bettencourt, 2008).

Past research also suggests that endorsing essentialist beliefs can fulfill men's motivation to maintain a positive and distinct gender identity.

Indeed, people strategically attribute intergroup differences to stable, immutable and inherent causes for psychological and political reasons (e.g., Falomir-Pichastor & Hegarty, 2014; Morton, Postmes, Haslam, & Hornsey, 2009; Stoler, 1997; Verkuyten, 2003). Accordingly, sexist men endorse the biological explanation of gender differences to a greater extent when the traditional gender hierarchy is threatened (Morton et al., 2009). Endorsement of the biological theory of sexual orientation (which posits that sexual orientation is biologically determined) also helps men to maintain group distinctiveness by differentiating heterosexual and gay men (Falomir-Pichastor & Hegarty, 2014). Of particular relevance for the present research, this pattern specifically appears when those men who derive their self-esteem from their gender membership are primed with an egalitarian social norm. Indeed, whereas egalitarian norms increased men's endorsement of biological essentialist beliefs, this pattern was not observed for discriminatory or multiculturalist norms, which both fulfill group distinctiveness needs by highlighting intergroup differences.

## The Present Research

In this research, we aimed to provide further empirical support for the hypothesis that egalitarian norms can exacerbate reactive distinctiveness tendencies. We tested this hypothesis by operationalizing extant distinctiveness motives both as a dispositional factor (i.e., by studying gender differences) and as a contextual factor (i.e., by manipulating the existing scientific support for the biological intergroup differences versus similarities). Indeed, past research showed that heterosexual men's sexual prejudice was higher when science supported biological similarities between heterosexual and gay men (i.e., when group distinctiveness was threatened) than when science supported the existence of biological differences between these groups (i.e., when group distinctiveness was fostered; Falomir-Pichastor & Mugny, 2009, Study 5). Therefore, reactive distinctiveness can be activated when science supports biological intergroup similarities, and we

posit that egalitarian norms can exacerbate (rather than alleviate) this effect.

We tested this hypothesis via three studies with respect to sexual orientation and sexual prejudice, in which we assume reactive distinctiveness processes are particularly strong for men. We operationalized group distinctiveness in terms of perceived biological similarities versus differences between heterosexual and gay people. The egalitarian norm was experimentally manipulated (Studies 1 and 2), or kept constant (Study 3). Across the three studies, we experimentally manipulated perceived group distinctiveness through the extent of scientific support for the biological theory of sexual orientation. In all studies, we tested for participant gender effects and, in Study 3, we additionally assessed participants' gender-related self-esteem in order to show that the predicted pattern of findings is specific to those men who derive self-esteem from their gender membership. The main dependent variables were intergroup differentiation (Study 1) and sexual prejudice (Studies 2 and 3). We predicted that egalitarian norms increase intergroup differentiation (Study 1) and prejudice (Study 2) when group distinctiveness is threatened, as compared to when group distinctiveness is fostered, and that this pattern should be specific to heterosexual men, but not to heterosexual women (Studies 1–3). We also expected this pattern of findings to be specific to heterosexual men with high gender self-esteem (i.e., those with greater propensity to feel distinctiveness threat; Study 3).

## Study 1

In this study, we experimentally manipulated the strength of the egalitarian norm (weak vs. strong) and the biological theory of sexual orientation (i.e., science ostensibly supported the existence of biological similarities [vs. differences] between heterosexual and gay persons), before measuring essentialist beliefs in terms of perceived psychological intergroup differences (i.e., intergroup differentiation). We predicted a three-way interaction effect. In the strong egalitarian norm condition (as compared to the weak egalitarian norm

condition), men's intergroup differentiation should increase when group distinctiveness is threatened (i.e., in the biologically similar condition) as compared to when group distinctiveness is fostered (i.e., in the biologically different condition). Further, this pattern should not appear for women.

### Method

*Participants and procedure.* Because we expected to remove gay participants from the data, we decided to overrecruit in order to have a final sample of about 30–40 participants per condition. Therefore we advertised for 148 female and 148 male U.S. citizens to participate in an anonymous study of public opinion about homosexuality through the Amazon Mechanical Turk (MTurk). They were randomly assigned to one of the four conditions of a 2 (equality norm: weak vs. strong) x 2 (biological theory: differences vs. similarities) between-participants design. Seventy-one participants were excluded because they were not considered to be heterosexual (see Materials: Sexual orientation section). Analyses were performed on the responses given by the remaining 101 women and 124 men with a mean age of 39.10 years ( $SD = 13.84$ ; 41 identified as students). At the end of the study, participants were thoroughly debriefed and thanked. Specifically, they were informed about the goal and methods of the study, and they were sensitized to the difficulty of accepting any simple model that posits clearly identified environmental or biological causes of sexual orientation.

### Materials.<sup>1</sup>

*Egalitarian norm.* Participants were initially presented with a two-paragraph text about social diversity ostensibly published in a newspaper and summarized for this study. The first paragraph highlighted the existent tensions and conflicts between groups in society. The second paragraph described social equality and nondiscrimination as a fundamental principle for a society to function adequately, using the conflict between heterosexual and gay people as an example. The text

ended by stating “*In sum, we are all equal, and all groups should be equally treated.*” The strength of the egalitarian social norm was manipulated by providing participants the results of a survey allegedly conducted on a representative sample of the American population indicating that either a majority (90%; strong egalitarian norm) or a minority (10%; weak egalitarian norm) of people surveyed supported the egalitarian principle outlined in the article summary.

*Biological theory of sexual orientation.* The biological theory was manipulated as in Falomir-Pichastor and Mugny (2009, Study 5). The material was gender-specific, and women and men received information pertaining to their own gender. Participants read a text that summarized scientific evidence comparing heterosexual and gay men (or heterosexual women and lesbians, as a function of participant's gender) with respect to their genes, their mother's androgen rate during pregnancy, and their physiological make-up (i.e., the weight of the part of the hypothalamus responsible for sexual orientation). In the *biologically different condition*, the results of these studies highlighted the existence of biological differences between heterosexual and gay men (or heterosexual women and lesbians), thereby suggesting that sexual orientation is determined biologically. In the *biologically similar condition*, the results emphasized that heterosexual and gay men (or heterosexual women and lesbians) are biologically similar, indicating the lack of scientific evidence for biological determinism of sexual orientation.

*Manipulation checks.* Two items assessed the perceived strength of the egalitarian norm. Participants were asked to indicate the extent to which they believed that “The majority of society supports nondiscrimination against gay men and lesbians” and “The majority of society supports the introduction of laws in order to ensure that equality and nondiscrimination between heterosexuals and gay people is respected” (the response scales ranged from 1 = *not at all* to 7 = *absolutely*). We averaged the two items,  $r = .73$ ,  $p < .001$  ( $M = 4.49$ ,  $SD = 1.51$ ). We tested the manipulation of

the biological theory through a single item: "Sexual orientation is biologically determined" (1 = *not at all* and 7 = *absolutely*;  $M = 4.17$ ,  $SD = 2.11$ ).

*Intergroup differentiation.* We measured motivation for intergroup differentiation through five items assessing essentialist beliefs regarding psychological differences between heterosexual and gay people in general: "Gay people and heterosexuals are psychologically different," "I can easily identify gay people by their way of being and behaving," "Gay people and heterosexuals are essentially different," "Gay people and heterosexuals have different emotional characteristics," and "Gay people and heterosexuals have different personality traits." Items were rated on scales ranging from 1 (*strongly disagree*) to 7 (*strongly agree*). Scores for these items were averaged to form a reliable measure of intergroup differentiation (higher scores indicate greater differentiation;  $\alpha = .81$ ;  $M = 3.67$ ,  $SD = 1.29$ ).

*Sexual orientation.* At the end of the study, participants responded to several demographic items including three questions about their sexual orientation: they defined themselves as "heterosexual," "bisexual," or "homosexual," indicated previous sexual relations with a person of the same sex ("yes" vs. "no"), and indicated whether they felt attracted to people of the same sex (on a scale ranging from 1 = *never* to 7 = *frequently*). Participants were categorized as heterosexual and retained for the analyses if they defined themselves as heterosexual, reported not having had sexual relationships with a same-sex person, and scored below the midpoint of the attraction item scale (4) (see Falomir-Pichastor & Mugny, 2009).

## Results

Dependent variables were analyzed using a 2 (participant gender: women, men)  $\times$  2 (egalitarian norm: weak, strong)  $\times$  2 (biological theory: biologically different, biologically similar) ANOVA.

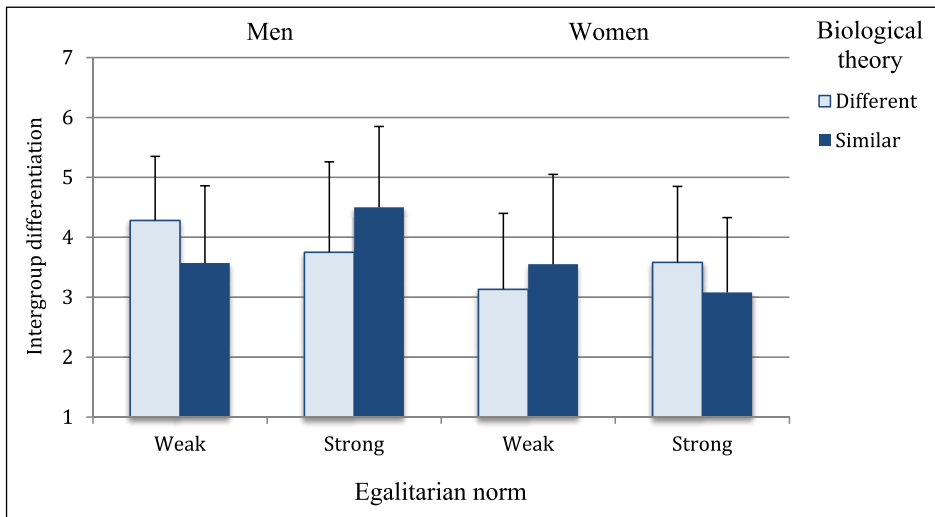
*Manipulation checks.* Regarding the perception of the norm, results revealed a main effect of the

norm manipulation,  $F(1, 217) = 23.68$ ,  $p < .001$ ,  $\eta_p^2 = .09$ . The egalitarian norm was perceived as stronger in the strong norm condition ( $M = 4.95$ ,  $SD = 1.33$ ) than in the weak norm condition ( $M = 3.96$ ,  $SD = 1.54$ ). No other effects emerged ( $F_s < 1.16$ ,  $p_s > .28$ ). Regarding the endorsement of the biological theory, results revealed a main effect of the biological theory induction,  $F(1, 217) = 11.33$ ,  $p = .001$ ,  $\eta_p^2 = .05$ . Participants endorsed more strongly that sexual orientation is biologically determined in the biologically different condition ( $M = 4.68$ ,  $SD = 2.02$ ) than in the biologically similar condition ( $M = 3.69$ ,  $SD = 2.08$ ). No other main or interaction effects approached significance,  $F_s < 0.97$ ,  $p_s > .32$ .

*Intergroup differentiation.* The ANOVA first revealed a main effect of participant gender,  $F(1, 217) = 14.07$ ,  $p < .001$ ,  $\eta_p^2 = .06$ . Heterosexual men differentiated more between heterosexual and gay people than did heterosexual women ( $M = 3.94$ ,  $SD = 1.39$ , and  $M = 3.34$ ,  $SD = 1.33$ , respectively). Moreover, the predicted three-way interaction was significant,  $F(1, 217) = 10.36$ ,  $p = .001$ ,  $\eta_p^2 = .04$  (see Figure 1). As expected, no significant effects were observed for women,  $F_s < 2.86$ ,  $p_s > .09$ . For men, the interaction between the egalitarian norm and the biological theory was significant,  $F(1, 217) = 8.14$ ,  $p = .004$ ,  $\eta_p^2 = .03$ . When the egalitarian norm was strong, as predicted, intergroup differentiation was greater in the biologically similar condition than in the biologically different condition,  $t(217) = 2.25$ ,  $p = .025$ ,  $\eta_p^2 = .02$ . Moreover, the reverse tended to appear when the egalitarian norm was weak,  $t(217) = 1.88$ ,  $p = .061$ ,  $\eta_p^2 = .01$ . Finally, the strong egalitarian norm increased intergroup differentiation in the biologically similar condition,  $t(217) = 2.76$ ,  $p = .006$ ,  $\eta_p^2 = .03$ , but not in the biologically different condition,  $t(217) = 1.41$ ,  $p = .15$ .

## Discussion

These findings provide the first empirical evidence for our main hypothesis. In the strong egalitarian norm condition, men's perception of psychological differences between heterosexual and gay



**Figure 1.** Intergroup differentiation between heterosexual and gay people as a function of social norm condition, biological theory condition, and participant gender (bars represent standard deviations; Study 1).

people were greater when group distinctiveness was low (i.e., when science was thought to support the existence of biological similarities between heterosexual and gay men) than when group distinctiveness was high (i.e., when science was thought to support the idea that heterosexual and gay men are biologically different). This pattern was not observed among female participants.

However, three limitations of the present study need to be mentioned. First, we don't know whether the predicted and observed reactive distinctiveness also extends to sexual prejudice. Second, results also showed that when the egalitarian norm was weak, more intergroup differentiation tended to appear in the biologically different condition than in the biologically similar condition. This finding could illustrate either the influence of the biological differences information on related psychological differences specifically when the egalitarian norm is weak, or conformity to a discrimination norm (which is implicit in the weak egalitarian norm condition) when perceived biological differences are high. Finally, because we compared a strong egalitarian norm to a weak egalitarian norm, we cannot definitely conclude from the observed findings whether they are specific to egalitarian norms or

generalizable to other norms favorable to social minorities. Accordingly, in the next study, we aimed at providing more cogent evidence in support of our main hypothesis by comparing an egalitarian norm to another norm that is also in favor of social minorities whilst emphasizing intergroup differences (i.e., a multiculturalist norm).

## Study 2

In this study, we introduced two main changes as compared to Study 1: we used attitudes towards gay people as the main dependent variable and compared the effects associated with egalitarian versus multiculturalist norms. On the one hand, egalitarian and multiculturalist norms are equally favorable to social minorities, and conformity to both norms should result in reduced prejudice regardless of the norm condition. On the other hand, however, egalitarian norms de-emphasize intergroup differences, whereas multiculturalist norms bring attention to attributes of groups that make them positively different. If our main hypothesis is correct, only the egalitarian norm should intensify the threat to men's group distinctiveness, due to the fact that the multiculturalist norm emphasizes and celebrates

each group's distinctive attributes (see Falomir-Pichastor & Hegarty, 2014).

Therefore, we predicted a Participant Gender (women vs. men) x Social Norm (egalitarian vs. multiculturalist) x Biological Theory (difference vs. similarity) three-way interaction effect on attitudes towards gay people. In the egalitarian norm condition, men's attitudes should be more negative when group distinctiveness is low than when group distinctiveness is high. In the multiculturalist norm condition, we did not expect the biological theory of sexual orientation to have an effect. Again, this pattern was not expected among women.

### Method

*Participants and procedure.* Participants were recruited on university campuses and in other public places in two Swiss cities. They were asked to volunteer in two anonymous and allegedly independent studies without any compensation in exchange of their participation. The first study was described as concerning intergroup relations in society and included the norm induction. The second study was presented as concerning public opinion about sexual orientation, and included the biological theory induction and the main dependent measures. Participants were randomly assigned to one of the four conditions of a 2 (social norm: egalitarian, multiculturalist) x 2 (biological theory: different, similar) experimental design. We initially recruited 324 participants (159 men, 165 women) to obtain a final sample of 30–40 participants per condition, as in the previous study. After exclusion of those participants who were not considered heterosexual (see Study 1), the final sample consisted of 145 men and 151 women with a mean age of 35.52 years ( $SD = 12.30$ ; 89 identified as students).

### Materials

*Social norm.* The social norm was manipulated using the two texts drawn up by Falomir-Pichastor and Hegarty (2014; see also Wolsko et al., 2000), which discuss social groups in general (with no mention of sexual minorities or sexual prejudice), and stress the importance of either

the egalitarian or the multicultural ideology in solving conflictual intergroup relations. In order to reinforce the perceived normativity of the ideology in question, participants were told that, in a survey of a representative sample of the country's population, more than 90% of respondents agreed with the content of the text and strongly supported it.

In detail, the beginning of both texts stressed that Western societies should reinforce measures for preventing and managing tensions related to social diversity. Depending on the experimental condition, this was followed by a paragraph (about 230 words) suggesting that equality and nondiscrimination between groups (egalitarian norm condition), or valuing each group's characteristics (multiculturalist norm condition), was the key to a harmonious society. For example, the text used in the *egalitarian norm* condition was almost similar to the one used in Study 1 and stated:

Equality between groups, and in particular not discriminating against minority groups, is fundamental to ensure that society functions harmoniously [...] Equality means treating minorities in the same way as the majority, while respecting their rights, that is, nobody should be discriminated against because he/she belongs to a given social group [...] In short, intergroup relations are improved by treating groups equally, and this leads to a better and more harmonious society.

In contrast, the text used in the *multiculturalist norm* condition stated:

Valuing differences between groups is fundamental to ensure that society functions harmoniously [...] Valuing differences between social groups means acknowledging that there are different ways of thinking or behaving, that minority groups may have different values, and prizing these distinctive qualities [...] In short, intergroup relations are improved by highlighting and celebrating group differences, and this leads to a better and more harmonious society.

We conducted a pilot study to ensure that this material worked as intended. Participants were 77 university students (42 women, 35 men) with a mean age of 26.32 years ( $SD = 7.48$ ) who were recruited from a university campus. We asked them to read a single page of text, allegedly published in a local newspaper, and to answer questions about its content. After reading the text, participants had to indicate (1 = *not at all* to 7 = *absolutely*) whether the majority of the population supported two statements concerning the egalitarian norm ("It is important for all social groups to have equal rights" and "Laws are needed to enforce equal rights and nondiscrimination";  $r = .28, p = .01, M = 4.69, SD = 1.46$ ), and two statements concerning the multiculturalist norm ("It is important to respect the different characteristics and qualities of each social group" and "Laws are needed to highlight the different qualities of each social group";  $r = .44, p < .001, M = 4.25, SD = 1.59$ ). The two scores were slightly correlated,  $r = .24, p = .03$ , which is unsurprising given that both norms are promiscuity and were introduced as favoring social harmony.

We performed a 2 (perceived social norm: egalitarian, multiculturalist)  $\times$  2 (manipulated social norm: egalitarian, multiculturalist)  $\times$  2 (participant gender: women, men) mixed ANOVA with repeated measures on the first factor. Overall, egalitarianism was perceived to be more normative than multiculturalism,  $F(1, 73) = 5.06, p = .027, \eta^2_p = .06$ , but this effect was moderated by the norm induction,  $F(1, 73) = 19.59, p < .001, \eta^2_p = .21$ . Egalitarianism was perceived to be more normative in the egalitarian norm condition ( $M = 5.11, SD = 1.19$ ) than in the multiculturalist norm condition ( $M = 4.28, SD = 1.59$ ),  $F(1, 73) = 5.68, p = .02, \eta^2_p = .07$ , and multiculturalism was perceived to be more normative in the multiculturalist norm condition ( $M = 4.70, SD = 1.30$ ) than in the egalitarian norm condition ( $M = 3.78, SD = 1.73$ ),  $F(1, 73) = 7.00, p = .01, \eta^2_p = .08$ . The effect of participants' gender,  $F(1, 73) = 1.27, p = .26$ , and all interactions including the participants' gender,  $F_s(1, 73) < 0.16, p_s > .68$ , were not significant. These findings showed that the experimental material was an effective way of

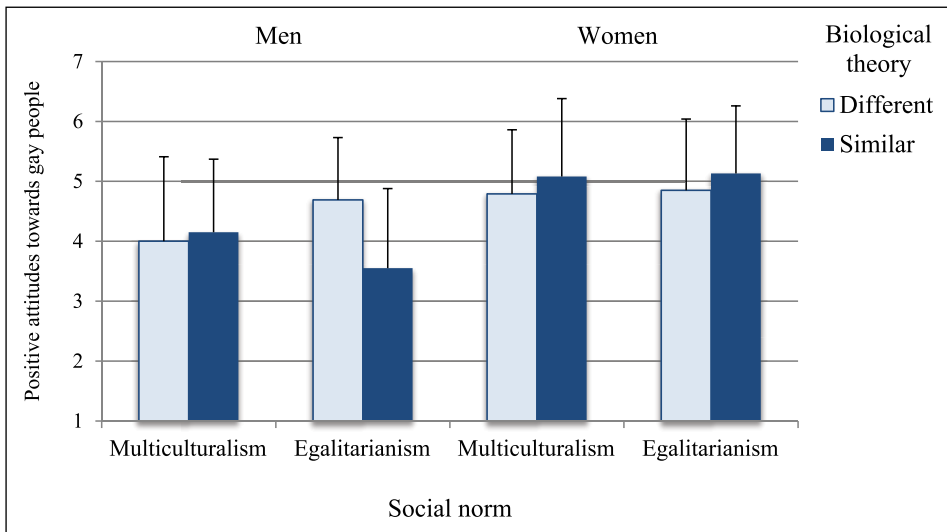
manipulating the relative importance of these two social norms for both men and women.

*Biological theory of sexual orientation.* For male participants, the biological theory manipulation used was the same as in Study 1 (i.e., a comparison between heterosexual and gay men). For female participants, this manipulation was either a comparison between heterosexual and gay men (i.e., the same used for male participants) or a comparison between heterosexual women and lesbians (i.e., matching their own gender, as in Study 1).<sup>2</sup> The manipulation check ( $M = 3.33, SD = 2.11$ ) was similar to that used in Study 1.

*Positive attitudes towards homosexuality.* Attitudes towards homosexuality were assessed using an adapted 16-item version of the 25-item attitude scale used by Falomir-Pichastor and Mugny (2009). As for the induction of the biological theory, the attitude scale varied as a function of participant gender (see Endnote 2). All male participants answered sex-specific items regarding gay men and gay male sexual orientation. Sample items included "Gay male sexual orientation goes against family values," "I feel empathy towards gay men," "Gay male couples should have the right to adopt children," or "I would not mind sharing an apartment with a gay man" (1 = *not at all* and 7 = *absolutely*). Female participants answered either the same items as for male participants, or sex-specific items (e.g., "Lesbian sexual orientation goes against family values"). This scale was strongly reliable for this sample ( $\alpha = .92$ ), and the scores on these items were averaged to form a composite measure of attitude towards homosexuality (higher scores indicate more positive attitudes;  $M = 4.53, SD = 1.31$ ).

## Results

*Manipulation check.* A 2 (social norm: egalitarian, multiculturalist)  $\times$  2 (biological theory: different, similar)  $\times$  2 (participant gender: women, men) ANOVA was conducted on belief in the biological basis of sexual orientation. The biological theory's main effect was significant,  $F(1, 288) = 32.46,$



**Figure 2.** Positive attitudes towards gay people as a function of social norm condition, biological theory condition, and participant gender (bars represent standard deviations; Study 2).

$p < .001$ ,  $\eta_p^2 = .10$ , indicating that participants endorsed the belief that sexual orientation is biologically determined more strongly in the biologically different condition ( $M = 4.00$ ,  $SD = 2.15$ ) than in the biologically similar condition ( $M = 2.65$ ,  $SD = 1.84$ ). No other main or interaction effect was significant,  $F_s < 1.75$ ,  $p_s > .18$ .

*Positive attitudes towards homosexuality.* A similar ANOVA was performed on attitude scores. Participant gender's main effect was significant,  $F(1, 288) = 36.97$ ,  $p < .001$ ,  $\eta_p^2 = .11$ , indicating that women ( $M = 4.96$ ,  $SD = 1.17$ ) held more positive attitudes than men ( $M = 4.09$ ,  $SD = 1.31$ ). The Biological Theory x Social Norm interaction,  $F(1, 288) = 5.32$ ,  $p = .022$ ,  $\eta_p^2 = .01$ , and the Biological Theory x Participant Gender interaction,  $F(1, 288) = 7.43$ ,  $p = .007$ ,  $\eta_p^2 = .02$ , were significant. More importantly, and as predicted, the three-way interaction was also significant,  $F(1, 288) = 5.14$ ,  $p = .024$ ,  $\eta_p^2 = .01$  (see Figure 2).

Among men, the biological theory main effect,  $F(1, 288) = 5.50$ ,  $p = .020$ ,  $\eta_p^2 = .03$ , and the predicted Biological Theory x Social Norm interaction,  $F(1, 288) = 9.62$ ,  $p = .002$ ,  $\eta_p^2 = .06$ , were significant. When egalitarianism was the norm,

men's attitudes were more negative in the biologically similar condition than in the biologically different condition,  $t(288) = 4.05$ ,  $p < .001$ ,  $\eta_p^2 = .05$ . When multiculturalism was the norm, the biological theory had no effect on men's attitudes,  $t(288) = 0.54$ ,  $p = .58$ . Furthermore, in the biologically similar condition, attitudes were more negative in the egalitarian norm condition than in the multiculturalist norm condition,  $t(288) = 2.10$ ,  $p = .036$ ,  $\eta_p^2 = .01$ , whereas the reverse was observed in the biologically different condition,  $t(288) = 2.42$ ,  $p = .016$ ,  $\eta_p^2 = .02$ . Among women, no significant effect of our manipulations was observed,  $F_s < 2.16$ ,  $p_s > .14$ .

### Discussion

This study provided a stronger test of our main hypothesis by experimentally comparing the influence of an egalitarian norm to that of a multiculturalist norm (i.e., another promminority norm, which emphasizes intergroup differences). As expected, the egalitarian norm led to more negative attitudes towards gay people among men when science supported the lack of biological differences between heterosexual and gay men. Also as

expected, the biological theory had no effect on men's attitude towards gay people in the multiculturalist norm condition. Finally, this overall pattern of findings was not observed for women. Accordingly, these findings provide support to our main hypothesis whilst disentangling the potential effects of reactive distinctiveness and conformity to prominority versus antiminority norms.

### Study 3

In a final study, we wanted to address two assumptions of our main hypothesis that have not yet been tested. The first assumption is that group distinctiveness leads to more intergroup differentiation for people with a high dispositional propensity to feel distinctiveness threat, such as high group identifiers (Jetten & Spears, 2003). Accordingly, only men who significantly derive self-esteem from their gender membership should show the predicted pattern of findings. Indeed, past research showed more reactive distinctiveness responses among men with high (vs. low) gender self-esteem (Falomir-Pichastor & Hegarty, 2014; Falomir-Pichastor & Mugny, 2009). Hence, in this study we assessed participants' gender self-esteem in order to show that only men with high gender self-esteem would be sensitive to the biological theory manipulation under egalitarian normative contexts.

The second assumption is that when the egalitarian norm is strong, the positive effect observed in the biologically different condition appears specifically because this theory fulfills men's needs for group distinctiveness (as compared to a condition in which science threatens such distinctiveness needs). However, although the consequences of this theory in terms of intergroup differences are explicitly stated in our experimental induction, we cannot conclusively affirm that participants (only) understand the biological theory in terms of intergroup differences, given that this theory might be construed in an alternative way. Indeed, past research showed that endorsing the theory that sexual orientation is determined by biological factors often correlates with tolerance towards lesbians and gay men, supposedly

because this theory connotes that sexual orientation is not under personal control (e.g., Tygart, 2000; Whitley, 1990; see also Weiner, 1995). Thus, when manipulating the conclusions of the biological theory about sexual orientation, it is not necessarily clear which process is at work (perceived intergroup differences vs. perceived uncontrollability). In order to disentangle these two alternative interpretations of our results, we dissociated here the information about the biological determinism of sexual orientation from the meanings that could be associated with it. Specifically, we framed this theory either in terms of intergroup differences or of individual uncontrollability.

For the sake of simplicity, and because this is the most critical condition regarding heterosexual men's need for intergroup distinctiveness, the egalitarian norm was kept constant. Under such conditions, we predicted an interaction effect of participant gender, gender self-esteem, and biological theory framing on sexual prejudice. According to our main hypothesis, the biological theory should improve men's attitudes towards homosexuality specifically when this theory is framed in terms of group differences (rather than in terms of uncontrollability). This pattern should neither appear among men with low gender self-esteem, nor among women.

### Method

*Participants and procedure.* We built a mailing list of 4,642 students from two Swiss universities and sent an invitation to volunteer in an anonymous online survey of public opinion. In this study, the sample size was determined by how many students from the mailing list agreed to participate in our study. The 177 students who volunteered (without any compensation in exchange of their participation) were randomly assigned to one of the two conditions (biological theory frame: differences, uncontrollability) of a quasi-experimental design. Twenty-eight participants were excluded from analyses because they were not considered to be heterosexual (see the inclusion protocol described in Study 1). Data from the

remaining 77 women and 72 men (age:  $M = 25.23$  years,  $SD = 6.69$ ) were analyzed. The induction of the egalitarian norm was the same as in the previous study and was kept constant for all participants. In this study, all materials were gender-matched: female participants received materials on lesbians and male participants received materials on gay men.

### Materials

*Positive gender self-esteem.* The extent to which participants derived positive self-esteem from their gender membership was assessed using a gender-specific three-item scale. Two items were similar to those used by Falomir-Pichastor and Mugny (2009; "Overall, I have a very high esteem of myself as a [wo]man" and "Overall, I am highly satisfied that I am a [wo]man"), and we introduced a third item that more directly assessed group membership ("Overall, I feel I am a real [wo]man"). We calculated a mean positive gender self-esteem score ( $\alpha = .75$ ;  $M = 5.62$ ,  $SD = 1.07$ ).

*Biological theory frame.* Participants were randomly assigned to one of the two experimental conditions resulting from the way the biological theory was framed (differences vs. uncontrollability). Both conditions were adapted to participant's gender. The bodies of the texts, which were entitled "[Fe]male sexual orientation is biologically determined," were the same as those used in the biologically different condition in the previous studies, and stated that scientific research supported the biological basis of [fe]male sexual orientation. However, the article's subtitle, introduction, and conclusion varied across the experimental conditions.

In the *differences* condition, the theory was framed in terms of intergroup differences via the subtitle ("Lesbians/gay men are biologically different from heterosexual [wo]men"), the introduction sentence ("Research generally concurs that sexual orientation is determined biologically: [fe]male heterosexuals and lesbians/gay men are biologically different"), and the conclusion sentence ("In short, these results show without doubt that lesbian/gay male sexual orientation is

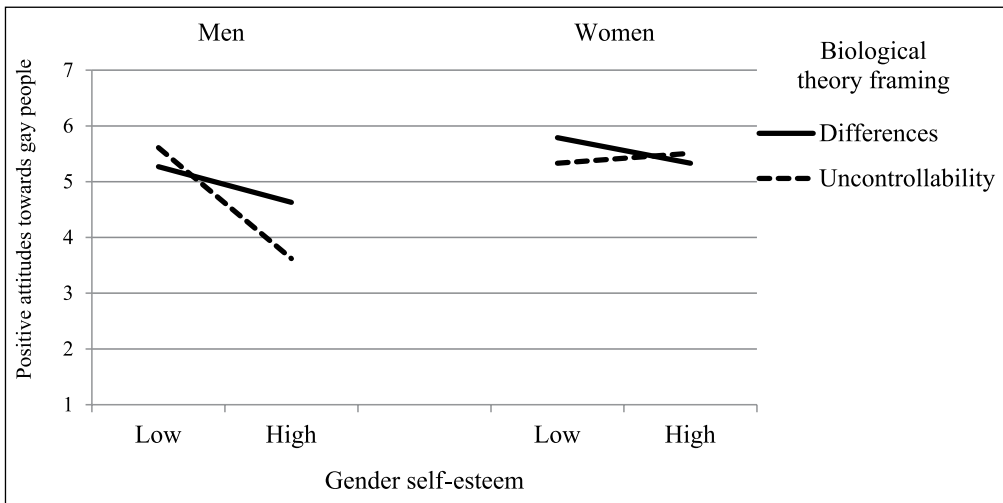
biologically determined, and that lesbians/gay men are biologically different from heterosexual [wo]men"). In the *uncontrollability* condition, the theory was framed in terms of a lack of individual control over sexual orientation via the subtitle ("Lesbians/gay men are not responsible for [do not choose] their sexual orientation"), the introduction sentence ("Research generally concurs that sexual orientation is determined biologically: Lesbian/gay male sexual orientation is not under personal control, nor is it a question of personal experiences or choice"), and the conclusion sentence ("In short, these results show without doubt that lesbian/gay male sexual orientation is biologically determined, and that sexual orientation is not under personal control: Lesbians/gay men do not chose, are not responsible for, and cannot change their sexual orientation").

In order to control the effectiveness of the experimental manipulation, one item assessed perceived intergroup differences: "Heterosexual and lesbians/gay men are essentially different" (1 = *not at all* to 7 = *absolutely*;  $M = 2.35$ ,  $SD = 1.62$ ), and three items assessed participants' perception that sexual orientation is under individual control: "Lesbians/gay men voluntarily decide their sexual orientation," "Lesbians/gay men are responsible for their sexual orientation," and "Lesbians/gay men can change their sexual orientation" (1 = *not at all* to 7 = *absolutely*). Scores for these items were averaged to form a measure of perceived controllability ( $\alpha = .84$ ;  $M = 3.13$ ,  $SD = 1.67$ ).

*Positive attitude towards homosexuality.* The same attitude towards homosexuality scale used in Study 2 was gender-adapted for all participants ( $\alpha = .94$ ;  $M = 5.16$ ,  $SD = 1.36$ ).

### Results

*Manipulation checks.* We performed a 2 (biological theory framing: differences, uncontrollability) x 2 (participant gender: women, men) ANOVA on the perceived differences scores. The main effect of participant gender was significant,  $F(1, 145) = 6.91$ ,  $p = .009$ ,  $\eta^2_p = .04$ , with the men's perception of essential differences between heterosexual



**Figure 3.** Predicted values for positive attitudes towards gay people as a function of participant gender, gender self-esteem ( $\pm 1$  *SD*), and biological theory framing (Study 3).

and gay men ( $M = 2.69$ ,  $SD = 1.75$ ) being greater than the women's perception of the difference between heterosexual and lesbian women ( $M = 2.03$ ,  $SD = 1.42$ ). More importantly, the main effect of biological theory framing was also significant,  $F(1, 145) = 4.19$ ,  $p = .042$ ,  $\eta^2_p = .02$ , indicating a greater perception of intergroup differences in the differences condition ( $M = 2.66$ ,  $SD = 1.85$ ) than in the uncontrollability condition ( $M = 2.11$ ,  $SD = 1.38$ ). The Biological Theory Frame  $\times$  Participant Gender interaction effect was not significant,  $F(1, 145) = 1.42$ ,  $p = .23$ . The same ANOVA did not reveal any significant effect on perception of individual control,  $F_s(1, 145) < 0.42$ ,  $p_s > .51$ .

*Positive attitudes towards homosexuality.* We regressed attitude on participant gender ( $-1 =$  women,  $+1 =$  men), gender self-esteem (standardized scores), and biological theory ( $-1 =$  differences,  $+1 =$  uncontrollability), and all the possible interactions between these three factors,  $R^2 = .21$ ,  $F(7, 141) = 5.49$ ,  $p < .001$ . The main effects of both participant gender,  $t(141) = 3.42$ ,  $p = .001$ ,  $\eta^2_p = .07$ , and gender self-esteem,  $t(141) = 3.51$ ,  $p = .001$ ,  $\eta^2_p = .08$ , were significant. Attitudes were more positive among women ( $M =$

$5.47$ ,  $SD = 1.14$ ) than among men ( $M = 4.84$ ,  $SD = 1.51$ ), and positive attitudes decreased as gender self-esteem increased ( $B = -.36$ ). The interaction between participant gender and gender self-esteem was significant,  $t(141) = 2.85$ ,  $p = .005$ ,  $\eta^2_p = .05$ , as was the predicted three-way interaction,  $t(141) = 2.40$ ,  $p = .018$ ,  $\eta^2_p = .03$  (see Figure 3).

Among men, higher gender self-esteem was related to less positive attitudes towards homosexuality ( $B = -.66$ ),  $t(141) = 4.67$ ,  $p < .001$ ,  $\eta^2_p = .13$ . Furthermore, the predicted Theory Frame  $\times$  Self-Esteem interaction was significant,  $t(141) = 2.38$ ,  $p = .018$ ,  $\eta^2_p = .03$ . Specifically, attitudes were more negative in the uncontrollability condition than in the differences condition for men with higher gender self-esteem ( $+1$  *SD*),  $t(141) = 2.42$ ,  $p = .017$ ,  $\eta^2_p = .04$ , but not for men with lower gender self-esteem ( $-1$  *SD*),  $t(141) = 0.84$ ,  $p = .39$ . Furthermore, higher gender self-esteem was related to more negative attitudes in the uncontrollability condition ( $B = -.99$ ),  $t(141) = 4.98$ ,  $p < .001$ ,  $\eta^2_p = .15$ , but not in the differences condition ( $B = -.32$ ),  $t(141) = 1.61$ ,  $p = .11$ . Among women, the analysis did not reveal any significant effect,  $t_s(141) < 1.05$ ,  $p_s > .29$ .

## Discussion

Results showed that heterosexual men with high gender self-esteem showed more negative attitudes toward homosexuality when the biological theory was framed in terms of uncontrollability than when it was framed in terms of intergroup differences. This pattern was not observed among men with lower gender self-esteem, or among women. These findings provide more cogent empirical evidence to support our general hypothesis. However, the results of the manipulation check showed that the theory-framing manipulation worked as intended regarding perceived intergroup differences, but this was not the case regarding the perceived uncontrollability of sexual orientation: participants perceived a relatively low level of controllability regardless of the experimental induction. Therefore we cannot make clear inferences about the processes related to the perceived uncontrollability of sexual orientation. However, this finding suggests at least that the predicted results regarding the theory-framing manipulation cannot be explained by an understanding of the biological theory in terms of individual uncontrollability.

## General Discussion

This research investigated the side effects of egalitarian norms on intergroup relations. We conducted three studies to test the hypothesis that egalitarian norms can intensify reactive distinctiveness responses when intergroup distinctiveness is low, presumably because these norms are in conflict with extant intergroup differentiation needs. We tested this hypothesis in the domain of sexual prejudice, where heterosexual men have a greater propensity to show reactive distinctiveness in relation to gay men. The results showed that, when the egalitarian norm was strong, men showed more intergroup differentiation and sexual prejudice when group distinctiveness was not highlighted. This pattern was not observed when the normative context already supported intergroup differentiation—that is, when the egalitarian norm was weak or when a multiculturalist norm was activated. The pattern also appeared to

be specific to male participants, and in particular to those with high gender self-esteem.

These findings are consistent with social identity theory and sexual prejudice literatures, but also extend them in several ways. First, whereas past research showed that perceived intergroup similarity fosters reactive distinctiveness processes, the present research reveals that egalitarian norms can also intensify this reactive response (see also Falomir-Pichastor & Hegarty, 2014; Gabarrot et al., 2009). More specifically, our findings suggest that egalitarian norms lead to reactive distinctiveness when the motivation to maintain or restore group distinctiveness is high. These findings additionally suggest that reactive distinctiveness results from the interplay between different factors that operate at different levels, that is, individual motivational differences, perceived intergroup similarity, and societal norms regarding intergroup relations. Therefore, future research should take into account different levels of analysis (Doise, 1986) in order to obtain a comprehensive understanding of these complex processes.

Second, the present findings may seem at odds with past research showing that men's attitudes are more negative toward dissimilar gay targets than toward similar ones (e.g., Glick et al., 2007; Pilkington & Lydon, 1997). These past findings are consistent with both the similarity-attraction principle (Byrne, 1971) and the self-categorization theory (Turner, Hogg, Oakes, Reicher, & Wetherell, 1987), according to which intergroup differentiation reflects existing intergroup differences that people are motivated to preserve or enhance. However, such a *reflective* distinctiveness appears when intergroup similarity is low, whereas the *reactive* distinctiveness investigated in the present research constitutes a reaction to the threatened distinctiveness that is observed when intergroup similarity is high (Jetten & Spears, 2003). Indeed, in Study 1, we observed a pattern of findings consistent with reflective distinctiveness when the egalitarian norm was weak, but consistent with reactive distinctiveness when the egalitarian norm was high. Accordingly, all these findings should together be considered as illustrating complex and alternative processes related

to group distinctiveness, and further research should investigate alternative moderators of the reactive versus reflective distinctiveness processes.

Third, these findings may also be of relevance for literature on sexual prejudice. Men's sexual prejudice is often explained by the need to affirm one's masculinity by conforming to masculinity norms and personally rejecting those who violate traditional gender roles (e.g., Bosson et al., 2005; Falomir-Pichastor & Mugny, 2009; Glick et al., 2007; Herek, 1988; Parrot, 2009; Talley & Bettencourt, 2008). The present findings are consistent with this body of research, but they also extend them by suggesting the relevance of psychologically distancing from deviant gay men at the group level, as operationalized by egalitarian normative contexts and perceived intergroup similarities at the biological level. However, future research should investigate whether egalitarian norms and endorsement of the biological theory not only influence reactive distinctiveness at the group level, but also at the individual level.

Our findings are also consistent with the idea that intergroup ideologies have multiple components and may relate to intergroup attitudes in different ways (e.g., Guimond et al., 2013; Rosenthal, Levy, & Moss, 2011; Verkuyten, 2006). Indeed, egalitarianism, just like other ideologies, can mean different things to different people, or even to the same person in different situations (Knowles, Lowery, Hogan, & Chow, 2009; Levy, West, & Ramirez, 2005). Similarly, people may understand egalitarian norms in different ways. More specifically, the present research provides one plausible explanation to the fact that egalitarian norms often do not influence sexual prejudice (Masser & Phillips, 2003), or do so only when normative pressures are high (Pereira, Monteiro, & Camino, 2009), by suggesting that egalitarian norms can threaten distinctiveness motives for some people in specific circumstances. It is also worth noting that this is specific to egalitarian norms (as compared to multiculturalist norms), but further research should examine whether alternative social norms favoring social minorities (e.g., tolerance norm) influence group distinctiveness processes.

Finally, the present findings are also relevant to research into the particularly complex link between the biological theory of sexual orientation and sexual prejudice. On the one hand, biological explanations, like other essentialist beliefs, can increase intergroup categorization and group entitativity (e.g., Yzerbyt, Rocher, & Schadrin, 1997), naturalize and justify existing intergroup inequalities (e.g., Duster, 2003; Shostak, Freese, Link, & Phelan, 2009), and increase prejudice and stigmatization (e.g., Jayaratne et al., 2006; Keller, 2005; Phelan, 2005; Plaks, Malahy, Sedins, & Shoda, 2012). On the other hand, research has consistently shown that biological explanations of sexual orientation are negatively related to sexual prejudice (e.g., Haslam & Levy, 2006; Whitley, 1990). The most commonly accepted explanation for this negative relation is that biological determinist beliefs inform that sexual orientation is beyond individual's control and responsibility (Weiner, 1995). However, most of the evidence for the effect of uncontrollability beliefs on sexual prejudice is correlational, and experimental manipulations of these beliefs have failed to show the predicted causality effect (e.g., Hegarty & Golden, 2008; Piskur & Degelman, 1992). In addition, these beliefs can also be merely post hoc justifications for existing attitudes and group-related motives (Hegarty, 2002; Morton et al., 2009).

The present research contributes to the debate about the role of biological beliefs in intergroup attitudes by illustrating the defensive function that essentialist explanations in general, and biological beliefs in particular, may accomplish when clear-cut intergroup differences are needed, especially in egalitarian normative contexts. As such, our findings argue against the idea that the effects of essentialist beliefs on intergroup attitudes are simple and straightforward. In contrast, they suggest that the biological theory of sexual orientation can take different meanings and accomplish different functions for different people in different contexts, just as ideologies do (e.g., Haslam & Levy, 2006; Hegarty, 2002; Morton et al., 2009; Shostak et al., 2009; Verkuyten, 2003). Hence, our results point at the

need for further research on the different functions the biological theory may accomplish, on the different factors influencing the way individuals understand such theory, and on the way in which these meanings moderate the influence of social norms on intergroup attitudes.

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### Notes

1. All materials can be obtained from the first author.
2. In order to rule out the possibility that the predicted gender differences are the result of a general motivation to differentiate from gay men, in this study we also manipulated the target group as an additional factor only for female participants. The biological theory induction and the attitude scale focused either on gay men and gay male sexual orientation (i.e., opposing the gender of the female participants) or on lesbians and lesbian sexual orientation (i.e., matching the gender of the female participants). We conducted a 2 (social norm: egalitarian vs. multiculturalist)  $\times$  2 (biological theory: biologically different vs. biologically similar)  $\times$  2 (target: lesbians vs. gay men) full factorial ANOVA on women's attitude scores. This analysis revealed a significant main effect of target,  $F(1, 143) = 23.43, p < .001, \eta_p^2 = .14$ . Attitudes towards gay men were more positive ( $M = 5.27, SD = 0.98$ ) than attitudes towards lesbians ( $M = 4.35, SD = 1.28$ ). However, all the interactions including the target factor were well below conventional levels of significance,  $F_s(1, 143) < 1.42, p_s > .23$ . Accordingly, the predicted and observed pattern of findings is not merely driven by the gender of the gay targets, and the relevance

of the target group cannot explain the lack of significant findings observed for women.

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