

Gender-Bias Primes Elicit Queen-Bee Responses Among Senior Policewomen

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Abstract

Queen bees are senior women in male-dominated organizations who have achieved success by emphasizing how they differ from other women. Although the behavior of queen bees tends to be seen as contributing to gender disparities in career outcomes, we argue that queen-bee behavior is actually a result of the gender bias and social identity threat that produce gender disparities in career outcomes. In the experiment reported here, we asked separate groups of senior policewomen to recall the presence or absence of gender bias during their careers, and we measured queen-bee responses (i.e., masculine self-descriptions, in-group distancing, and denying of discrimination). Such gender-bias priming increased queen-bee responses among policewomen with low gender identification, but policewomen with high gender identification responded with increased motivation to improve opportunities for other women. These results suggest that gender-biased work environments shape women's behavior by stimulating women with low gender identification to dissociate with other women and to display queen-bee responses as a way to achieve individual mobility.

Keywords

intergroup dynamics, employment discrimination, stereotyped attitudes, minority groups

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Although the number of women in the workforce has increased substantially, women's advancement is limited to the lower ranks of the labor market. In the United States, women compose only 15.2% of the corporate boards of *Fortune* 500 companies (Soares, Combopiano, Regis, Shur, & Wong, 2010), and this number is even lower in Europe (12%; European Commission, 2011). Research into the obstacles that women face in their careers has revealed the negative impact of gender stereotypes and sexism (Barreto, Ryan, & Schmitt, 2009).

Placing more women in powerful positions is sometimes offered as the primary solution for improving women's position in the workforce. We propose that placing more women in senior positions without attempting to reduce organizational gender bias is an inadequate solution. Our main hypothesis is that when women with low gender identification consider the sexist treatment they have received, this induces them to compete with other women and turn into "queen bees" who distance themselves from other women and oppose rather than support the advancement of female subordinates.

The *queen-bee phenomenon* refers to the finding that women who have been successful in male-dominated organizations defend the status quo (Kanter, 1977; Staines, Tavis, & Jayaratne, 1974). Several workplace studies have found that,

compared with men, women are less supportive of the advancement of other women (Garcia-Retamero & Lopez-Zafra, 2006; Mathison, 1986), express more gender-biased perceptions of other women's career commitment (Ellemers, Van Den Heuvel, De Gilder, Maass, & Bonvini, 2004), and become less supportive of equal-opportunity programs as they advance in the organization (Ng & Chiu, 2001). Moreover, women who have achieved success in gender-biased contexts may deny the existence of sexism (Stroebe, Ellemers, Barreto, & Mummendey, 2009). Queen bees set themselves apart from other women by emphasizing their masculine characteristics (e.g., dominance, independence) and by stressing that they differ from other women (Derks, Ellemers, Van Laar, & de Groot, 2011; Ellemers et al., 2004; Ely, 1994, 1995; Stroebe et al., 2009). Because gender-stereotypical views expressed by women are less likely to be interpreted as sexist (Baron, Burgess, & Kao, 1991), and because women's denial of existing gender discrimination constitutes a powerful legitimization of

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the status quo, women who turn into queen bees restrict the career opportunities of their female subordinates.

The queen-bee phenomenon has been offered as evidence that women are their own worst enemies and that rivalry among women is an important obstacle in women's careers (Dobson & Iredale, 2006). Consequently, research has investigated individual-level risk factors, such as low self-esteem, dependence on men, and acceptance of traditional gender roles (Cooper, 1997; Cowan, Neighbors, DeLaMoreaux, & Behnke, 1998). Recently, however, the "queen bee" label itself has been critiqued as sexist (Mavin, 2006, 2008), as it blames women rather than men for unequal career outcomes among women and propagates the stereotypical assumption that women should display solidarity toward each other but that men can compete against each other for the best jobs.

We propose that queen-bee behavior is an outcome of gender discrimination in the workplace. Because people base part of their identity on social categories, such as their gender, they are sensitive to contextual evaluations of those categories (Tajfel & Turner, 1986). Organizations that devalue women threaten the identity of female workers. Women can cope with such threats by trying to improve the standing of their group (collective action) or by improving their individual careers (individual mobility; Ellemers, Spears, & Doosje, 1997). Although individuals can theoretically pursue personal and collective goals simultaneously, collective responses may jeopardize individual outcomes, and individual responses may limit opportunities for group advancement (Ellemers & Van Laar, 2010). When women come to perceive their gender as a liability, this may induce them to advance their career through queen-bee behavior: emphasizing their masculine characteristics, expressing gender-stereotypical views of other women, and denying the existence of gender bias. Although queen-bee behavior benefits individual women, it also leads successful women to distance themselves from other women; such behavior reduces the likelihood that queen bees will improve opportunities for other women or be seen as role models by female subordinates (Ely, 1994).

We propose that queen-bee behavior is most likely to be observed among women for whom gender bias is salient but who consider their gender as unimportant to their work identity. Women can define themselves in terms of their gender in one setting (e.g., among friends) but perceive their gender as irrelevant in other settings (e.g., at work). Whereas highly gender-identified women (high identifiers) have been found to respond to group-based devaluation with attempts to improve the entire group's outcomes, women with low gender identification (low identifiers) optimize their individual outcomes even when this strategy decreases opportunities for other women (Ellemers et al., 1997). We previously found initial evidence for the validity of this analysis in a correlational study among female executives (Derks et al., 2011). In that study, low identifiers who also reported that they encountered gender bias during their career described themselves in highly masculine terms and as more committed to their career than

other women were. In addition, they perceived their female subordinates as less committed to their careers than they perceived their male subordinates to be. However, it was impossible to rule out reversed causality (e.g., queen bees receive more discriminatory treatment) or retrospective biases (e.g., queen bees recall lower gender identification and higher levels of experienced discrimination than other women do).

To specify the causal relationship between experienced gender bias and queen-bee responses and to overcome issues associated with retrospective self-reports, we asked separate groups of women in the study reported here to recall either the presence or absence of gender bias in their own work experience. We measured effects on several indicators of the queen-bee phenomenon (masculine self-descriptions, distancing from other women, denial of gender discrimination) as well as indicators of collective action (positive attitudes toward programs aimed at improving women's outcomes, willingness to help female subordinates advance). We hypothesized that the effects of reminding women of gender bias would differ depending on the degree to which women identified with their gender at work. Low identifiers were predicted to respond with queen-bee behavior, and high identifiers were predicted to respond with increased collective action.

Method

Participants

The study was conducted online. Participants were 63 Dutch female police employees with senior positions as defined by their pay scale. The police force is a highly masculine organization with relatively few female employees (32%) and very few female managers (13%; Kop & Van Der Wal, 2008).

Procedure

Participants were assigned to either the gender-bias or control condition, in which they were primed or not primed, respectively, to recall experiences of gender bias. We administered 30 items to measure queen-bee behavior and propensity for collective action. All of these items were measured on 7-point scales (1, *completely disagree*, to 7, *completely agree*).

Independent variables. The two independent variables in our study were gender identification and gender bias in the workplace. First, we administered four items to measure the degree of gender identification (high or low) at work: "At work, being a woman is important to me," "I currently feel connected to other women at work," "At work, I feel part of the group of women," and "I identify with other women at work" ($r = .86$). Gender bias was then primed by inducing a temporary focus on either the presence or absence of gender discrimination. Participants in the two conditions read how work environments differ in the degree to which women are evaluated on the basis of personal characteristics, gender, and gender-associated stereotypes.

Subsequently, participants in the gender-bias condition were asked to describe an experience in which they had been treated on the basis of gender stereotypes rather than on their personal qualifications. In contrast, participants in the control condition were asked to write about an experience in which their personal qualifications had been acknowledged and gender bias had not been an issue. Participants were also asked to describe their emotions and how the experience they recalled had affected their career.

Dependent variables. Seven dependent variables were then measured. High identifiers have been found to chronically perceive and expect gender discrimination more often than low identifiers do (Kaiser & Pratt-Hyatt, 2009; Schmader, 2002). To control for these differences, we measured experienced gender discrimination with six items (e.g., “In my career being a woman was often an issue,” “I sometimes worried whether colleagues and subordinates would view me through the lens of stereotypes about women and police work”; $\alpha = .85$). Queen-bee behavior was assessed by measuring feminine and masculine self-descriptions on separate four-item scales (feminine: e.g., “I am a caring/compassionate/sensitive/understanding leader”; $\alpha = .74$; masculine: e.g., “I am a charismatic/dedicated/determined/intelligent leader”; $\alpha = .50$; Scott & Brown, 2006). In-group distancing was measured with one item (“I am different from many other policewomen”), and denial of discrimination was measured with two items: “During my career in the force, women and men received equal career support” and “Women are sometimes passed for promotion because of gender discrimination in the police force” ($r = .55$; the latter item was reverse coded). Collective action was measured using a four-item scale that queried attitudes toward equal-opportunity programs (e.g., “I think it is good that action is taken within the police force for female emancipation”; $\alpha = .73$), and willingness to work for the advancement of female subordinates was measured on a five-item scale (e.g., “I am willing to act as a mentor for junior women in our police department”; $\alpha = .83$). Finally, we assessed demographic variables (age, number of children) and work-related variables (organizational tenure, self-rated organizational level, number of work hours per week).

Results

Correlations between all variables confirmed that there were no selection effects (see Table 1 for correlations plus means and standard deviations). Participants’ gender identification showed no relationship with demographic background or work-related variables. As anticipated, high identifiers indicated having experienced discrimination more often than low identifiers did. Therefore, we controlled for self-reported experienced gender discrimination in all analyses. It is important to note that there were no significant relations between condition and gender identification, nor with condition and any of the background variables.

Overview of regression analyses

To test our hypotheses, we performed hierarchical regression analyses (Aiken & West, 1991). To test effects of the gender-bias reminder over and above the effects of previous gender-bias experiences, we entered self-reported experienced gender discrimination in Step 1. In Step 2, the main effects of gender identification and the gender-bias prime (1 = control condition, 2 = gender-bias condition) were tested. In Step 3, the interaction between gender identification and the gender-bias prime was entered. Significant interactions were interpreted by testing simple slopes for effects of the manipulation among low ($-1 SD$) and high ($+1 SD$) identifiers (Preacher, Curran, & Bauer, 2006).

Do gender-bias reminders elicit queen-bee responses?

As hypothesized, separate regression analyses revealed significant interaction effects between gender identification and the gender-bias manipulation on masculine self-presentation, $\beta = -0.26$, $F(1, 58) = 5.43$, $p = .02$, semipartial $r^2 = .09$, distancing from other women, $\beta = -0.21$, $F(1, 58) = 4.16$, $p = .046$, semipartial $r^2 = .07$, and denial of discrimination, $\beta = -0.64$, $F(1, 58) = 6.26$, $p = .015$, semipartial $r^2 = .10$ (see Fig. 1). Simple-slopes analyses revealed that reminding low identifiers of gender bias (compared with not reminding low identifiers in the control group) led to more masculine self-presentation, $b = 0.47$, $t(58) = 2.17$, $p = .03$, marginally more distancing, $b = 0.76$, $t(58) = 1.83$, $p = .07$, and more denial of discrimination, $b = 1.30$, $t(58) = 3.20$, $p = .002$. High identifiers’ responses on all three of these indicators of the queen-bee syndrome were unaffected by the manipulation (all $ps > .25$). There were no differences in self-presentation on feminine traits ($M = 5.17$, $SD = 0.82$; all $F_s < 1$).

Do gender-bias reminders motivate the pursuit of collective action?

The Gender-Bias Prime \times Gender Identification interaction significantly predicted attitudes toward equal-opportunity programs, $\beta = 0.46$, $F(1, 58) = 5.19$, $p = .03$, semipartial $r^2 = .08$, and willingness to help advance female subordinates, $\beta = 0.38$, $F(1, 58) = 4.65$, $p = .04$, semipartial $r^2 = .07$ (see Fig. 2). As predicted, high identifiers in the gender-bias condition were significantly more supportive of equal-opportunity initiatives, $b = 0.91$, $t(58) = 2.78$, $p = .007$, and marginally more willing to help advance female subordinates, $b = 0.55$, $t(58) = 1.72$, $p = .09$, than high-identifiers in the control condition were. There were no differences between the two conditions on these indicators of collective action among low identifiers (all $ps > .18$).

Discussion

The experiment reported here is the first to show that reminders of experienced organizational gender bias stimulate queen-bee

Table 1. Descriptive Statistics and Correlations Among Independent Variables, Background Variables, and Dependent Variables

Variable	Mean	Correlations																
		1	2	3	4	5	6	7	8	9	10	11	12	13				
1. Gender identification ^a	3.22 (1.35)																	
2. Experimental condition ^b	1.48 (0.50)	-.06																
3. Age	40.65 (6.79)	-.17	.07															
4. Number of children	1.11 (1.12)	.15	.13	.06														
5. Years in police force	13.41 (9.49)	-.01	.01	-.55**	.11													
6. Self-rated organizational level ^c	7.51 (1.08)	-.02	-.01	.12	-.01	.19												
7. Number of work hours per week	35.03 (4.02)	-.23	-.07	.14	-.45**	.14	.23											
8. Experienced gender discrimination ^a	3.32 (1.38)	.36**	-.03	.06	.06	.22	.00	-.09										
9. Masculine self-presentation ^a	5.45 (0.64)	-.07	.09	.25*	-.09	.36**	.25*	.34**	.24									
10. Feminine self-presentation ^a	5.17 (0.82)	.07	.02	.22	.01	.27*	.06	.01	.26*	.46**								
11. In-group distancing ^a	4.35 (1.17)	-.03	.07	-.15	-.15	.14	.11	.25*	.02	.26*	.15							
12. Denial of discrimination ^a	3.54 (1.51)	-.19	.22	-.26*	.01	-.21	.19	.09	-.50**	-.05	-.13	.21						
13. Positive equal-opportunity attitudes ^a	4.46 (0.98)	.29*	.17	.05	.28*	.01	-.32*	-.40**	.15	-.10	-.01	-.19	-.24					
14. Willing to work for advancement of other women ^a	5.04 (1.07)	.44**	.00	.24	.21	.35**	-.13	-.17	.47**	.16	.30*	-.09	-.39**	.53**				

Note: N = 63. Standard deviations are given in parentheses.

^aThese items were measured on 7-point scales. ^bExperimental condition was coded 1 for control condition and 2 for gender-bias condition. ^cOrganizational level was rated on a scale from 1, very low, to 10, very high.

* $p < .05$. ** $p < .01$.

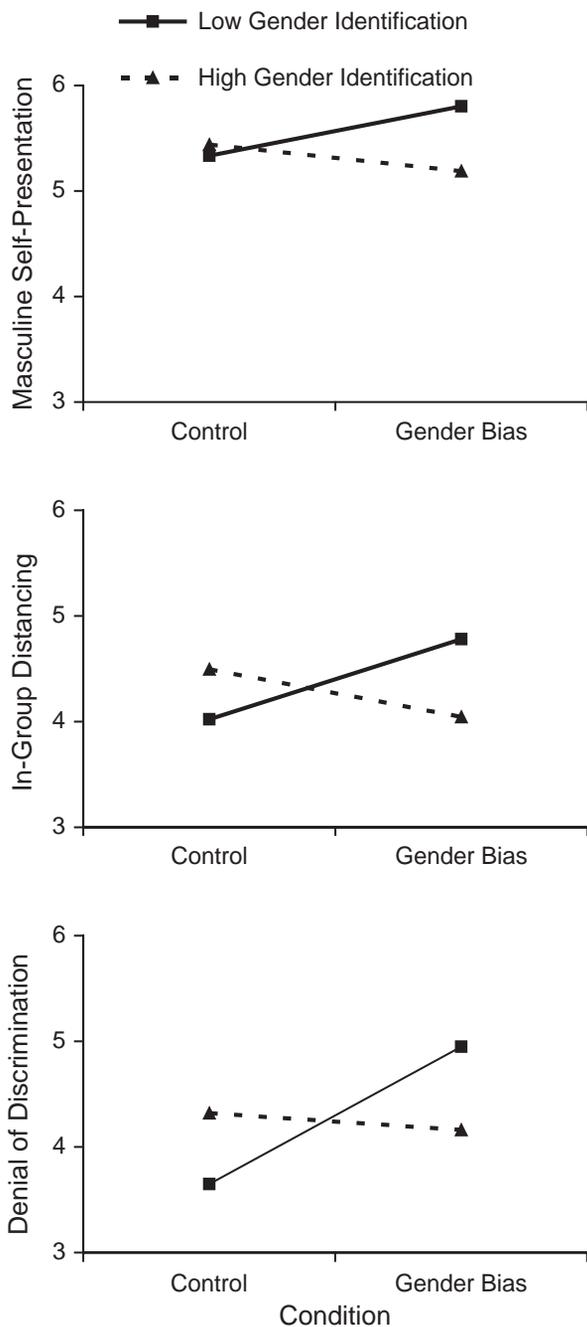


Fig. 1. Interactive effect of gender bias and gender identification on indicators of the queen-bee phenomenon. From top to bottom, the three graphs show masculine self-presentation, distancing from other women, and denial of gender discrimination as a function of condition and gender identification (low = -1 SD, high = $+1$ SD).

behavior among senior-ranking women with low gender identification at work. After being reminded of gender bias that they encountered in their careers, such women described themselves in more masculine terms, emphasized that they differed from their female colleagues, and downplayed the pervasiveness of gender discrimination. By contrast, high identifiers became motivated to improve opportunities for their female

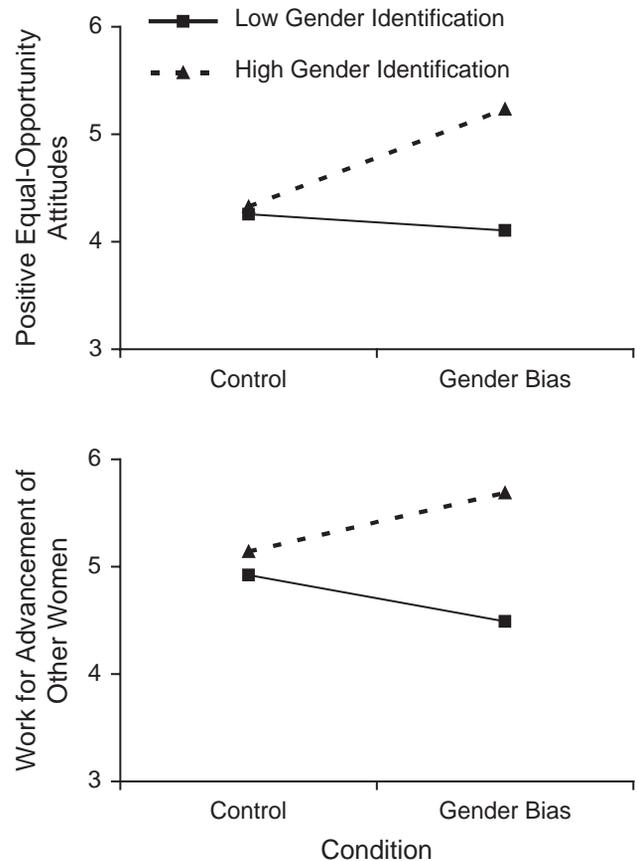


Fig. 2. Interactive effect of gender bias and gender identification on indicators of collective action. The two graphs show positive attitudes toward equal-opportunity programs and willingness to work for the advancement of other women as a function of condition and gender identification (low = -1 SD, high = $+1$ SD).

subordinates when reminded of gender bias. It is important to note that when reminded of the absence of gender bias, both low and high identifiers showed similar responses and less queen-bee behavior. These results suggest that the queen-bee phenomenon is more likely to occur when women consider their own experiences with organizational gender bias (Ellemers et al., 1997).

These results were found among a diverse group of women with actual senior positions in an unquestionably masculine organization. They demonstrate that queen-bee responses can be elicited with experimental primes, irrespective of previous career experiences. Moreover, they illustrate how queen bees limit opportunities for their female subordinates: By denying the existence of gender bias when occupying high positions and by distancing themselves from other women, queen bees implicitly legitimize women's low organizational status and are unlikely to inspire their female subordinates as role models.

A limitation of our experiment is that gender identification was measured rather than manipulated. Indeed, the results showed that low and high identifiers differed in the degree to which they reported having perceived gender discrimination during their careers. However, our results were obtained after

controlling for this covariation, a precaution that excluded the possibility that responses to the experimental prime depended on prior experiences. Moreover, comparable effects of identification on individual versus collective responses were found in prior research in which group identification was manipulated (Ellemers et al., 1997). This finding enhances our confidence that responses to gender bias in the study reported here were also due to gender identification.

In the control condition, rather than simply having a filler task, participants were asked to recall a situation in which their personal qualities were acknowledged. This was done so that both low and high identifiers in the control condition would explicitly focus on the absence of gender bias. Given that high identifiers are more concerned about social identity and are more likely to perceive sexism, not explicitly focusing participants on the absence of discrimination in the control condition might have induced differences between low and high identifiers in spontaneous attention to gender discrimination and in subsequent responses. Consequently, high identifiers' collective responses and differences between low and high identifiers may be more pronounced in more natural settings.

The results of our study may seem to suggest that queen-bee responses can be reduced by inducing women at work to ignore gender bias and by emphasizing situations in which their individual characteristics are acknowledged—as in our control condition. Members of low-status groups are in fact often stimulated to ignore discrimination and focus on their individual opportunities instead. However, it is important to note that although inducing women to ignore organizational gender bias may reduce queen-bee responses, the results of this study also show that such a manipulation is likely to preserve inequality for women in the workplace: Inducing high identifiers to ignore gender bias when it is in fact present reduces their motivation to pursue collective action (Wright, 2001). A more viable solution to altering queen-bee behaviors and the equality of women in organizations involves actively reducing experiences of gender bias and initiating steps to improve the position of women. Only when women at work no longer see their gender as a liability or perceive queen-bee behavior as a way to achieve success will the queen-bee phenomenon become extinct.

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Declaration of Conflicting Interests

The authors declared that they had no conflicts of interest with respect to their authorship or the publication of this article.

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