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## Abstract

Benevolent sexism (BS) has detrimental effects on women, yet women prefer men with BS attitudes over those without. The predominant explanation for this paradox is that women respond to the superficially positive appearance of BS without being aware of its subtly harmful effects. We propose an alternative explanation drawn from evolutionary and sociocultural theories on mate preferences: women find BS men attractive because BS attitudes and behaviors signal that a man is *willing to invest*. Five studies showed that women prefer men with BS attitudes (Studies 1a, 1b & 3) and behaviors (Studies 2a & 2b), especially in mating contexts, because BS mates are perceived as willing to invest (protect, provide, and commit). Women preferred BS men despite also perceiving them as patronizing and undermining. These findings extend understanding of women's motives for endorsing BS and suggest that women prefer BS men despite having awareness of the harmful consequences.

*Keywords:* benevolent sexism; mate preferences; romantic relationships; social role theory; parental investment theory

According to ambivalent sexism theory, sexism is marked by a mixture of hostile and benevolent attitudes (Glick & Fiske, 1996). Hostile sexism (HS) encompasses overtly prejudiced attitudes, whereas benevolent sexism (BS) involves subjectively positive attitudes (e.g., “women should be cherished and protected by men”), chivalrous behaviors, and attempts to achieve intimacy with women (Dardenne, Dumont, & Bollier, 2007; Glick & Fiske, 1996). Despite its romantic and flattering tone, BS is thought to reinforce the notion that women are “inferior”, and confine women to their traditional gender roles (Glick & Fiske, 2001).

Many studies have demonstrated that endorsement of BS by women is associated with harmful consequences, including: increasing women’s approval of protective restrictions imposed by a husband (Moya, Glick, Exposito, de Lemus, & Hart, 2007); increasing women’s acceptance of restrictions on their behavior during courtship (Viki, Abrams, & Hutchison, 2003); increased seeking of dependency-oriented help from men (Shnabel, Bar-Anan, Kende, Bareket, & Lazar, 2016); and decreasing women’s interest in independent thought and goal pursuit (Feather, 2004). Exposure to BS can lead women to perceive themselves as less competent at work (Dumont, Sarlet, & Dardenne, 2010), reduce their cognitive performance (Dardenne et al., 2007), undermine support for collective action against gender inequality (Becker & Wright, 2011), and increase self-objectification (Calogero & Jost, 2011).

Women nevertheless report liking men with BS attitudes (Barreto & Ellemers, 2005; Kilianski & Rudman, 1998) and even find them more attractive than non-BS men (Bohner, Ahlborn, & Steiner, 2010). Evidence shows that many women – even those who desire egalitarian relationships – want a man to be chivalrous, by, for example, paying for dates and opening doors for them (Lamont, 2014; Lever, Frederick, & Hertz, 2015). Given its harmful effects, it is important to understand why women nevertheless approve of BS.

One prominent explanation has been that BS is an ‘insidious’ ideology: women like BS because they respond to its ‘subjectively positive’ appearance without being aware of its subtly harmful effects (Glick & Fiske, 1996, 2001; Goh & Hall, 2015). For example, authors have argued that “BS tends not to be recognized as sexism by those who are exposed to it and therefore is likely to remain unchallenged” (Barreto & Ellemers, 2005, *p.* 639). Evidence taken in support of this ‘insidiously harmful’ view includes the findings that women do not report feeling that the attitudes on the BS scale are ‘prejudiced’, because BS individuals are not perceived as prototypical sexists (Barreto & Ellemers, 2005; Dardenne et al., 2007).

One account that elaborates on the insidiously harmful view to explain women’s active preference for BS men over non-BS men is the protection racket hypothesis. According to this hypothesis, women adopt BS attitudes because it helps them deal with the threat of men’s HS by rewarding them with protection, provision, and affection (Glick & Fiske, 2001; Sarlet, Dumont, Delacollette, & Dardenne, 2012; Sibley et al., 2009). One study showed that in nations where men endorsed higher levels of HS, women endorsed higher levels of BS (Glick et al., 2000). The authors interpreted these findings as showing that women are more likely to value the benefits offered by BS in cultures in which they perceive men to be hostile. In support of this, Fischer (2006) showed that women endorsed stronger BS attitudes after reading about research showing that men hold hostile attitudes toward women. Thus, the protection racket hypothesis suggests that women may find BS men attractive because BS attitudes can protect them against other men’s HS.

The first main aim of the present research was to test the *insidiously harmful assumption* to find out whether the potentially undermining consequences of BS attitudes and behaviors really do go unnoticed by women. Our second aim was to introduce an alternative explanation for women’s approval of BS, drawn from evolutionary and sociocultural perspectives on human mate preferences. We propose that attitudes and behaviors typically

included under the rubric of BS are taken as signals by women that a man has characteristics that are desirable in a potential mate; specifically, that he is *willing to invest* (Trivers, 1972) by being protective, providing, and committed. This *benevolence as a mate-preference* perspective suggests that women may prefer BS men despite knowing that they can be undermining because the desirable aspects of a man's benevolent attitudes and behaviors outweigh the potential downsides. To substantiate our hypothesis, we turn to theory and research on mate preferences.

### **Benevolence as a Mate-Preference**

According to parental investment theory, sex differences in parental investment – typically months of gestation followed by energetically costly lactation for the female, compared to a few sex cells from the male – mean that females will be the more selective sex (Trivers, 1972). If investment by the male parent increases the survival prospects of offspring, through the provision of food, or protection of the female and offspring- as is thought to have been the case in humans (e.g., Gurven & Hill, 2009) - then females who select mates who are able and willing to provide these resources leave more descendants than less selective females (Trivers, 1972). Accordingly, research has shown that, across cultures, women report stronger preferences than men for mates with characteristics indicating *ability* to invest, namely, good financial prospects, ambition and industriousness (Buss, 1989; Li, Bailey, Kenrick, & Linsenmeier, 2002; Marlowe, 2004). However, the ability to invest does not guarantee that these resources will be used for the benefit of the mother and her offspring, because paternal investment is facultative (i.e., the level of male investment depends on past experiences and current circumstances). Males in modern hunter gatherer populations, for example, may instead use resources to obtain extra-pair mating opportunities or to enhance alliances with other males (Gurven & Hill, 2009; Hawkes, O'Connell, & Jones, 2001). Therefore, selection is also likely to have shaped female psychology to attend to, and prefer,

male characteristics and behaviors that reveal *willingness* to invest. Indeed, although less studied than preferences for *ability* to invest, evolutionary theorists have predicted that women should also prefer a mate who is *willing* to invest resources in her and her offspring (Buss, 1989; Geary, 2000; Li et al., 2002; Trivers, 1972). Women may approve of BS, therefore, because the benevolent attitudes and behaviors described on the BS scale are effective signals that a man is willing to invest.

The sociocultural theory of mate preferences (Zentner & Eagly, 2015) suggests that sex differences in mate preferences are rooted in social and cultural situations which require different responses due to the restrictions and opportunities faced by men and women. People desire mates who enable them to minimize costs and maximize benefits (in terms of well-being) within the restrictions and opportunities present in their society (Zentner & Eagly, 2015). Society's division of labor between the sexes – women in domestic and communal roles, and men in agentic and paid work roles – is the main cause of these restrictions and opportunities (Eagly & Wood, 1999; Zentner & Eagly, 2015). If, for example, society encourages male breadwinner and female homemaker roles, then women (because they lack independent resources) can maximize their outcomes by seeking a mate who is likely to be successful in the income-earning, provider role (Zentner & Eagly, 2015).

Accordingly, studies have shown that women who strongly endorsed traditional gender role beliefs had stronger preferences for a mate with good provider qualities (Eastwick et al., 2006; Johannesen-Schmidt & Eagly, 2002; Koyama, McGain, & Hill, 2004). In addition, after imagining themselves as a homemaker, women rated a mate's provider qualities as more important (Eagly, Eastwick, & Johannesen-Schmidt, 2009). If women are attracted to mates with provider qualities, then it is reasonable to assume that they would be attracted to men who not only have the *ability* to provide these benefits, but who are also *willing* to provide them, by being protective, providing, and committed. These attributes may

be identified by attending to a man's attitudes and behaviors, especially when the man is perceived as a potential mate. Women might approve of BS, therefore, because men with benevolent attitudes and behaviors can maximize women's benefits by offering what they tend to lack (the provision of material resources) within the gender-role divided society.

In summary, both the sociocultural and evolutionary perspectives on mate preferences<sup>1</sup> suggest that the display of benevolent attitudes and behaviors are preferred by women because they are taken as signals that a man is likely to be willing to invest by being, for example, protective and committed and by providing resources. Some existing findings support this account. A recent study demonstrated that women who perceive their partners as endorsing BS also perceive those partners as relatively more willing to sacrifice, invest and commit to the relationship (Cross, Overall, & Hammond, 2016). Another study found that women regard a man's *protective paternalism* (i.e., the belief that men should protect, cherish, and provide for women) as positive and see it as intimacy, rather than sexism, in a romantic relationship context (Sarlet et al., 2012). These studies indicate that BS signals to women that a man is willing to invest but did not test whether this explains why women find BS men more attractive than non-BS men. Bohner et al. (2010) found that women rated high BS men more likeable and attractive than low BS men. The authors suggested that displaying BS attitudes and behaviors could have adaptive advantages for men by increasing their desirability as mates. This suggestion coheres with our benevolence as a mate-preference hypothesis, but our account focuses on explaining women's preferences for BS attitudes and behaviors, rather than on men's motives to display them.

### **The Present Research**

We derived several predictions from our mate-preference account. First, women should perceive a male romantic partner who holds BS attitudes and displays BS behaviors as more attractive than one who does not. Second, greater attraction should be explained by the

man's willingness to protect, provide, and commit (conceptualized as components of willingness to invest). Third, a BS man will be rated as especially attractive when described as a potential romantic partner compared to a work colleague, since the latter should not activate mating motivations to the same extent.

In contrast to previous research that has characterized BS as insidiously and subtly harmful, we predicted that women would recognize a BS man as more patronizing and potentially undermining than a non-BS man. We expected that women would still find the BS man more attractive, due to signals of willingness to invest revealed by BS attitudes or behaviors.

Following methods used by previous researchers (e.g., Barreto & Ellemers, 2005; Bohner et al., 2010; Kilianski & Rudman, 1998; Ramos, Barreto, Ellemers, Moya, & Ferreira, 2016), in Studies 1a, 1b and 3, participants evaluated profiles of men created using items from the BS subscale of the Ambivalent Sexism Inventory (Glick & Fiske, 1996). Studies 2a and 2b investigated whether findings using BS attitudes generalized to BS behaviors. If attraction to BS men is based on mate preference psychology, then findings should not be limited to women who endorse traditional gender attitudes. Therefore, in Studies 1a and 2a, we examined whether effects held for women endorsing high as well as low levels of feminism. Finally, in Study 3, we measured women's perceptions of male HS to test an alternative explanation – that BS men are desirable because they offer protection against men's hostile sexism (i.e. the protection racket hypothesis).

### **Study 1a**

Study 1a tested the predictions that: a romantic partner with BS attitudes would be found more attractive than one with non-BS attitudes, despite finding him to have a more patronizing and undermining manner; this would be explained by cues of greater willingness to invest (protect, provide, and commit); and the effects of BS attitudes on attractiveness

would be greater when a man is evaluated as a potential romantic partner compared to a non-mate such as a work colleague.

Additionally, because research has suggested that women perceive men with BS attitudes as warmer than those without (Barreto & Ellemers, 2005; Glick & Fiske, 2001), we investigated whether attractiveness was primarily driven by the mating-related quality of willingness to invest, rather than simply by warmth. We also measured women's feminist beliefs and examined whether effects held for women endorsing high and low levels of feminism, in case only women without strong gender equality beliefs rate BS men as more attractive.

## **Method**

**Participants.** Inputting a small to medium interaction effect size ( $\eta_p^2 = .035$ ) into G\*Power determined a sample size of 219 at 80% power. Of 330 female student participants, excluding those who reported being non-heterosexual or who failed to pass an attention check item, left data from 233 participants ( $M_{\text{age}} = 19.77$ ,  $SD_{\text{age}} = 4.00$ ) for analysis.<sup>2</sup>

**Design and procedure.** Participants were randomly assigned to one of four experimental conditions in a 2 (attitude type: BS vs. non-BS) x 2 (relationship type: romantic partner vs. work colleague) between-subjects design. They read a profile of a man described as either a potential romantic partner or work-colleague, and as holding either BS attitudes or non-BS attitudes towards women. The profiles were based on seven items tapping into each component of the BS construct (Glick & Fiske, 1996). The non-BS items were created by rewriting the BS items similarly to Kilianski and Rudman (1998) (see Supplemental Materials for the profiles). After reading the profiles, participants indicated their perceptions of the target on several characteristics on 7-point scales ranging from (1) *not at all* to (7) *very*, and (4) *somewhat*.

## **Measures.**

**Perception of the targets.** Participants rated, *willingness to protect* with items asking how safe, vulnerable and cared for they would feel with him ( $\alpha = .73$ ), *willingness to provide* with items asking how generous, helpful and selfish he would be towards them ( $\alpha = .84$ ), *willingness to commit* with items asking how dependable, loyal and committed he would be ( $\alpha = .86$ ), *attractiveness* asking how attractive they find him and how good a boyfriend/husband he would be ( $r = .81$ ), and *patronizing and undermining manner* with items asking participants how patronizing, controlling, and dominating he would be, and how inferior, powerless, and incompetent he would make them feel ( $\alpha = .94$ ). Participants also rated *warmth* of the target with an item asking how warm he is.

**Feminist beliefs.** Participants rated the 18-item Feminist Attitudes and Ideology Questions (Koyama et al., 2004) on a (1) *strongly disagree* to (7) *strongly agree* scale ( $\alpha = .76$ ).

## Results

Tables 1 and 2 present bivariate correlations, means and standard deviations.

**Perception of the targets.** As expected, the BS target was perceived as warmer,  $F(1, 228) = 121.47, p < .001, \eta_p^2 = .35$ , more willing to protect,  $F(1, 228) = 112.62, p < .001, \eta_p^2 = .33$ , provide,  $F(1, 228) = 143.54, p < .001, \eta_p^2 = .39$ , commit,  $F(1, 228) = 56.68, p < .001, \eta_p^2 = .20$ , more attractive,  $F(1, 228) = 72.77, p < .001, \eta_p^2 = .24$ , but also more patronizing and undermining,  $F(1, 228) = 42.91, p < .001, \eta_p^2 = .16$ , than the non-BS target.

Interaction effects were significant for willingness to protect,  $F(1, 228) = 8.06, p = .005, \eta_p^2 = .03$ , provide,  $F(1, 228) = 12.96, p = .001, \eta_p^2 = .05$ , and commit,  $F(1, 228) = 36.23, p < .001, \eta_p^2 = .14$ . As expected, the BS romantic partner was rated as more willing to commit,  $F(1, 228) = 16.86, p < .001, \eta_p^2 = .08$ , provide,  $F(1, 228) = 5.07, p = .03, \eta_p^2 = .02$ , and protect,  $F(1, 228) = 3.62, p = .06, \eta_p^2 = .02$ , than the BS work colleague. Furthermore the non-BS romantic partner was rated as less willing to commit,  $F(1, 228) = 16.44, p < .001, \eta_p^2 = .14$ .

= .07, provide,  $F(1, 228) = 8.06, p = .005, \eta_p^2 = .03$ , and protect,  $F(1, 228) = 4.46, p = .04, \eta_p^2 = .02$ , than the non-BS work colleague. All other effects were non-significant ( $F$ 's < 1).

**Test of the BS as a mate-preference account.** We tested for a moderated mediation model using the bootstrapping PROCESS approach by Hayes (2013; Model 59). First, we created a willingness to invest measure as a composite of items measuring willingness to protect, provide, and commit ( $\alpha = .91$ ) to include as a mediator in the model (a factor analysis revealed a one-factor solution with loadings ranging from .34 to .87). As Figures 1a and 1b show, in the romantic partner condition, willingness to invest mediated the effect of BS attitudes on perceived attractiveness beyond perceived warmth. However, in the work colleague condition, willingness to invest did not mediate the effect of BS attitudes on perceived attractiveness beyond perceived warmth.

**Moderating effect of feminist beliefs.** To test whether the effect of BS attitudes on perceived attractiveness held for women who have strong gender equality beliefs, we conducted a moderated mediation analysis (Model 73; Hayes, 2013), shown in Figures 2a-2d.

Feminist beliefs moderated the effect of BS on attractiveness in the romantic partner,  $b = -1.03, SE = .43, CIs [-1.82, -.25]$ , and work colleague conditions,  $b = -2.25, SE = .43, CIs [-3.09, -1.39]$ . As expected, the BS man was perceived as more attractive than the non-BS man in the romantic relationship condition for both low feminists ( $M_{BS} = 5.46; M_{Non-BS} = 3.19$ ) and high feminists ( $M_{BS} = 4.76; M_{non-BS} = 3.83$ ), but only low feminists perceived the BS man as more attractive than the non-BS man in the work colleague condition (low-feminists:  $M_{BS} = 5.73; M_{non-BS} = 2.45$ ; high-feminists:  $M_{BS} = 4.28; M_{non-BS} = 3.90$ ).

Furthermore, as expected, in the romantic partner condition, the indirect effect of BS on attractiveness through willingness to invest was significant for low feminists ( $\beta = 1.33, SE = .25$ ) and for high feminists ( $\beta = 1.05, SE = .24$ ) – the difference between these indirect effects was non-significant ( $z = .80, p = .42$ ) (Paternoster, Mazerolle, & Piquero, 1998). In the work

colleague condition, willingness to invest was a significant mediator for low feminists only. Importantly, even though, for low feminists, willingness to invest was a significant mediator in both romantic partner ( $\beta = 1.33, SE = .25$ ) and work colleague conditions ( $\beta = .47, SE = .17$ ), the indirect effect of willingness to invest was significantly stronger in the romantic partner condition compared to the work colleague condition ( $z = 2.84, p = .004$ ).

## **Discussion**

Study 1a supported the prediction that a BS romantic partner would be perceived as more willing to protect, provide, and commit (willing to invest), and, consistent with Bohner et al. (2010), more attractive than a non-BS romantic partner. In addition, findings indicated that the detrimental effects of men's BS do not pass unnoticed by women, contrary to previous claims (e.g., Barreto & Ellemers, 2005; Glick & Fiske, 2001; Goh & Hall, 2015). Despite perceiving the BS partner as more undermining and patronizing than the non-BS partner, women still found the BS partner more attractive. According to the mediation analysis, this was because the appeal of the BS partner's willingness to invest outweighed the perceived downsides of his patronizing and undermining manner.

Attraction to the BS romantic partner was not accounted for merely by his perceived warmth. In contrast, the BS work colleague's perceived attractiveness was not explained by perceived willingness to invest, once his warmth was controlled for. Importantly, the preference for a potential mate with BS attitudes applied to high as well as low feminist women, suggesting that BS is attractive because benevolence is a mate preference for women in general, not only for women who consent to traditional gender roles. This accords with other evidence showing that high feminist women are as likely as low feminist women to prefer BS men over non-BS men (Bohner et al., 2010). Moreover, in the current study, the indirect effect of perceived patronizing and undermining manner of the BS man was significant for high feminist women (not for low feminist women), but only when they were

evaluating the man as a romantic partner, not as a work colleague. Yet high feminist women nevertheless rated the BS romantic partner as more attractive than the non-BS romantic partner. This suggests that the harmful effects of a mate's BS attitudes are more salient for women who strongly support gender equality, but even for them, the appeal of a mate who shows willingness to invest outweighs the perceived negative effects of BS attitudes.

### **Study 1b**

The aim of Study 1b was to ensure that the findings obtained from Study 1a replicated when some minor adjustments were made to the scenarios. In study 1a, the non-BS profiles were created using negations of the BS scale items (e.g., "Mark firmly believes that people can be truly happy in life *without* being romantically involved with a member of the other sex."). To ensure that lower ratings of the non-BS man's attractiveness were not due to negative-sounding attitudes or perceptions of him as not being interested in relationships, we reworded some of the non-BS items to make them less negative in tone to ensure that the items reflected egalitarian attitudes rather than a lack of interest in women (e.g., "Mark firmly believes that people can be truly happy in life *even if they* are not romantically involved with a member of the other sex."). Secondly, we made it clearer that both men had a romantic interest in the participant, and that both men were keen on having a serious relationship with the right person (see Supplemental Materials for the full profile). Furthermore, in addition to measuring and controlling perceived warmth in our mediation analysis, we also measured and controlled for perceptions of the target's interest in relationships. Finally, to ensure that findings were robust to order effects, we created six different versions of the BS and non-BS profiles by varying the order of the statements in the profile. Our sample was a community sample recruited from an online source (Prolific Academic), rather than the undergraduate psychology student samples used in Study 1a. Even with these changes, results of Study 1a fully replicated.

## Method

**Participants.** From 185 females participated; excluding those who failed to pass an attention check item left data from 178 participants ( $M_{\text{age}} = 40.31$ ,  $SD_{\text{age}} = 11.52$ ) for analysis.

**Design, procedure and measures.** The design of the study was exactly the same as in Study 1a, except all participants viewed the romantic partner condition. Participants rated *relationship interest* ( $r = .81$ ); asking how interested the target was in having relationships with women and in a relationship with the right person, and the same items as in Study 1a: *perceived attractiveness* ( $r = .85$ ), *willingness to protect* ( $\alpha = .88$ ), *provide* ( $\alpha = .81$ ), *commit* ( $\alpha = .95$ ), *patronizing and undermining manner* ( $\alpha = .93$ ), *warmth* ( $\alpha = .92$ ).

## Results

Table 3 presents means and standard deviations (bivariate correlations are shown in Table S1 in Supplemental Materials).

**Perception of the targets.** As expected, the BS target was perceived as warmer,  $F(1, 176) = 18.99$ ,  $p < .001$ ,  $\eta_p^2 = .10$ , more interested in relationships,  $F(1, 176) = 93.13$ ,  $p < .001$ ,  $\eta_p^2 = .35$ , more willing to protect,  $F(1, 176) = 45.18$ ,  $p < .001$ ,  $\eta_p^2 = .20$ , provide,  $F(1, 176) = 85.52$ ,  $p < .001$ ,  $\eta_p^2 = .33$ , commit,  $F(1, 176) = 43.01$ ,  $p < .001$ ,  $\eta_p^2 = .20$ , and more attractive,  $F(1, 176) = 5.00$ ,  $p = .03$ ,  $\eta_p^2 = .03$ , but also more patronizing and undermining,  $F(1, 176) = 23.94$ ,  $p < .001$ ,  $\eta_p^2 = .12$ , than the non-BS target.

**Test of the BS as a mate-preference account.** We tested for a mediation model using the bootstrapping PROCESS approach by Hayes (2013; Model 4). First, we created a willingness to invest measure as a composite of items measuring willingness to protect, provide, and commit ( $\alpha = .95$ ) to include as a mediator in the model (a factor analysis revealed a one-factor solution with loadings ranging from .61 to .93). We controlled for target's warmth and interest in relationships in the analysis. Both willingness to invest,  $b = .28$ ,  $SE = .11$ ,  $CI$ s [.11, .55], and patronizing and undermining manner,  $b = -.29$ ,  $SE = .12$ ,  $CI$ s

[-.57, -.09], mediated the effect of BS attitudes on perceived attractiveness beyond perceived warmth and relationship interest.

## **Discussion**

The findings from Study 1b were consistent with those of Study 1a, showing that the results were robust to changes in the wording of the non-BS man's attitudes. Furthermore, although the BS man was perceived as more interested in relationships than the non-BS man, this did not account for the former's greater attractiveness, which was explained by the BS man's perceived willingness to invest.

### **Study 2a**

Study 2a aimed to test whether the findings from Studies 1a and 1b would generalize to men who display BS behaviors. Researchers have identified actions such as offering help to carry heavy items or offering a coat to a woman who feels cold as behavioral forms of BS (e.g., Dardenne et al., 2007). We also aimed to extend our findings that BS attitudes do not appear to be insidiously harmful (because they *are* recognized as harmful by women), by including additional items designed to test whether women are aware of more specific harmful effects of BS behaviors, such as restriction of agency and competence.

Study 1a unexpectedly revealed that the mean attractiveness ratings of the BS potential romantic partner and BS work colleague did not differ, despite results showing that in the work context, perceived willingness to invest did not explain attractiveness after controlling for perceived warmth. This may have been because the BS attitude items used in our scenarios are more relevant to relationship contexts than work contexts, (as noted by other researchers: Hammond, Overall, & Cross, 2016; Hammond & Overall, 2013), so the wording may have led participants to think of the colleague as a potential mate. The current study addressed this limitation, by making the nature of participants' relationship with the targets more explicit. In addition, to keep the conditions as similar as possible, targets were

described as work colleagues in all conditions. Instead of measuring attractiveness in the work colleague condition, we measured preference for the BS vs. non-BS man, to ensure participants were not prompted to perceive the work colleague as if he was also a potential romantic partner.

## Method

**Participants.** Inputting the smallest interaction effect size from Study 1a ( $\eta_p^2 = .02$ ) into G\*Power determined a sample size of 100 at 80% power. Of 116 heterosexual females recruited through Prolific Academic, two failed attention check items, leaving data from 114 participants ( $M_{\text{age}} = 37.09$ ,  $SD_{\text{age}} = 12.18$ ) for analysis.

**Design and procedure.** The experiment had a 2 (behavior type: BS vs. non-BS) x 2 (relationship type: romantic vs. professional) mixed factorial design. In the romantic relationship condition, participants imagined that they were single and open to starting a romantic relationship with a work colleague, whereas in the professional relationship condition, participants imagined that they were not single, not looking for new romantic relationships, and only interested in having professional relationships with work colleagues. In both conditions, participants were presented with a description of two men, Robert and John (names counterbalanced), one displaying BS behaviors and the other non-BS behaviors. The scenario described BS behaviors like offering his coat, carrying heavy boxes, helping to use a computer program and opening doors for the participant, whereas the non-BS man was described as taking a more gender equal role (see Supplemental Materials for the scenarios). Participants then rated several items for both the BS and non-BS target on 7-point scales ranging from (1) *not at all* to (7) *very*.

## Measures.

**Perception of the targets.** Participants in both relationship type conditions indicated their *overall preference* for each target on items asking how much they would prefer to have

each man as a romantic partner/coworker and how happy they would be with each man as a romantic partner/coworker ( $r_{\text{BS-target}} = .91$ ;  $r_{\text{non-BS-target}} = .86$ ). We created a difference score measure by subtracting the preference for the non-BS man from the BS man to compare the preference for BS men over non-BS men in mating versus work contexts.

Participants responded to the same *patronizing and undermining* items as in Studies 1a-b ( $\alpha_{\text{BS-target}} = .91$ ;  $\alpha_{\text{non-BS-target}} = .92$ ). They also rated *perceived agency restricting manner* items asking how open each man would be to their ideas and views, how comfortable they would feel to disagree with each man, and how free they would feel to be assertive towards each man (all items reverse-coded;  $\alpha_{\text{BS-target}} = .79$ ;  $\alpha_{\text{non-BS-target}} = .71$ ).

*In the romantic relationship condition only*, participants rated the same *attractiveness* ( $r_{\text{BS-target}} = .81$ ;  $r_{\text{non-BS-target}} = .71$ ), *willingness to protect* ( $r_{\text{BS-target}} = .67$ ;  $r_{\text{non-BS-target}} = .69$ ), *provide* ( $r_{\text{BS-target}} = .71$ ;  $r_{\text{non-BS-target}} = .82$ ), and *commit* ( $\alpha$ 's = .91) items as in Studies 1a-b ('vulnerable' and 'selfish' were removed for scale reliability).

**Feminist beliefs.** Participants completed the same feminist beliefs scale as in Study 1a ( $\alpha = .80$ ).

## Results

Means and standard deviations are presented in Table 4 (bivariate correlations are shown in Table S2 in Supplemental Materials).

**Perception of the targets.** As expected, women's preference for the BS man over the non-BS man was greater in the romantic relationship condition ( $M_{\text{diff}} = 1.95$ ;  $SD_{\text{diff}} = 2.10$ ) than in the professional relationship condition ( $M_{\text{diff}} = .87$ ;  $SD_{\text{diff}} = 2.18$ ),  $F(1, 112) = 7.22$ ,  $p = .008$ ,  $\eta_p^2 = .06$ . This difference was largely due to the low ratings of the non-BS man in the romantic relationship condition (see Table 4).

Moreover, the BS romantic partner was perceived as more attractive,  $F(1, 55) = 35.55$ ,  $p < .001$ ,  $\eta_p^2 = .39$ , more willing to protect,  $F(1, 55) = 99.41$ ,  $p < .001$ ,  $\eta_p^2 = .64$ , provide,

$F(1, 55) = 146.99, p < .001, \eta_p^2 = .73$ , and commit,  $F(1, 55) = 34.17, p < .001, \eta_p^2 = .38$ , but also more patronizing and undermining,  $F(1, 112) = 12.88, p < .001, \eta_p^2 = .10$ , and agency restricting,  $F(1, 112) = 8.05, p = .005, \eta_p^2 = .07$ , than the non-BS romantic partner.

**Test of the BS as a mate-preference account for high and low feminists.** We conducted mediation analyses using the bootstrapping MEMORE approach for within-subjects designs (Montoya & Hayes, 2016) for low and high feminists, determined by median split. As in Study 1, first, we created a willingness to invest measure as a composite of willingness to protect, provide, and commit ( $\alpha$ 's = .92) to use as a mediator (factor analysis revealed a one-factor solution with loadings higher than .80).

As predicted, willingness to invest mediated the relationship between romantic partner's BS behaviors and perceived attractiveness (see Figures 3a and 3b). This trend applied to both low and high feminists, but, surprisingly, willingness to invest was a stronger mediator for high feminists ( $b = 2.44, SE = .46$ ) than low feminists ( $b = .79, SE = .32$ ) ( $z = 2.94, p = .003$ ). Although high feminists perceived the BS target as more patronizing and undermining, these were not significant mediators.

## Discussion

Results demonstrated that the findings from Studies 1a and 1b extended to men who displayed BS behaviors, in both mating and work conditions. The benevolence as a mate-preference hypothesis was also supported by the finding that the BS man was preferred over the non-BS man more strongly when evaluated as a potential mate than as a professional colleague. Furthermore, according to the mediation analysis, the attractiveness of the BS romantic partner was explained by willingness to invest for both high and low feminist women.

Study 2a supported Studies 1a and 1b findings by showing that men who display BS behaviors are seen as more patronizing and undermining and by showing that women

recognize more specific harmful effects: that BS men are more likely to restrict their agency. Importantly, despite recognizing these potentially harmful effects, women (even high feminists) still found a potential romantic partner who displayed BS behaviors more attractive than one who did not, because he was perceived to have the dispositions of a mate who is willing to invest.

### Study 2b

The aim of Study 2b was to replicate the findings obtained from Study 2a that investigated perceptions of men displaying BS vs. non-BS behaviors. Again, we wanted to ensure that the findings were not obtained because the non-BS behaviors seemed more negative in tone than the BS behaviors. Instead of presenting the non-BS man as failing to do a behavior (e.g., “John/Robert did not offer to show you how to use the program”), we presented him as acting in a way that was more obviously egalitarian (e.g., “John/Robert left you to get on with the work on the program, while he got on with his half of the work”), or we gave background details that showed that the non-BS man’s behavior was egalitarian (e.g., “you and John/Robert were both just wearing a shirt with a suit jacket on top”). In addition to measuring perceived warmth to control for it in our mediation analysis, we also measured and controlled for perceived interest in relationships.

### Method

**Participants.** Of 117 heterosexual females recruited through Prolific Academic, those who failed to pass attention check items were excluded, leaving data from 104 participants ( $M_{\text{age}} = 38.58$ ,  $SD_{\text{age}} = 9.96$ ) for analysis.

**Design, procedure and measures.** The design of the study was the same as in Study 2a, except there was only one relationship type condition: romantic relationship. As in Study 2a, participants rated their *overall preference* for each target ( $r_{\text{BS-target}} = .42$ ;  $r_{\text{non-BS-target}} = .82$ ), as well as *perceived attractiveness* ( $r_{\text{BS-target}} = .63$ ;  $r_{\text{non-BS-target}} = .44$ ), *willingness to protect*

( $\alpha$ 's = .72 for both targets), *provide* ( $\alpha_{\text{BS-target}} = .76$ ;  $\alpha_{\text{non-BS-target}} = .69$ ), *commit* ( $\alpha_{\text{BS-target}} = .92$ ;  $\alpha_{\text{non-BS-target}} = .94$ ), *patronizing and undermining manner* ( $\alpha_{\text{BS-target}} = .90$ ;  $\alpha_{\text{non-BS-target}} = .92$ ), *warmth* ( $\alpha_{\text{BS-target}} = .92$ ;  $\alpha_{\text{non-BS-target}} = .91$ ), and *relationship interest* of each target ( $r_{\text{BS-target}} = .74$ ;  $r_{\text{non-BS-target}} = .60$ ) (see Supplemental Materials for the slightly edited scenario).

## Results

Table 5 presents means and standard deviations (bivariate correlations are shown in Table S3 in Supplemental Materials).

**Perception of the targets.** As expected, the BS target was preferred over the non-BS target,  $F(1, 97) = 101.20$ ,  $p < .001$ ,  $\eta_p^2 = .51$ , and perceived as warmer,  $F(1, 97) = 90.25$ ,  $p < .001$ ,  $\eta_p^2 = .48$ , more interested in relationships,  $F(1, 152) = 50.16$ ,  $p < .001$ ,  $\eta_p^2 = .34$ , more attractive,  $F(1, 97) = 78.45$ ,  $p < .001$ ,  $\eta_p^2 = .45$ , willing to protect,  $F(1, 97) = 107.11$ ,  $p < .001$ ,  $\eta_p^2 = .53$ , *provide*,  $F(1, 97) = 304.88$ ,  $p < .001$ ,  $\eta_p^2 = .76$ , and *commit*,  $F(1, 97) = 81.61$ ,  $p < .001$ ,  $\eta_p^2 = .46$ , than the non-BS target. But the targets did not significantly differ on ratings of perceived patronizing and undermining manner,  $F(1, 97) = .94$ ,  $p = .34$ , although means were in the expected directions.

**Test of the BS as a mate-preference account.** We conducted mediation models using the bootstrapping MEMORE approach for within-subjects designs (Montoya & Hayes, 2016). As in previous studies, we created willingness to invest measures by a composite of willingness to protect, provide, and commit items ( $\alpha_{\text{BS-target}} = .91$ ;  $\alpha_{\text{non-BS-target}} = .92$ ) to use as a mediator (a factor analysis on the difference scores revealed a one-factor solution with loadings higher than .64). We included perceived patronizing and undermining manner, warmth and relationship interest as mediators in the analysis as well to examine whether perceived willingness to invest uniquely mediates the effect of BS behaviors on attractiveness when considered alongside these other variables.

Apart from willingness to invest, none of the indirect effects were significant (perceived warmth:  $b = -.15$ ,  $SE = .32$ ,  $CI$ s  $[-.98, .34]$ ; perceived relationship interest:  $b = -.09$ ,  $SE = .12$ ,  $CI$ s  $[-.32, .14]$ ; patronizing and undermining manner:  $b = -.02$ ,  $SE = .03$ ,  $CI$ s  $[-.15, .01]$ ). As expected, willingness to invest uniquely explained the effect of BS attitudes on attractiveness  $b = 2.29$ ,  $SE = .43$ ,  $CI$ s  $[1.62, 3.36]$ .

### **Discussion**

The findings from Study 2b were consistent with those of Study 2a, showing that the results were robust to changes to the wording of the behaviors that made the acts of the non-BS man more explicitly egalitarian. Furthermore, although the BS man was perceived as warmer and more interested in relationships than the non-BS man, these did not account for the former's greater attractiveness, which was explained by the BS man's perceived willingness to invest.

### **Study 3**

Although findings from Studies 1a-b and 2a-b were consistent with our benevolence as a mate-preference hypothesis, they could also be explained by the 'protection racket' hypothesis. This account claims that women embrace male BS attitudes for benefits such as protection, provision, and affection when they perceive themselves to be surrounded with men who hold HS attitudes (Glick, et al., 2000; 2004). If the protection racket hypothesis accounts for our findings, then participants' preference for the BS mate should increase to the extent that they perceive men in their environment to hold HS attitudes. Alternatively, if the evidence is explained by the benevolence as a mate-preference account, participants should find a BS man more attractive than a non-BS man because of his greater willingness to invest, regardless of perceived level of male HS. Thus, the aim of Study 3 was to rule out the protection-racket as an alternative explanation for our findings. As in Studies 1a and 1b, we

included perceived warmth of the BS mate to confirm that this characteristic was not sufficient to explain his greater attractiveness.

## Method

**Participants.** Inputting a small effect size ( $\eta_p^2 = .02$ ) into G\*Power determined a sample size of 131 at 90% power. Of 196 female students who participated, excluding those who reported being non-heterosexual or who failed attention check items left data from 153 participants ( $M_{\text{age}} = 19.37$ ,  $SD_{\text{age}} = 2.77$ ) for analysis.

**Design and procedure.** Participants imagined that they were single and interested in starting a relationship, and they knew two single men, John and Robert, who had both expressed an interest in them. They were presented with profiles of both men, one holding BS attitudes and the other non-BS attitudes. These profiles were the same as in Study 1a but emphasized that both men were keen on having a serious relationship with the right person, to ensure that the BS man's greater attractiveness was not because he was perceived as having more interest in a relationship. Participants then rated a number of items on 7-point scales ranging from (1) *not at all* to (7) *very*.

## Measures.

**Perception of the targets.** Participants rated *perceived attractiveness* ( $r_{\text{BS-target}} = .69$ ;  $r_{\text{non-BS-target}} = .71$ ), *willingness to protect* ( $r_{\text{BS-target}} = .72$ ;  $r_{\text{non-BS-target}} = .70$ ), *provide* ( $r_{\text{BS-target}} = .65$ ;  $r_{\text{non-BS-target}} = .72$ ) and *commit* ( $\alpha_{\text{BS-target}} = .82$ ;  $\alpha_{\text{non-BS-target}} = .81$ ), *patronizing and undermining manner* ( $\alpha_{\text{BS-target}} = .89$ ;  $\alpha_{\text{non-BS-target}} = .90$ ), *agency restricting manner* ( $\alpha$ 's = .78), and *warmth* ( $\alpha_{\text{BS-target}} = .84$ ;  $\alpha_{\text{non-BS-target}} = .83$ ) of the BS and non-BS targets with the same items as in Study 2a.

**Perceived environmental HS.** Participants indicated on 6-point scales how much they thought most men in their environment (e.g. men who they are likely to encounter in their

daily lives) would agree or disagree with the items from the HS scale (Glick & Fiske, 1996;  $\alpha = .81$ ).

## Results

Table 6 presents means and standard deviations (bivariate correlations are shown in Table S4 in Supplemental Materials).

**Perception of the targets.** As expected, the BS romantic partner was perceived as warmer,  $F(1, 152) = 62.92, p < .001, \eta_p^2 = .29$ , more attractive,  $F(1, 152) = 6.55, p = .01, \eta_p^2 = .04$ , willing to protect,  $F(1, 152) = 149.41, p < .001, \eta_p^2 = .50$ , provide,  $F(1, 152) = 204.67, p < .001, \eta_p^2 = .57$ , commit,  $F(1, 152) = 46.92, p < .001, \eta_p^2 = .24$ , but also more patronizing and undermining,  $F(1, 152) = 61.50, p < .001, \eta_p^2 = .29$ , and agency restricting,  $F(1, 152) = 8.62, p = .004, \eta_p^2 = .05$ , than the non-BS romantic partner.

**Test of the BS as a mate-preference account.** We conducted mediation models using the bootstrapping MEMORE approach for within-subjects designs (Montoya & Hayes, 2016). As in Study 2, we created willingness to invest measures by a composite of willingness to protect, provide, and commit items ( $\alpha_{\text{BS-target}} = .88; \alpha_{\text{non-BS-target}} = .90$ ) to use as a mediator (a factor analysis on the difference scores revealed a one-factor solution with loadings higher than .62).

As seen in Figure 4, indirect effects for all mediators were significant. Importantly, willingness to invest explained the effect of BS attitudes on attractiveness, even when warmth was included as a mediator. Examination of the pairwise contrasts of the indirect effects showed that the specific indirect effect through willingness to invest was larger than the specific indirect effect through warmth with a bias-corrected CI of .16 to 1.24 (Preacher & Hayes, 2008), meaning that willingness to invest explained the effect of a potential romantic partner's BS attitudes on his attractiveness more strongly than did his warmth.

**Moderating effect of perceived environmental HS.** The pHS scores were approximately normally distributed ( $M = 3.86$ ,  $SD = .73$ ,  $Med = 3.82$ ). To examine the unique contribution of pHS to perceived attractiveness of the BS romantic partner over the non-BS one (difference score), we tested a hierarchical regression model where we entered pHS (standardized), and willingness to invest of the BS partner over the non-BS partner (difference score) in Step 1, and the interaction term in Step 2. As seen in Table 7, pHS did not significantly contribute to the variance in perceived attractiveness, but, as expected, willingness to invest did explain perceived attractiveness, even after pHS was accounted for. The interaction of pHS and willingness to invest was also non-significant meaning that the relationship between perceived willingness to invest and attractiveness was not affected by high versus low pHS.

## **Discussion**

Findings from Study 3 supported the benevolence as a mate-preference hypothesis by ruling out the protection racket hypothesis as an alternative explanation for our findings. Specifically, women's perceived level of male HS did not predict the attractiveness of the BS romantic partner, and neither did it moderate the relationship between perceived willingness to invest and attractiveness. This suggests that women are not attracted to BS men because they perceive them as offering a solution to the threat of HS (cf. Glick & Fiske, 2001).

One reason for this could be that women did not find the HS items very hostile or threatening (e.g., "women seek to gain power by getting control over men"), at least not to the extent that they desire protection from men who agree with these items. It may still be possible that in highly hostile environments (e.g. where women perceive threats from rape or violence), the appeal of a BS romantic partner who signals to women that he is willing to protect and invest could increase (see Phelan, Sanchez & Broccoli, 2009). Although Study 3 ruled out the protection racket as an alternative explanation for our findings, it did not rule

out the protection racket hypothesis altogether. A full test of the protection racket hypothesis would require different measures of perceived hostility, using different samples from highly hostile environments, and would require asking women, not just whether men in their environment endorse HS, but how threatening those men are and whether and how they feel they could be protected by them.

### **General Discussion**

Drawing on evolutionary and sociocultural perspectives on human mate preferences, we offered a novel explanation for why women prefer BS men, despite its potentially harmful effects. Specifically, we proposed that attitudes and behaviors typically defined as BS reflect women's preferences for mates who are *willing to invest* by being protective, providing, and committed. This *benevolence as a mate-preference* hypothesis suggests that women may prefer BS men, despite knowing that they can be undermining, because the desirable aspects of a man's benevolent attitudes and behaviors outweigh the potential downsides.

Studies 1a and 1b showed that women rated a man with BS attitudes as more attractive than one with non-BS attitudes (in accordance with Bohner et al., 2010), despite women rating the same BS man as having more patronizing and undermining manner. Mediation analyses indicated that even after controlling for perceived warmth, perceived willingness to invest explained the effect of BS attitudes on attractiveness when the man was a potential romantic partner, but not when he was a work colleague. Studies 2a and 2b demonstrated that effects generalized to evaluations of men displaying BS behaviors. Moreover, Studies 1a and 2a showed that these findings applied to both high and low feminist women. Finally, Study 3 ruled out the protection racket hypothesis as an alternative explanation by showing that the degree of male HS that women perceived in their environment did not predict attractiveness of the romantic partner with BS attitudes.

### **Theoretical Contributions**

The present research offers two major contributions to the literature on benevolent sexism. First, we conducted the first direct empirical test of a central assumption of previous accounts of the appeal of BS – that it is an insidiously harmful ideology because women approve of men’s BS without realizing that BS attitudes and behaviors can be harmful and undermining (Barreto & Ellemers, 2005; Glick & Fiske, 1996, 2001). We consistently found that women do rate BS men as more likely to be patronizing and undermining towards them, as well as more restricting of their agency. This contradicts previous claims that women are unwittingly *allured* into accepting men’s BS because they are unaware of the consequences (e.g., Hammond, Sibley, & Overall, 2014; Hammond et al., 2016), or that the true nature of BS is obscure to women because it acts like “a wolf in sheep’s clothing” (Goh & Hall, 2015, p. 259). Women find BS men attractive, not because they are ignorant of the harmful effects, but *despite* being aware of them. This suggests that the desirable aspects of BS attitudes and behaviors are sufficient to overcome the perceived negative effects.

The second major contribution of this paper is our proposal that women approve of BS attitudes and behaviors because they are taken as cues that a man is *willing to invest* by being protective, providing, and committed. Previous researchers have assumed that women’s preferences for BS reflects a passive “cultural transmission of sexism to women, as opposed to motivational origins” (Glick & Fiske, 1996, p. 507), but we suggest that preference for these attributes has motivational origins in women’s mate preferences.

Furthermore, the finding that high feminist women, and not only low feminist women, rated a BS potential romantic partner as more attractive despite being more aware of the detrimental effects, suggests that the attraction may be a mate preference for women in general, and not just for women who endorse traditional gender roles. This might be surprising from a sociocultural perspective on mate preferences, because women who strongly endorse gender role equality (high feminists) and also recognize that BS men can be

harmful to gender role equality, would not be expected to find BS men attractive, if attraction is based on an assessment of whether a BS man helps her to achieve important life goals (Zentner & Eagly, 2015). In contrast, an evolutionary perspective on mate preferences would expect all women to be predisposed to attraction to men displaying cues (BS attitudes or behaviors) of willingness to invest. This suggests that, similarly to suggestions of species-typical female preferences for mates who are able to invest (via cues such as status and ambition, Buss, 1989), women may also have a species-typical preference for mates who are willing to invest (assessed via cues such as benevolent attitudes and behaviors), as proposed by Trivers (1972) and others. If so, then these preferences may operate irrespective of explicit beliefs in gender equality.

Nevertheless, our results could also be interpreted as consistent with the sociocultural framework of mate preferences, particularly given that unequal gender division of labor still exists in industrial nations such as the UK. If women's acquisition of income and resources is lower than men's (even if largely due to their own career and lifestyle goals, cf. Hakim, 2002), women may still continue to benefit from choosing a mate who is willing to adopt provider and protector roles (Eastwick et al., 2006; Eagly & Wood, 1999; Zentner & Eagly, 2015). This could explain why, despite having high feminist beliefs, women still prefer a BS mate who shows signs of willingness to protect, provide, and commit. Regardless, our aim was not to establish which of these mate preferences perspectives – evolved or sociocultural – is most credible. That would require an approach like Eagly and Wood's (1999) cross-cultural study, to examine whether the importance placed on a potential mate's willingness to invest decreases as the level of gender equality in the division of labor increases.

Although sometimes treated as competing perspectives (e.g., Eagly & Wood, 1999; Wood & Eagly, 2002), several recent accounts have argued that social role theory and evolutionary perspectives should be integrated to produce coherent explanations of human

sex differences (Cross & Campbell, 2017; Eagly & Wood, 2013; Gangestad, Haselton, & Buss, 2006). Moreover, this aim is in line with perspectives that reject fallacious nature-versus-nurture dichotomies and seek instead to explain how evolved dispositions interact with socio-cultural influences to shape human psychology (e.g., Baumard & Boyer, 2013; Kenrick, Li & Butner, 2003; Mesoudi, 2009; Norenzayan, Schaller, & Heine, 2006; Sperber & Hirschfeld, 2004). Accordingly, mate preferences for traits relating to willingness to invest likely develop from an interaction between evolved predispositions and culturally variable social role expectations. The existence of an evolved predisposition to prefer benevolent mates may explain why women (even high-feminist women) consistently prefer BS men, but cultural conditions could nonetheless explain much variance in the strength of these preferences. For example, women living in an environment in which their social roles are highly restricted might have stronger preferences for men who show cues of being willing to invest. Similarly, although evolution might have endowed all women with the disposition to prefer investing males, the specific behaviors that cue willingness to invest (e.g. opening doors or sharing meat) are likely to be learned and culture specific. Interactions between evolved dispositions and social conditions might also explain cultural trends. For example, over generations, women's dispositions to prefer men with BS attitudes and behaviors, combined with men's efforts to display these behaviors, may become culturally elaborated as norms such as chivalry, and as culturally accepted social roles such as domestic versus breadwinner roles.

### **Limitations, Implications and Future Research Directions**

Although the current research makes important contributions to our understanding of the appeal of BS, it is not without limitations. Previous research shows that women infer that men with BS attitudes may also hold HS attitudes. For instance, Bohner et al. (2010) found that holding both BS and HS attitudes is perceived as more typical of men than holding only

BS attitudes, suggesting that women may be aware of a link between BS and HS. Thus, it could be that women rated BS men as undermining and patronizing partly because they inferred that these men may also hold HS attitudes. However, even if this is the case, it does not undermine our key finding that women do recognize BS as potentially undermining and patronizing, whether because of those attitudes in themselves, or because they expect them to coexist with other more hostile attitudes. Alternatively, women may not have inferred anything about HS, given that we did not provide any cues directly relevant to HS, but the possibility may deserve future research attention.

Previous researchers have claimed that men's BS may reflect motives to oppress women as a group in order to maintain male superiority in the social hierarchy (e.g., Glick & Fiske, 1996). According to these authors, men express BS towards women to reward them for conforming to traditional gender roles such as homemakers and mothers (e.g., Glick & Fiske, 1996, 2001). However, our mate-preference perspective accords with the suggestion by Bohner et al. (2010) that men's BS may often be motivated by mating concerns, because if women favor men who display benevolence, there will be considerable advantages for men who behave in this way. Nevertheless, other cases of BS may be motivated by a desire to undermine women's competence and agency, especially in political and competitive contexts. For example, one journalist's comment on the Women's March following President Trump's inauguration, "Ladies I love you. But if you let the nasty women win, then you lose" may be an example of a sexist, status quo supporting attitude, disguised as benevolence (Morgan, 2017). Future research should examine men's motives for BS and how these motives interact with attitudes towards gender equality. For example, BS men could hold egalitarian beliefs yet unwittingly and unintentionally undermine women, or they might be aware of the negative effects of their attitudes but have little concern about the consequences. Similarly, our studies did not investigate the reasons behind women's inferences that BS men are likely

to be patronizing and undermining. Women might perceive that BS men lack egalitarian beliefs, or they may expect them to be unintentionally undermining despite having benevolent motives.

Our findings also have important implications for women's well-being, given that fulfillment of mate preferences is an important source of happiness (Acevedo & Aron, 2009). Research into mate selection based on personality characteristics suggests that women who perceive themselves as having kind and committed partners have higher marital and sexual satisfaction (Botwin, Buss, & Shackelford, 1997). This suggests that it might not always be desirable to discourage women from preferring mates with benevolent gender attitudes (see e.g., Becker & Swim, 2011; Viki et al., 2003) if these are beneficial for well-being. A more nuanced understanding of male benevolence and female mate preferences could help to identify means to decrease the negative effects of BS, while at the same time helping women (and men) understand how to have fulfilling relationships that enhance well-being.

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## Footnotes

<sup>1</sup> Although sometimes treated as such, these perspectives are not mutually exclusive because women's mate preferences likely develop from an interaction between biologically evolved predispositions and culturally variable social role expectations. We return to the possibility of an integrated explanation for women's mate preferences in the General Discussion.

<sup>2</sup> Of the 97 participants who were excluded from data analysis, 37 reported being non-heterosexual and 60 were inattentive.

Table 1

*Study 1a: Correlations between the dependent variables*

	1.	2.	3.	4.	5.	6.	7.
1. Perceived warmth	-	.66**	.74**	.77**	.62**	.11	.15
2. Perceived attractiveness		-	.72**	.63**	.54**	-.10	.02
3. Perceived willingness to protect			-	.79**	.67**	-.01	.13
4. Perceived willingness to provide				-	.70**	.05	.10
5. Perceived willingness to commit					-	-.01	.14
6. Perceived patronizing and undermining manner						-	.04
7. Feminist beliefs							-

*Note.*  $N = 233$ ; \* =  $p < .05$ , \*\* =  $p < .01$

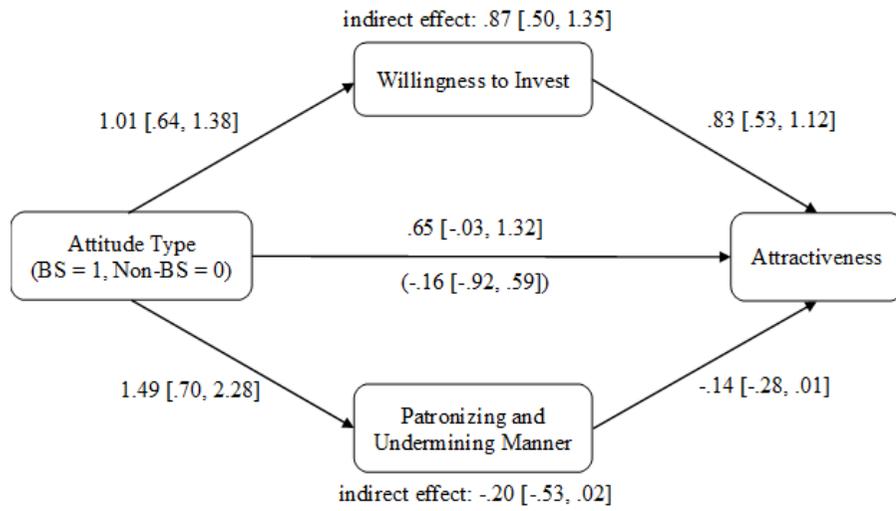
Table 2

*Study 1a: Mean scores of dependent variables by attitude type and relationship type*

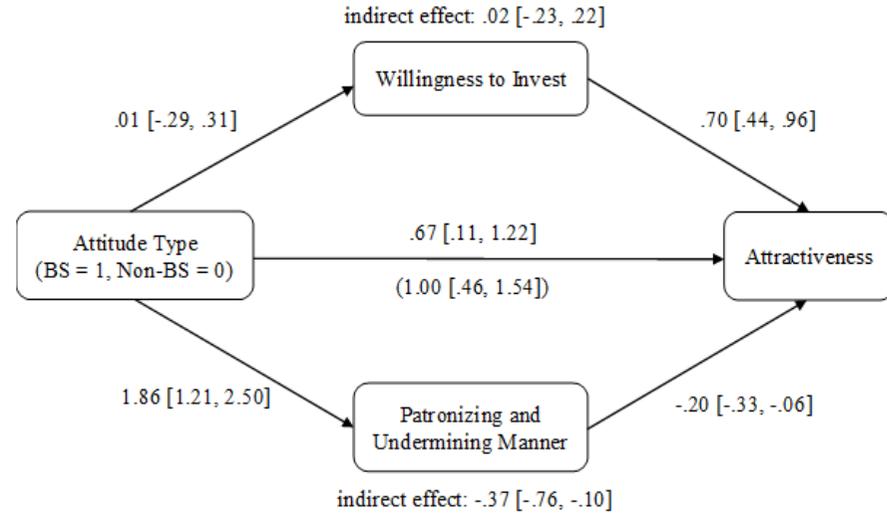
Dependent Measures	BS Attitudes		Non-BS Attitudes	
	Romantic Partner	Work Colleague	Romantic Partner	Work Colleague
	<i>M</i> ( <i>SD</i> )			
Perceived warmth	6.22 (.85)	5.92 (1.05)	4.19 (1.65)	4.17 (1.49)
Perceived attractiveness	5.09 (1.21)	4.95 (1.41)	3.41 (1.71)	3.21 (1.70)
Perceived willingness to protect	5.65 (.93)	5.24 (1.07)	3.56 (1.36)	4.02 (1.33)
Perceived willingness to provide	5.93 (.76)	5.48 (1.02)	3.72 (1.34)	4.29 (1.11)
Perceived willingness to commit	5.98 (.93)	4.99 (.86)	3.86 (1.62)	4.75 (1.21)
Perceived patronizing and undermining manner	4.21 (1.54)	4.33 (1.58)	2.91 (1.55)	2.97 (1.50)

*Note.*  $N = 233$ ; BS romantic partner condition:  $n = 55$ ; BS work colleague condition:  $n = 61$ ; non-BS romantic partner condition:  $n = 59$ ; non-BS work colleague condition:  $n = 58$ . Standard deviation is indicated in parentheses.

**Panel A**



**Panel B**



*Figure 1.* Study 1a: Multiple mediation model of the effect of the BS attitudes (vs. non-BS attitudes) on perceived attractiveness of the romantic partner (Panel A) and the work colleague (Panel B), via perceived willingness to invest and perceived patronizing and undermining manner, after controlling for perceived warmth. Direct effect of BS attitudes (vs. non-BS attitudes) on perceived attractiveness when controlling for the mediators is in parenthesis. Values are unstandardized regression coefficients.

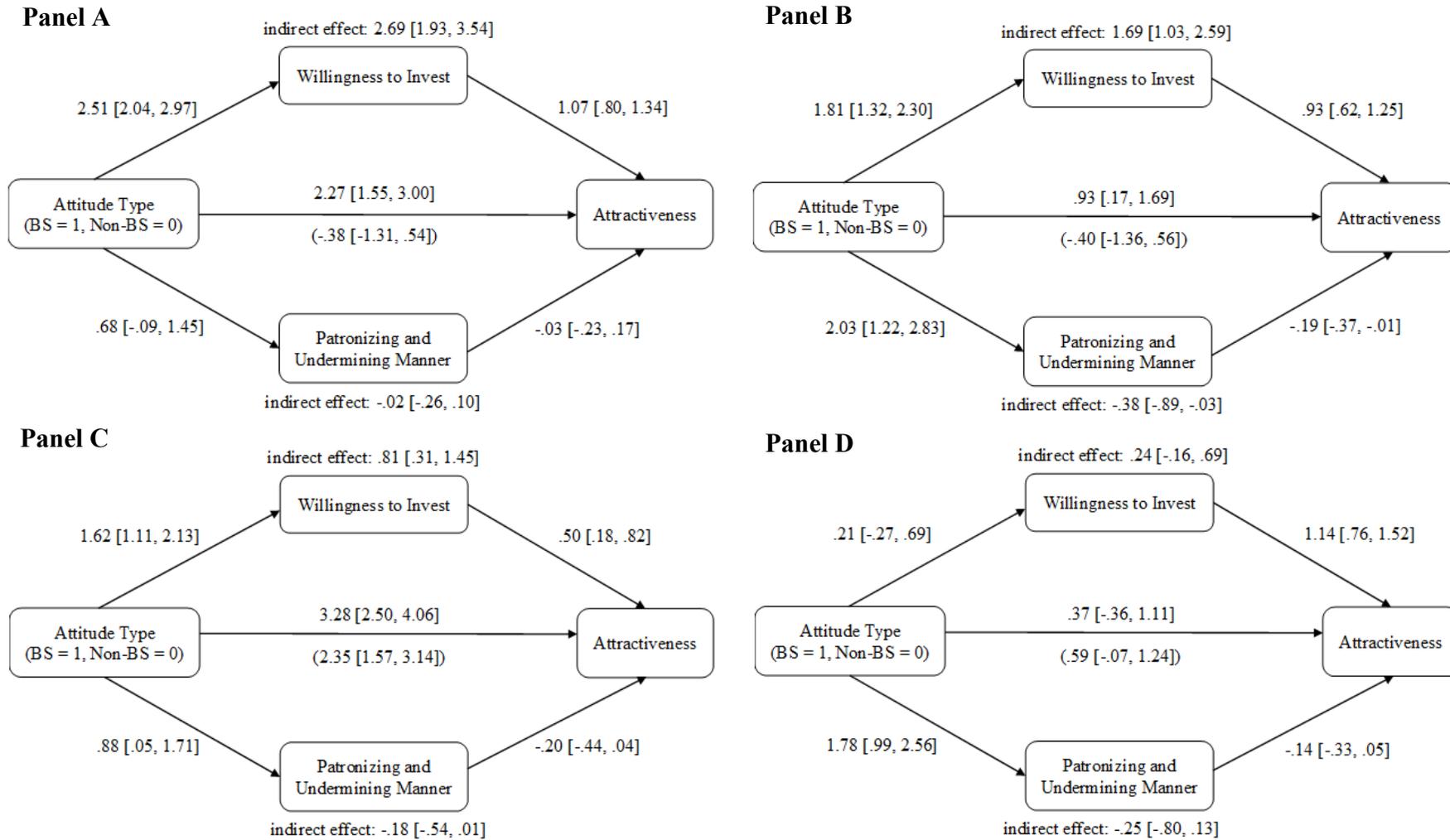


Figure 2. Study 1a: Multiple mediation model of the effect of the BS attitudes (vs. non-BS attitudes) on perceived attractiveness of the target, via perceived willingness of target to invest and perceived patronizing and undermining manner in the romantic partner condition (Panel A for women with low feminist beliefs, Panel B for women with high feminist beliefs) and work colleague condition (Panel C for women with low feminist beliefs, Panel D for women with high feminist beliefs). Direct effect of BS attitudes (vs. non-BS attitudes) on perceived attractiveness when controlling for the mediators is in parenthesis. Values are unstandardized regression coefficients.

Table 3

*Study 1b: Mean scores of dependent variables by attitude type*

	Attitude Type	
	BS	Non-BS
Ratings of male target	<i>M</i> ( <i>SD</i> )	<i>M</i> ( <i>SD</i> )
Perceived warmth	5.32 (1.43)	4.43 (1.29)
Perceived relationship interest	6.45 (1.09)	4.42 (1.67)
Perceived attractiveness	4.51 (1.84)	3.93 (1.60)
Perceived willingness to protect	5.32 (1.55)	3.81 (1.42)
Perceived willingness to provide	5.48 (1.36)	3.66 (1.26)
Perceived willingness to commit	5.72 (1.50)	4.18 (1.64)
Perceived patronizing and undermining manner	4.53 (1.59)	3.38 (1.52)

*Note.*  $N = 178$ . Standard deviation is indicated in parentheses.

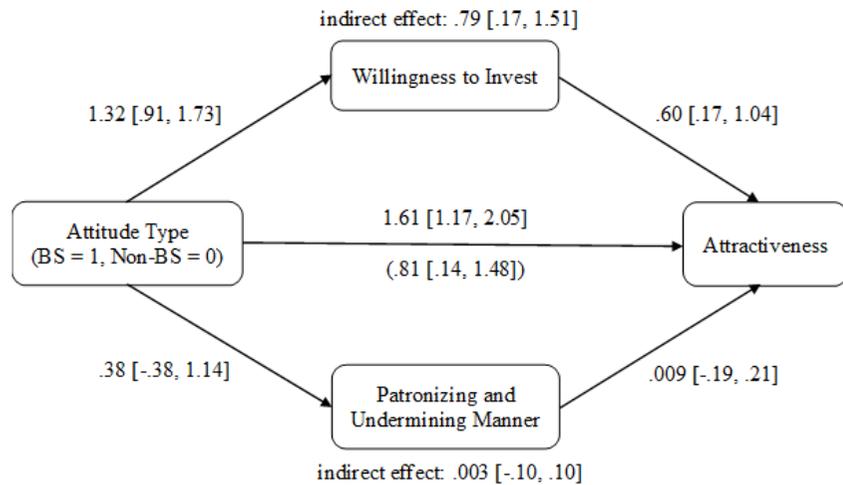
Table 4

*Study 2a: Mean scores of dependent variables by behavior type and relationship type*

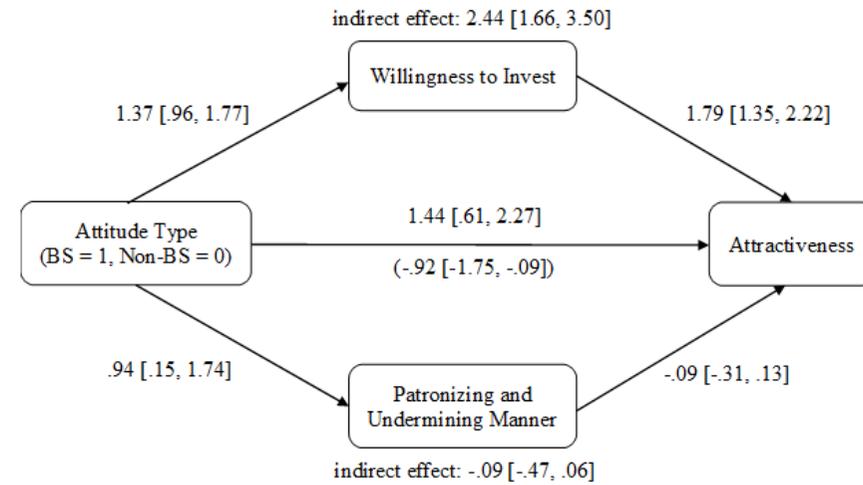
Ratings of male target	BS Behaviors		Non-BS Behaviors	
	Romantic Relationship	Professional Relationship	Romantic Relationship	Professional Relationship
	<i>M</i> ( <i>SD</i> )	<i>M</i> ( <i>SD</i> )	<i>M</i> ( <i>SD</i> )	<i>M</i> ( <i>SD</i> )
Perceived attractiveness	5.46 (1.20)	-	3.95 (1.27)	-
Perceived willingness to protect	5.82 (1.13)	-	3.40 (1.18)	-
Perceived willingness to provide	6.28 (.91)	-	3.38 (1.29)	-
Perceived willingness to commit	5.55 (1.07)	-	4.08 (1.23)	-
Overall preference ratings	5.67 (1.28)	5.70 (1.30)	3.72 (1.22)	4.83 (1.32)
Perceived patronizing and undermining manner	3.78 (1.56)	3.59 (1.51)	3.07 (1.27)	2.89 (1.52)
Perceived agency restricting manner	3.26 (1.34)	3.17 (1.24)	2.67 (1.06)	2.94 (1.01)

*Note.*  $N = 114$ ; romantic relationship condition:  $n = 56$ ; professional relationship condition:  $n = 58$ . Standard deviation is indicated in parentheses.

**Panel A**



**Panel B**



*Figure 3.* Study 2a: Multiple mediation model of the effect of the BS behaviors (vs. non-BS behaviors) on perceived attractiveness of the romantic partner, via perceived willingness to invest and perceived patronizing and undermining manner for women with low feminist beliefs (Panel A) and high feminist beliefs (Panel B). Direct effect of BS behaviors (vs. non-BS behaviors) on perceived attractiveness when controlling for the mediators is in parenthesis. Values are unstandardized regression coefficients.

Table 5

*Study 2b: Mean scores of dependent variables by behavior type*

	Behavior Type	
	BS	Non-BS
Ratings of male target	<i>M</i> ( <i>SD</i> )	<i>M</i> ( <i>SD</i> )
Perceived warmth	5.75 (1.07)	3.92 (1.35)
Perceived relationship interest	5.88 (1.06)	5.07 (1.27)
Preference as a romantic partner	5.92 (1.15)	3.57 (1.47)
Perceived attractiveness	5.80 (1.03)	4.00 (1.35)
Perceived willingness to protect	5.72 (1.07)	3.62 (1.26)
Perceived willingness to provide	6.11 (.83)	3.05 (1.49)
Perceived willingness to commit	5.77 (1.10)	3.86 (1.42)
Perceived patronizing and undermining manner	3.45 (1.52)	3.26 (1.54)

*Note.* *N* = 104. Standard deviation is indicated in parentheses.

Table 6

*Study 3: Mean scores of dependent variables by attitude type*

	Attitude Type	
	BS	Non-BS
Ratings of male target	<i>M</i> ( <i>SD</i> )	<i>M</i> ( <i>SD</i> )
Perceived warmth	5.43 (.97)	4.49 (1.03)
Perceived attractiveness	5.06 (1.31)	4.60 (1.32)
Perceived willingness to protect	5.87 (1.00)	4.07 (1.21)
Perceived willingness to provide	6.08 (.88)	4.16 (1.21)
Perceived willingness to commit	5.52 (1.00)	4.62 (1.08)
Perceived patronizing and undermining manner	4.85 (1.35)	3.43 (1.28)
Perceived agency restricting manner	3.25 (1.37)	2.76 (1.19)

*Note.*  $N = 153$ . Standard deviation is indicated in parentheses.

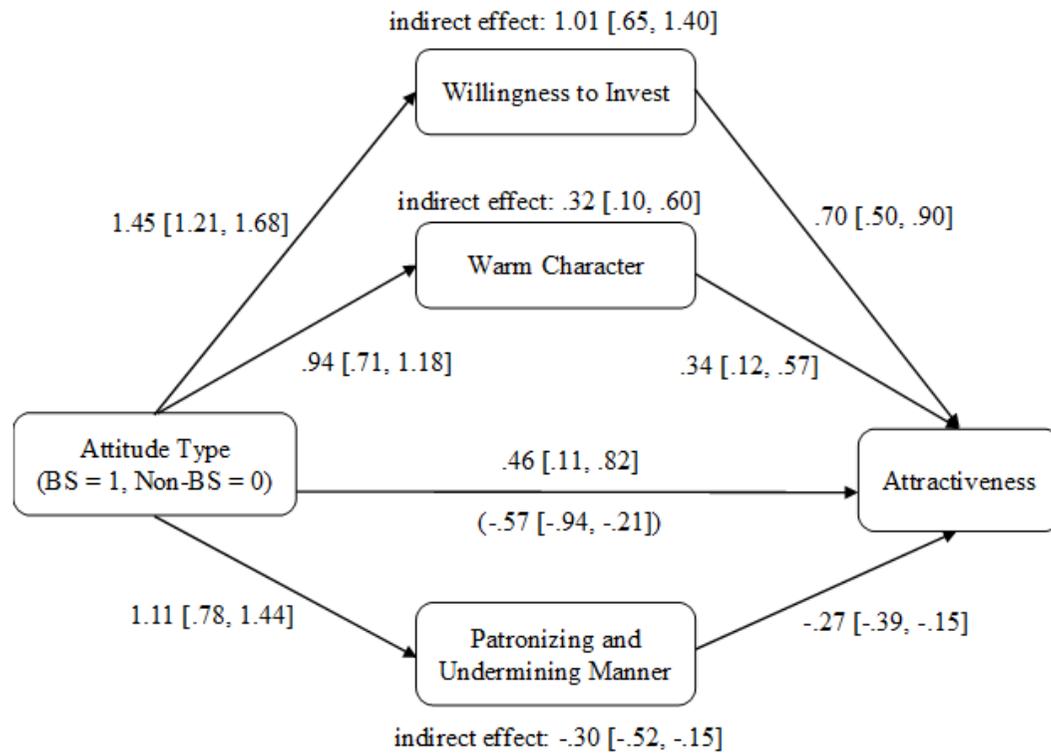


Figure 4. Study 3: Multiple mediation model of the effect of the BS attitudes (vs. non-BS attitudes) on perceived attractiveness of the romantic partner, via perceived willingness of to invest, perceived warmth, and perceived patronizing and undermining manner. Direct effect of BS attitudes (vs. non-BS attitudes) on perceived attractiveness when controlling for the mediators is in parenthesis. Values are unstandardized regression coefficients.

Table 7.

*Study 3: Results of hierarchical regression analyses on perceived attractiveness of the BS romantic partner over the non-BS romantic partner*

Steps	Predictor variables	<i>B</i>	<i>S.E.</i>	$\beta$	<i>t</i>	<i>p</i>	<i>r<sub>sp</sub></i>	<i>R</i> <sup>2</sup> change
1	Intercept	-1.16	.17	-	- 6.97	< .001	-	.58
	Perceived environmental HS (pHS)	.14	.12	.08	1.68	.25	.06	
	Perceived willingness to invest (Inv) <sup>a</sup>	1.19	.08	.75	13.79	< .001	.73	
2	Intercept	-1.15	.17	-	- 6.93	< .001	-	.001
	HS	.21	.16	.09	1.33	.19	.07	
	Inv <sup>a</sup>	1.13	.08	.75	13.70	< .001	.73	
	pHS*Inv	-.05	.08	-.05	-.67	.50	-.04	

*Note.* *N* = 153. <sup>a</sup> Difference scores created by subtracting the scores on the non-BS target from the BS target.

Higher scores mean a higher preference for the BS man over the non-BS man.