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What Hostile and Benevolent Sexism Communicate about Men's and Women's Warmth

and Competence

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Abstract

Ambivalent sexism theory (Glick & Fiske, 1996) distinguishes between two inter-related forms of sexism: Hostile and benevolent. Although this theory motivated a large body of work examining how endorsement of these views impacts on social interactions and women's performance, no research has yet examined what these forms of sexism are seen to *communicate* about men and women. We report three studies examining the image that benevolent and hostile sexist messages are seen to *describe* (Study 1 and 2) and *prescribe* for men and women (Study 3). Results show that *both* benevolent and hostile sexism were seen to convey that women *are* and *should be* less competent than men. Additionally, benevolent sexism was seen as describing and prescribing women to be warmer than did hostile sexism. Across all studies men and women agreed about what the messages communicate about men and women. We discuss the implications of these results for the understanding of how stereotypical beliefs are perpetuated.

Keywords: Ambivalent sexism, benevolent sexism, hostile sexism, stereotypes

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What Hostile and Benevolent Sexism Communicate about Men's and Women's Warmth
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Sexism takes multiple forms and is expressed in a variety of ways (for an overview, see
Barreto & Ellemers, 2013). One important distinction that has motivated 20 years of
research is between benevolent and hostile sexism (Glick & Fiske, 1996, 2001). Past
research in this area has focused on identifying the structure of sexist beliefs and the
implications of the endorsement of these beliefs for social interactions, legitimisation of
gender inequality, and women's performance (e.g., Barreto & Ellemers 2005; Barreto et al.
2010; Dardenne, Dumont, & Bollier 2007; Ellemers & Barreto 2009; Moya & Glick 2007;
Rudman & Heppen 2003; Zaikman & Marks 2014). Extending existing insights on these
forms of sexism, our current focus is on examining how these are *interpreted*. That is, we
aim to assess what benevolent and hostile sexism communicate about how men and
women are *likely* to be, as well as what they *should* be. Understanding how these beliefs
are interpreted, and specifically what they are seen to communicate about how men and
women *are* and *should be*, provides important insights that further our understanding of
how gender stereotypes are perpetuated. Indeed, the perpetuation of gender stereotypes and
prejudices stems in part from what they are seen to communicate, and the extent to which
this is recognised as problematic.

Benevolent and Hostile Sexism

Ambivalent sexism theory (Glick & Fiske, 1996) proposes that benevolent and
hostile sexism both derive from the same ideal of women as primary caretakers. They
express this ideal, however, in different ways. Benevolent sexism is positive in tone and
generally consists of the exaltation of women who conform to traditional gender roles (e.g.,
mothers; e.g., Glick et al. 1997). By contrast, hostile sexism has a negative tone and
consists of antagonism towards women who challenge the status quo by behaving in non-

traditional ways (e.g., career women). While, across nations and cultures, hostile sexism consistently emerges as unidimensional, benevolent sexism comprises three components: Heterosexual intimacy, complementary gender differentiation, and protective paternalism (Glick et al., 2000). Heterosexual intimacy consists of the view of women as necessary romantic partners for men, whilst complementary gender differentiation emphasises the belief that women have unique desirable traits, such as purity and enhanced moral sensibility. In turn, protective paternalism consists of the belief that, as superior and more powerful beings, men have the responsibility to provide for and to protect women.

Despite their different tones, both benevolent and hostile sexism have clear negative consequences for women. For example, the more individuals endorse either form of sexism, the more they endorse other sexist beliefs (Glick & Fiske, 1996, 2001; Masser & Abrams, 1999). In addition, both types of sexist views have been associated with sexual harassment (Fiske & Glick, 1995; Pryor, Giedd, & Williams, 1995), blaming of rape victims (Viki & Abrams, 2002), and blaming survivors of domestic violence (Glick, Sakalli-Ugurlu, Ferreira, & Souza, 2002).

Overall, ambivalent sexism theory proposes that both benevolent and hostile sexism beliefs help maintain gender roles (Glick & Fiske, 1996, 2001). This happens through a system of rewards and punishments, specifically, through positive attitudes and behaviours towards women who comply with traditional gender stereotypes (benevolent sexism) and negative attitudes and behaviours towards women who do not (hostile sexism). In this paper we expand this view by arguing that individuals who endorse benevolent and hostile sexist beliefs contribute to the maintenance of gender stereotypes because when voicing these beliefs they directly communicate expectations and prescriptions about men and women that are in line with those stereotypes. That is, gender stereotypes are communicated and reinforced when sexist beliefs are expressed.

What do Benevolent and Hostile Sexism Communicate?

Although ambivalent sexism theory provides a framework for understanding how sexist beliefs emerge from gender roles and gender stereotypes (for a recent review, see Glick & Fiske, 2011), it does not theorise what sexist beliefs communicate. We address this gap by investigating how hostile and benevolent sexism are interpreted—specifically, what they are seen to communicate about men's and women's competence and warmth.

Although ambivalent sexism theory does not make assertions about how individuals might interpret the expression of hostile or benevolent sexism, research in this area does provide evidence relevant to our current analysis. First, men and women tend to be more accepting of benevolent sexism than of hostile sexism, finding benevolent statements less sexist, more flattering of women, and more justified (Barreto & Ellemers, 2005b; Bohner, Ahlborn, & Steiner, 2010; Jost & Kay, 2005; Kilianski & Rudman, 1998; Moya et al., 2007; Swim, Mallett, Russo-Devosa, & Stangor, 2005). Additionally, people express less displeasure when they encounter benevolent than hostile sexism (Barreto & Ellemers, 2005a; Becker & Wright, 2011). In line with ambivalent sexism theory's proposition that benevolent sexism has a more positive tone, this suggests that men and women detect some differences between these two forms of sexism, perceiving benevolent sexism more positively than hostile sexism.

However, precisely what images of men and women these types of sexism communicate is still unclear. In line with the centrality of warmth and competence both within Ambivalent Sexism Theory (Glick & Fiske, 1996) and the Stereotype Content Model (Fiske et al. 2002; for a review, see Cuddy, Fiske, & Glick 2008), we examine this issue by investigating what benevolent and hostile sexism are seen to communicate regarding how warm and how competent men and women are or should be. With regard to warmth, we propose that benevolent is perceived to communicate a view of women as

particularly warm, both relative to men and relative to how hostile sexism depicts women, which might explain why benevolent sexism is typically accepted. Indeed, benevolent sexism primarily describes traditional women as warm and caring, whereas hostile sexism expresses hostility towards non-traditional women, who are characterised as aggressive or overly assertive (Glick et al., 1997). Further support for this argument can be found by having a close inspection to the specific items of the Ambivalent Sexism Inventory (ASI; Glick & Fiske, 1996). For example, benevolent sexism items tap directly into the notion that women are warmer relative to men (e.g., "Women, compared to men, tend to have a superior moral sensibility"). In contrast, hostile sexism items may suggest that women can be cold (e.g., "Women are too easily offend") or deceiving and manipulative (e.g., "Once a woman gets a man to commit to her, she usually tries to put him on a tight leash"). As such, these two forms of sexism are likely to be seen to communicate drastically different views of women along the warmth dimension, with benevolent sexism portraying women as warmer than men (Hypothesis 1) and also portraying women as warmer than hostile sexism (Hypothesis 2).

Whilst we expected both forms of sexism to communicate different views about men's and women's warmth, we expected benevolent and hostile sexism to portray women as similarly incompetent, relative to men. Although benevolent sexist messages stress women's morality and sociability, and do not make direct statements about competence, research shows that when communicators omit information on a particular dimension (warmth or competence), perceivers infer that targets lack the omitted characteristic (Kervyn, Bergsieker, & Fiske, 2012). It is thus likely that benevolent sexist messages are seen to portray women as incompetent. At the same time, hostile sexist messages describe women as undeserving of the same social status as men and competence is a central status defining dimension (Fiske et al., 2002). As in our previous hypothesis, an inspection of the

items in the ambivalent sexism inventory provides further support to our argument. Specifically, the benevolent sexism items suggest that women need men's protection and provision (e.g., "Women should be cherished and protected by men"), which implies that women cannot take care of themselves independently and are less competent relative to men. This notion is also suggested by some hostile sexism items (e.g., "Women exaggerate problems they have at work"), conveying the idea that women are less able and competent.[1] It is thus possible that both types of sexism are seen to communicate a view of women as relatively incompetent, compared to men (Hypothesis 3).

These hypotheses focus on what sexism might be seen to communicate about how women *are* (descriptive stereotypes). However, gender stereotypes and prejudicial beliefs carry both descriptive and prescriptive information (e.g., Rudman & Glick, 2008), but predicting what sexism communicates about how women *should be* (prescriptive stereotypes) is not as straightforward. On the one hand, whilst benevolent sexism is based on the underlying ideal of women as warm and caring, both benevolent and hostile sexism involve the idea that women are not particularly competent. However, it is unclear whether both clearly communicate that this is how women should be. In particular, by expressing a view of women as oversensitive and submissive, hostile sexism might succeed in transmitting the idea that women *should be* warm, but this may be better achieved by benevolent sexism that does so more directly. As such, we expected that benevolent sexism (because it expresses warmth specifically and does so more directly) should convey the view that women *should be* warmer than men (Hypothesis 4). The view that women *should be* warm should also be communicated more strongly by benevolent sexism than by hostile sexism (Hypothesis 5). Consistent with the overall sexist idea that women are less able than men, we also expected both forms of sexism to communicate that women *should be* less competent than men (Hypothesis 6).

Finally, because benevolent and hostile sexism are primarily targeted at women, research has typically devoted more attention to them. However, little is known about how (and whether) men are portrayed by benevolent and hostile sexism messages. Thus, given the dearth of research on what sexism towards women implies for men, we did not raise any specific predictions regarding what these forms of sexism might be seen to communicate about men.

The Present Research

We tested these predictions across three experimental studies. Specifically, male and female participants read a text composed either out of benevolent sexist statements or out of hostile sexist statements. Subsequently, participants described what impressions these texts communicate about men and women along a list of traits diagnostic of warmth and competence, akin to those commonly used in the literature (e.g., Fiske et al. 2002). Hypotheses 1 to 3 (descriptive stereotypes) were tested in Studies 1 and 2. Study 3 focused on perceptions of what these different types of sexism communicate about how women should be (prescriptive stereotypes; Hypotheses 4 to 6). Since this research focuses on what views of men and women participants perceive to be *communicated* by specific sexist messages, rather than assessing their own views about men and women, we did not expect participants' gender to affect their responses.

Study 1

In this study we tested our hypotheses with a broad sample of participants from the general public. Participants read a set of statements reflecting either benevolent or hostile sexism, and subsequently indicated what these statements communicated about men and women across a range of traits diagnostic of warmth and competence.

Method

Design and participants. The study followed a 2 (sexism condition: benevolent sexism vs. hostile sexism) X 2 (participant gender: men vs. women) X 2 (target gender: male vs. female) X 2 (dimension: warmth vs. competence) mixed factorial ANOVA where sexism condition and participant gender were between-participants factors, and target gender and dimension had repeated measures. A convenience sample comprising a total of 93 participants (50 males and 43 females) living in a large urban area in Portugal took part in the study. Their age ranged from 16 to 64 years ($M = 29.04$, $SD = 10.23$). Although we did not register their occupation or marital status, participants held a wide range of work and relational experiences.

Procedure. This was an online study for which participants were recruited using a snowball sampling technique. The study was introduced as an investigation into gender relations in today's society. Participants were asked to read an initial text containing our manipulations. This brief text consisted of items from the Ambivalent Sexism Inventory (ASI; Glick & Fiske 1996). Participants read items either from the benevolent sexism subscale or from the hostile sexism subscale. Items were selected to represent each of the components of benevolent and hostile sexism. Before reading the specific benevolent or hostile sexism messages, all participants read: "The following text communicates something about men and women. We would like to ask you to read the text carefully and answer the questions below". In the *benevolent sexism* condition, participants read: "Many people believe that no matter how accomplished he is, a man is not truly complete as a person unless he has the love of a woman. Every man ought to have a woman whom he adores. On the other hand, women should be cherished and protected by men. A good woman should be set on a pedestal by her man. This is true because many women have a quality of purity that few men possess. Moreover, women, compared to men, tend to have a superior moral sensibility." In the *hostile sexism* condition, they read: "Many people

believe that women are too easily offended. Most women interpret innocent remarks or

acts as being sexist. On the other hand, most women fail to appreciate fully all that men do

for them. Women exaggerate problems they have at work and when they lose to men in a

fair competition, they typically complain about being discriminated against. It is also true

that women seek to gain power by getting control over men."[2] Participants were randomly

allocated to one of the two conditions.

Dependent measures. After reading the text, participants were asked to think about

the image that is conveyed regarding how men and women are (i.e., descriptive

stereotypes). They were presented with the following instructions: "Please think carefully

about the image of women [men] that is communicated by the text you have just read. You

can turn the page and read again in case you need. Now please indicate what these

messages communicate about what women [men] **are**. Remember that in this task we are

not asking about your opinion about women [men], we are instead interested in knowing

the extent to which the text communicates that women [men] **are**:" Bold was used

intentionally for emphasis. Participants then indicated, on a range of attributes, to what

extent the message communicates an image of men and women as warm (honest, sincere,

trustworthy, moral, friendly, nice, affectionate, and sociable) and as competent (competent,

capable, efficient, and intelligent).[3,4] Each participant rated men and women separately on

these attributes using a scale from 1 'not at all' to 7 'completely.' Thus, in our analysis we

differentiate between participant gender and target gender (i.e., the gender being rated on

the different attributes). The order in which participants made ratings for men or for

women was counterbalanced. These attributes formed reliable measures of warmth and

competence of men ($\alpha_{warmth} = .84$, $\alpha_{competence} = .91$) and women ($\alpha_{warmth} = .91$, $\alpha_{competence} = .93$).

Results

We started by conducting a 2 (sexism condition: benevolent sexism vs. hostile sexism) X 2 (participant gender: male vs. female) X 2 (target gender: male vs. female) X 2 (dimension: warmth vs. competence) mixed factorial ANOVA where the first two factors were between-participants and the last two were within-participants factors. The order in which participants made ratings for men and women did not have any reliable effects on the dependent variables. Therefore, for simplicity, analyses reported here collapse across order.

Results revealed a main effect of dimension which was qualified by a reliable two-way interaction between dimension and target's gender, F (1,88) = 6.21, p = .014, ηp2 = .034. T-tests revealed that the texts were seen to convey an image of men as more competent (M = 5.00; SD = 1.07) than warm (M = 4.61; SD = 0.88), t (88) = 5.50, p = .020, ηp2 = .015. There were no other reliable effects with this interaction, ts (88) < 2.89 and ps > .089. Furthermore, the analysis showed a three-way interaction between dimension, type of sexism, and target gender, F (1,88) = 6.25, p = .013, ηp2 = .034. There were no other reliable effects, Fs < 3.85, ps > .050. Importantly, no effects involving participant's gender were revealed, suggesting that men and women agreed about what the different forms of sexism communicate about men and women. We decomposed this complex interaction by examining lower order effects per dimension.

What do the messages communicate about warmth? A 2 (sexism condition: benevolent sexism vs. hostile sexism) X 2 (participant gender: male vs. female) X 2 (target gender: male vs. female) mixed factorial ANOVA with sexism condition and participant gender as between-participants factors and with repeated measures on target gender was conducted on ratings of warmth. Results revealed a significant two-way interaction of target's gender and type of sexism, F (1,89) = 8.84, p = .004, ηp2 = .090 (see Table 1).

There were no other reliable effects, Fs < 0.07, ps > .796. Consistent with Hypothesis 1, the benevolent sexist text was seen to communicate the view that women are warmer (M = 5.41; SD = 0.13) than men (M = 4.75; SD = 0.13), t (89) = 12.22, p = .001, ηp2 = .065. We predicted increased perceptions of warmth to be unique for benevolent sexism. In line with this prediction, hostile sexist statements did not enhance perceptions of women as warm. In fact, although only marginally, the hostile sexism condition was seen to communicate the view that women are less warm (M = 4.08; SD = .13) than men (M = 4.42; SD = .13), t (89) = 3.01, p = .085, ηp2 = .017. Although this pattern was not predicted, it is consistent with the notion that hostile sexism specifically addresses women who give priority to professional competence over other life domains, making them seem relatively cold. Also, in line with Hypothesis 2, t-tests showed that the benevolent sexist text was seen to communicate a view of women as warmer (M = 5.41; SD = 0.13) than the hostile sexist text (M = 4.08; SD = 0.13), t (89) = 47.76, p < .001, ηp2 = .212. There were no differences in what both texts communicated about men, t (89) = 2.84, p = .129, ηp2 = .016.

What do the messages communicate about competence? A 2 (sexism condition: benevolent sexism vs. hostile sexism) X 2 (participant gender: male vs. female) X 2 (target gender: male vs. female) mixed factorial ANOVA with sexism condition and participant gender as between-participants factors and with repeated measures on target gender was conducted on ratings of competence. Results revealed no reliable effects, Fs < 3.61, ps > .060, suggesting that all messages were seen to communicate similar levels of competence for men and for women. This is not what we anticipated according to the reasoning underlying Hypothesis 3. One possibility was that this study was somewhat underpowered. To clarify this finding, further evidence was sought in Study 2 with a larger sample and by performing a meta-analysis of this effect across all our studies (see Study 3's discussion where we provide a meta-analysis that supports the expected effect).

Discussion

In the analyses above our analytical approach was twofold. We examined differences between what the sexist messages communicate about men or women, as well as differences on what a specific message communicates about women comparing to men. This strategy proved to be important given that it allows to clarify some of the null effects predicted and observed in our data. As such, our analyses showed that benevolent sexism communicates a view of women as warmer than men, whereas this was not the case for hostile sexism, which actually communicated a view of women as (marginally) less warm than men (Hypothesis 1). Also, benevolent sexism was seen to communicate a view of women as warmer than hostile sexism (Hypothesis 2). This is consistent with the reasoning underlying ambivalent sexism theory (Glick & Fiske, 1996), namely that benevolent sexism idealises women as warm and hostile sexism punishes women who deviate from this ideal.

This study did not support Hypothesis 3, namely that both forms of sexism would be seen to convey that women are less competent than men. Nevertheless, consistent with our general line of reasoning, it was found that across the board participants perceived the sexist messages to communicate a view of men as more competent than warm, while this was not the case for women. This finding provides some indirect support to Hypothesis 3 by revealing that competence is perceived as typical for men and not for women.

Overall, Study 1 suggests that both types of sexism convey the view that men are competent, but they differ on whether they portray women as warm (benevolent sexism) or cold (hostile sexism). To our knowledge, this study is the first to provide direct empirical evidence for these ideas. Finally, the different texts were not seen to differ in the views they communicate about men. It is important to note that, as predicted, male and female participants agreed about what the different forms of sexism communicated.

Study 2

Study 2 aimed to replicate Study 1's findings and to compare these with the simultaneous expression of benevolent and hostile sexism (ambivalent sexism). The ambivalent sexism condition was included so we could compare whether the combination of benevolent and hostile forms of sexism—commonly found among men and women—communicates aspects of both types of sexism, or is dominated by one or the other. This is particularly important because (a) benevolent sexism's subjectively positive message might be dominated by hostile sexism's antagonistic and more direct messages, and because (b) an ambivalent sexism condition perhaps resembles more what people find in their everyday lives as both benevolent and hostile sexism tend to work in tandem (Glick & Fiske, 1996).

Study 1's hypotheses were maintained, such that that benevolent (but not hostile) sexism were expected to convey the view that women are warmer than men (Hypothesis 1); compared to hostile sexism, benevolent sexism was expected to convey the belief that women are warmer (Hypothesis 2); and both benevolent and hostile sexism were expected to communicate the belief that women are less competent than men (Hypothesis 3).We did not expect participants' gender to have an effect on their responses.

Method

Design and participants. The study followed a 3 (sexism condition: benevolent sexism vs. hostile sexism vs. ambivalent sexism) X 2 (participant gender: male vs. female) X 2 (target gender: male vs. female) X 2 (dimension: warmth vs. competence) mixed factorial ANOVA with sexism condition and participant gender as between-participants factors and repeated measures on the last two factors. A total of 137 university students (62 males and 75 females) took part in the study. Their age ranged from 18 to 54 years ($M = 26.78$, $SD = 8.66$).

Procedure. Participants were recruited on and around the campus of a large University in Portugal and were asked to fill in a paper and pencil questionnaire about gender relations in today's society. We followed the same procedure as in Study 1 and randomly allocated participants to read items from ASI's benevolent sexism subscale, the hostile sexism subscale, or both (ambivalent sexism). All the instructions and the texts for the *benevolent* and *hostile sexism conditions* were those previously used in Study 1. For the *ambivalent sexism* condition we combined statements from both benevolent and hostile sexism conditions. The length of the text was kept the same as in the other conditions. Participants read: "Many people believe that no matter how accomplished he is, a man is not truly complete as a person unless he has the love of a woman. On the other hand, women should be cherished and protected by men. This is true because many women have a quality of purity that few men possess. However, women exaggerate problems they have at work and when they lose to men in a fair competition, they typically complain about being discriminated against. Women are too easily offended."

Dependent measures. Participants indicated to what extent each text communicated a view of men and women as warm and competent on the same attributes used in Study 1. These measures were reliable for male ($\alpha_{warmth} = .92$, $\alpha_{competence} = .94$) and female targets ($\alpha_{warmth} = .95$, $\alpha_{competence} = .94$).

Results

We first conducted a 3 (sexism condition: benevolent sexism vs. hostile sexism vs. ambivalent sexism) X 2 (participant gender: male vs. female) X 2 (target gender: male vs. female) X 2 (dimension: warmth vs. competence) mixed factorial ANOVA with sexism condition and participant gender as between-participants factors and with repeated measures on the last two factors. We did not find any order effects and, again, for

simplicity of presentation, collapsed across this variable in further analyses. Also, as in

Study 1, there were no effects of participant gender.

The analyses revealed a main effect of dimension which was qualified by a two-

way interaction between dimension and target gender, $F(1,131) = 37.25$, $p < .001$, $\eta p2 =$

.124. Participants perceived all messages to describe men as more competent (M = 5.35,

SD = 0.10) than women ($M = 4.53$, $SD = 0.10$), $t(131) = 59.20$, $p < .001$, $\eta p2 = .057$. In

addition, participants saw all messages as describing that men are more competent ($M =$

5.35, $SD = 0.10$) than warm ($M = 4.60$, $SD = 0.10$), $t(131) = 43.85$, $p < .001$, $\eta p2 = .042$.

The analysis also revealed a three-way interaction between dimension, target gender, and

type of sexism, $F(2,131) = 11.14$, $p < .001$, $\eta p2 = .078$. No other effects were reliable, all

Fs < 2.39 and ps $> .123$. As in Study 1, we decomposed the 3-way interaction by

dimension.

What does sexism communicate about warmth? A 3 (sexism condition:

benevolent sexism vs. hostile sexism vs. ambivalent sexism) X 2 (participant gender: male

vs. female) X 2 (target gender: male vs. female) mixed factorial ANOVA with sexism

condition and participant gender as between-participants factors, and with repeated

measures on target gender was conducted on ratings of warmth. This analysis revealed

only a reliable interaction between target gender and type of sexism, $F(2,131) = 21.85$, $p <$

.001, $\eta p2 = .250$ (see Table 2). There were no other reliable effects, Fs < 0.09, ps $> .777$.

We further examined this effect with tests for the specific hypothesised contrasts.

Consistent with Hypothesis 1, t-tests indicated that the benevolent sexist text was seen to

communicate a view of women as warmer ($M = 5.74$; $SD = 0.18$) than men ($M = 4.49$; SD

$= 0.17$), $t(131) = 26.02$, $p < .001$, $\eta p2 = .090$; whereas the hostile sexist text was seen to

communicate a view of women as less warm ($M = 3.63$; $SD = 0.17$) than men ($M = 4.71$;

$SD = 0.16$), $t(131) = 22.08$, $p < .001$, $\eta p2 = .078$. There were no differences between what

the ambivalent sexist communicates about men and women's warmth, $t(131) = 0.07$, $p = .799$, $\eta p2 < .001$. Moreover, and in line with Hypothesis 2, the benevolent sexist text was seen to communicate a view of women as warmer than the hostile sexism text, $t(131) = 79.07$, $p < .001$, $\eta p2 = .232$. Ratings in the ambivalent sexism condition were in between the other sexism conditions (i.e., ambivalent sexism communicated a view of women as less warm than the benevolent sexist text, $t(131) = 25.71$, $p < .001$, $\eta p2 = .089$; but warmer than the hostile sexist text, $t(131) = 17.05$, $p < .001$, $\eta p2 = .061$). Ratings of what the texts communicated about men's warmth were relatively low across the board and did not differ across conditions, all ts$(131) < 0.85$ and ps $> .361$.

What does sexism communicate about competence? A 3 (sexism condition: benevolent sexism vs. hostile sexism vs. ambivalent sexism) X 2 (participant gender: male vs. female) X 2 (target gender: male vs. female) mixed factorial ANOVA with sexism condition and participant gender as between-participants factors, and with repeated measures on target gender was conducted on ratings of competence. Consistent with Hypothesis 3, results revealed a significant main effect of target gender, suggesting that all messages were seen to communicate a view of men as more competent ($M = 5.35$; $SD = 0.10$) than women ($M = 4.53$; $SD = 0.12$), $F(1,131) = 28.91$, $p < .001$, $\eta p2 = .181$. There were no other reliable effects, Fs < 2.00, ps $> .139$.

Discussion

Overall, Study 2's findings replicate and extend Study 1's results. Consistent with our previous findings, benevolent sexism was seen to communicate a view of women as warmer than men, whereas this was reversed in the hostile sexism message, which was seen to communicate a view of women as less warm than men (Hypothesis 1). Also, benevolent sexism was seen to communicate a view of women as warmer than hostile

sexism (Hypothesis 2). Taken together, results supported Hypothesis 3 in showing that all sexist messages communicate a view of women as less competent than men.

This study extended our previous results by showing that ambivalent sexism, rather than being dominated by either hostile or benevolent sexist views, appeared to portray an image of women which lies in between the other conditions. That is, ambivalent sexism was seen to communicate a view of women as less warm than benevolent sexism, but warmer than hostile sexism. In another way, while benevolent sexism (and to a lesser extent ambivalent sexism) was seen to communicate a view of women as warm but incompetent (relative to men), hostile sexism was seen to communicate a view of women as both relatively incompetent and cold. That is, ambivalent sexism projected an image of women that is neither dominated by benevolent nor by hostile sexism, but instead consisted of a tempered version of the two. Again, male and female participants agreed about what the different forms of sexism communicate, and views about men did not depend on type of sexism.

Study 3

In this study we maintained the design and measures of our previous studies. However, while in our previous studies participants indicated what the texts communicate about men and women at a *descriptive* level, in Study 3 participants indicated what they thought the text communicates in terms of *prescriptive* implications for men and women (i.e., what they should be like). In this study, we tested whether our previous findings would also hold when examining what the different forms of sexism communicate about what men and women *should be*. In particular, we examined whether hostile sexism succeeds in transmitting the view that women should be warm, or whether this is better achieved by benevolent sexism, which does so more directly. As such, in this study, we predicted that benevolent sexism (because it expresses warmth more directly) would

convey the view that women *should be* warmer than men (Hypothesis 4). The view that

women *should be* warm should be communicated more strongly by benevolent sexism than

hostile sexism (Hypothesis 5). Finally, it would appear relatively safe to expect that both

hostile and benevolent sexism would communicate the belief that women *should be* less

competent than men (Hypothesis 6).

As in Study 2, Study 3 also included an ambivalent sexism condition to examine

what ambivalent sexism is seen to prescribe for men and women with regard to warmth

and competence. Given the dearth of research in this area, we did not have specific

predictions for the patterns to be expected in the ambivalent sexism condition. We

anticipated that the different forms of sexism would not have an effect on their

prescriptions for men. Again, we did not anticipate differences between men's and

women's responses.

Method

Design and participants. The study followed a 3 (sexism condition: benevolent

sexism vs. hostile sexism vs. ambivalent sexism) X 2 (participant gender: men vs. women)

X 2 (target gender: male vs. female) X 2 (dimension: warmth vs. competence) mixed

factorial ANOVA with sexism condition and participant gender as between-participants

factors, and with repeated measures on the last two factors. A total of 111 university

students (43 males and 68 females) from a large university in Portugal took part in the

study. Their age ranged from 18 to 55 years ($M = 24.93$; $SD = 7.01$).

Procedure. This study followed the same procedure as Studies 1 and 2, except for

the way in which the dependent variables were presented (see below). Participants were

university students who had not been recruited to any of our previous studies and were

invited to fill in a paper and pencil questionnaire. They were randomly allocated to one of

the experimental conditions.

Dependent measures. After reading the text and taking a moment to think about it, participants indicated the extent to which they thought that the text communicates that men and women *should be* warm and competent on the same items used in our previous studies. This procedure is identical to that of Gill (2004) who asked participants to rate in a number of traits "what ideal women should be" with the goal of capturing the prescriptive content of stereotypes. This idea is also supported by other research focusing on how children interpret gender stereotype-related questions. Specifically, this work has shown that just changing a "who is" type of question to a "who should" question is enough to elicit completely different responses (for a meta-analysis of these studies, see Signorella, Bigler, & Liben, 1994). Taken together, these findings show that individuals are sensitive to what might seem like a subtle change in wording, but in fact asking what the messages communicate about what men or women "are" should be understood differently from what men or women "should be."

As such, we provided the following information to all participants: "Please think carefully about the image of women [men] that is communicated by the text you have just read. You can turn the page and read again in case you need. Now please indicate what these messages communicate about what ideal women [men] **should be** like. Remember that in this task we are not asking about your opinion about women [men], but we are instead interested in knowing the extent to which the text communicates that women [men] **should be**:" Bold was used intentionally for emphasis. This text was followed by the same list of traits used in Studies 1 and 2.

Again, the order in which participants made ratings of men and women was counterbalanced. These attributes formed reliable measures of warmth and competence for male ($\alpha_{warmth} = .89$, $\alpha_{competence} = .95$) and female targets ($\alpha_{warmth} = .94$, $\alpha_{competence} = .94$).

Results

The analysis followed the same analytical procedure as Studies 1 and 2 and started with a 3 (sexism condition: benevolent sexism vs. hostile sexism vs. ambivalent sexism) X 2 (participant gender: male vs. female) X 2 (target gender: male vs. female) X 2 (dimension: warmth vs. competence) mixed factorial ANOVA with sexism condition and participant gender as between-participants factors, and with repeated measures on the last two factors. Again, there were no order effects and thus this variable was not included in the analyses below.

Results showed a marginally significant main effect of dimension which was qualified by a significant two way interaction between dimension and target gender, F $(1,105) = 35.13$, $p < .001$, $\eta p2 = .143$. In line with the idealised views of women that underlie benevolent, hostile, and ambivalent sexism, all texts were seen as conveying that men *should be* more competent (M = 5.48, SD = .10) than women (M = 4.64, SD = .10), t $(105) = 27.75$, $p < 001$, $\eta p2 = .059$; that men *should be* more competent than warm (M = 4.84, SD = .10), t $(105) = 17.37$, $p < 001$, $\eta p2 = .038$; and that women *should be* more warm (M = 4.96, SD = .10) than competent (M = 4.64, SD = .10), t $(105) = 5.34$, $p = .029$, $\eta p2 = .011$.

There were no other reliable effects, Fs < 0.29, ps $> .590$, apart from a three-way interaction between dimension, target gender, and type of sexism, F $(2,105) = 7.34$, $p = .001$, $\eta p2 = .065$. Consistent with our previous studies, participants from both sexes agreed about what the different types of sexism communicate about how men and women *should be*. We decomposed the three way interaction by dimension.

What does sexism communicate about warmth? A 3 (sexism condition: benevolent sexism vs. hostile sexism vs. ambivalent sexism) X 2 (participant gender: male vs. female) X 2 (target gender: male vs. female) mixed factorial ANOVA with sexism

condition and participant gender as between-participants factors, and with repeated

measures on target gender was conducted on ratings of warmth. This analysis revealed a

reliable two-way interaction between target gender and type of sexism, F (2,105) = 11.89,

$p < .001$, ηp2 = .184 (see Table 3). There were no other reliable effects, Fs < 0.38, $ps >$

.366. *T*-tests showed that, in line with Hypothesis 4, the benevolent sexist text was seen to

communicate the view that women *should be* warmer ($M = 5.92$; $SD = 0.15$) than men (M

$= 5.11$; $SD = 0.15$), t (105) = 15.19, $p < .001$, ηp2 = .067. Although we expected this to be

different (weaker) in the hostile sexism condition, we were surprised to find that this was

actually reversed: That is, the hostile sexist text was seen to communicate the view that

women *should be less warm* ($M = 3.94$; $SD = 0.17$) than men ($M = 4.66$; $SD = 0.17$), t

(105) = 9.00, $p = .003$, ηp2 = .041. There were no differences in what the ambivalent sexist

was seen to communicate about how warm men and women *should be*, t (105) = 1.37, $p =$

.243, ηp2 = .006.

Finally, in line with Hypothesis 5, the benevolent sexism text was seen to

communicate the view that women *should be* warmer than the hostile sexist text, t (105) =

77.06, $p < .001$, ηp2 = .268. Ratings in the ambivalent sexism condition were in between

the other sexism conditions such that the ambivalent sexist text was seen to communicate

that women *should be* less warm than the benevolent sexist text, t (105) = 17.29, $p < .001$,

ηp2 = .076, but warmer than the hostile sexist text, t (105) = 21.61, $p < .001$, ηp2 = .093.

By contrast, ratings of what the texts might communicate about how warm men should be

did not differ across conditions, all ts(105) < 3.87 and $ps > .050$.

What does sexism communicate about competence? A 3 (sexism condition:

benevolent sexism vs. hostile sexism vs. ambivalent sexism) X 2 (participant gender: male

vs. female) X 2 (target gender: male vs. female) mixed factorial ANOVA with sexism

condition and participant gender as between-participants factors, and with repeated

measures on target gender was conducted on ratings of competence. Results supported

Hypothesis 6 and again showed a significant main effect of target gender, which was

unqualified by type of sexism. That is, participants indicated that all three texts

communicate the view that men *should* be more competent ($M = 5.47$; $SD = .11$) than

women ($M = 4.64$, $SD = .12$), $F(1,105) = 28.88$, $p < .001$, $\eta p2 = .216$. There were no other

reliable effects, Fs < 1.25, ps $> .292$.

Discussion

Parallel to our previous studies on descriptive implications of hostile and

benevolent sexist views, in this third study male and female participants agreed on what

hostile and benevolent sexism communicate about the way women *should* be. Specifically,

we found that exposing participants to benevolent sexism communicates the view that

women should be warmer than men (Hypothesis 4). Benevolent sexism also communicated

the view that women should be warm, more so than did hostile sexism (Hypothesis 5). In

fact, surprisingly, hostile sexism seems to communicate the opposite: i.e., that women

should be less warm than men. These findings are parallel to those of Studies 1 and 2,

where we examined what the sexist texts communicate at the descriptive level. This is not

entirely self-evident since describing women as cold is not the same as communicating that

this is how they should be. Male and female participants also agreed that benevolent or

hostile sexist views communicate that women *should be* less competent than men

(Hypothesis 6).

Ratings in the ambivalent sexism condition were again in between the other two

conditions, suggesting that the image of men and women communicated by ambivalent

sexism is not dominated by either benevolent or hostile sexism but it instead consists of

aspects from both benevolent and hostile sexism. Again, type of sexism did not affect how

women should be in terms of the competence dimension and also did not affect how men

should be both in terms of competence and warmth. This might be taken to suggest that

sexist views regard men as the standard against which women are evaluated (see also

Hegarty & Pratto, 2001).

      Comparison between Studies 2 and 3. As predicted, our three studies revealed

that the sexist messages communicate identical patterns at both the descriptive and

prescriptive level. To further test this idea, we performed an additional analysis merging

data from Study 2 and 3. Note that participants in Studies 2 and 3 comprised two

independent samples recruited from the same university and are therefore very comparable.

Also, both studies had the exact same conditions and measures allowing to successfully

merge all data. Because Study 1 differed in the type of sample and also because it did not

have the ambivalent sexism condition it was not included in the analysis below.

      After merging the data we created a new variable specifying whether participants

read the descriptive (Study 2) or prescriptive instructions (Study 3). Merging the two

studies resulted in a 2 (study: descriptive vs. prescriptive) X 3 (sexism condition:

benevolent sexism vs. hostile sexism vs. ambivalent sexism) X 2 (participant gender: male

vs. female) X 2 (target gender: male vs. female) X 2 (dimension: warmth vs. competence)

mixed factorial ANOVA with the three first factors as between-participants factors and

with repeated measures on the last two factors. The total sample comprised 248

participants (105 males and 143 females; $M = 25.86$; $SD = 7.84$). Results showed that the

three-way interaction previously analysed was also reliable in this analysis, $F (2,236) =$

15.93, $p < .001$, $\eta p2 = .119$. However, adding the study variable (descriptive vs

prescriptive) to this interaction yielded a non-reliable interaction, $F (2,236) = 1.29$, $p =$

$.276$, $\eta p2 = .011$, indicating that that there were no differences between what the sexist

messages communicate at the descriptive and prescriptive level.

Of importance, there were some marginal interaction effects with the study variable (descriptive vs prescriptive). For example, there was a marginal interaction between this variable and target gender, and another interaction with target gender and type of sexism, F (1,236) = 3.14, p = .078, ηp2 = .013 and F (2,236) = 2.39, p = .094, ηp2 = .020. These interactions are not relevant to our hypothesis testing and are therefore not further described here. However, these results suggest that participants responded differently to Study 2 and 3's descriptive and prescriptive instructions, which is in line with previous research with similar manipulations and instructions (e.g., Gill, 2004; Signorella, Bigler, & Liben, 1994).

Meta-analysis. To further test the robustness of our hypotheses we performed a meta-analysis using a random-effects model to assess the average effect size across studies (Borenstein, Hedges, Higgins, & Rothstein, 2005). For each study we calculated the effect size associated with each hypothesis using Cohen's d (Cohen, 1990). Given that Study 1 did not have an ambivalent sexism condition, we only examined the effect sizes of the hypothesis concerning the benevolent and hostile sexist messages. Moreover, Study 3 indicated that the sexist messages communicate the same stereotype content at both the descriptive and prescriptive levels so we collapsed across our initial six hypothesis to have three main hypothesis addressing together what the messages communicate at both the descriptive and prescriptive levels. In the meta-analysis, the hypothesis that benevolent sexism communicates that women *are* and *should be* warmer than man (Hypothesis 1) yielded an average effect size of d = 0.56 (z = 9.49, p < .001, 95% CI: 0.1721 to 0.9471). Moreover, the hypothesis that, compared to hostile sexism, benevolent sexism communicates that women *are* and *should be* warm (Hypothesis 2) yielded an average effect size of d = 0.66 (z = 15.58, p < .001, 95% CI: 0.2661 to 1.0455). Finally, the hypothesis that both types of sexism communicate that women are and should be less

competent than men (Hypothesis 3), yielded an average effect size of $d = 0.55$ ($z = 2.05$, p = .041, 95% CI: 0.1637 to 0.9371). Overall, the meta-analysis revealed that the comparisons tested by our main hypotheses are all robust and of moderate size.

General Discussion

In the present research we investigated the views of men and women that are communicated by benevolent and hostile sexism. We examined these views at both the *descriptive* (Studies 1 and 2) and *prescriptive* levels (Study 3). Results showed that the two forms of sexism differed in the extent to which they were seen to communicate warmth. Across the three studies we found that benevolent sexism was consistently seen to portray the view that women *are* (Studies 1 and 2) and *should be* (Study 3) warmer than men in comparison to hostile sexism. Participants, however, generally thought that both benevolent and hostile sexism communicate the view that women *are* (Study 2) and *should be* (Study 3) less competent than men. Extending these findings, Studies 2 and 3 revealed that the views communicated by ambivalent sexism were neither dominated by benevolent nor by hostile sexism. Importantly, male and female participants in our three studies agreed on what the different forms of sexism communicate about both sexes.

Whilst previous work has focused mainly on examining the further implications of sexist beliefs (e.g., for social relations, women's performance, or interpersonal impression formation), in this paper we build on this research by shedding light on what different expressions of sexism *communicate* about men and women. Importantly, our work shows that, compared to hostile sexism, benevolent sexism conveys a particularly warm image of women. This might contribute to explaining why men and women tend to be more accepting of benevolent than of hostile sexism (e.g., Barreto & Ellemers 2005b; Becker & Wright 2011; Jost & Kay 2005; Moya et al. 2007). This subjective positivity might also render benevolent sexism more frequently and uncritically communicated than hostile

sexism, further contributing to its important role in perpetuating gender inequalities. Nonetheless, this is not without drawbacks, as it communicates that women are lacking in competence and also that they *should* be less competent than men. To examine this, future research might focus more directly on the communication of sexism across more extended social chains, such as by examining the extent to which different forms of sexism are uncritically communicated within friendship or work groups and also on the consequences this might have for the development of 'local' (or group specific) views about men and women.

Another interesting point relates to the fact that the hostile sexism messages communicated that women *are* and *should be* colder than men. This is in accordance with ambivalent sexism theory's reasoning that hostile sexism punishes non-traditional women (e.g., career women) by expressing hostility against them and characterizing women as aggressive or overly assertive (Glick et al., 1997). In doing so, our data shows that hostile sexism punishes non-traditional women by taking away from them the only positive dimension of their stereotype content (i.e., warmth).

Regarding competence, it is remarkable that both forms of sexism communicated the idea that women are and should be less competent than men. This is a particularly novel and interesting finding given that it emerged even though none of the texts explicitly referred to women's competence. Hostile sexism may imply women's lack of competence by describing women's aspirations as unreasonable, but benevolent sexism does not even contain such implications about the performance domain. Indeed, at the same time that benevolent sexism accentuates women's warmth, it omits information about competence. Nevertheless, both types of sexism seem to succeed in communicating the negative beliefs about women's competence from which they derive.

Others before us have shown that emphasising positive stereotypes about devalued groups facilitates the application of negative stereotypes (e.g., Kay et al., 2013). It has also been shown that when communicators omit information on a particular attribute, targets are assumed to lack that attribute (Kervyn et al., 2012). Thus, these forms of sexism may imply women's inferior competence precisely because they do not address competence as a relevant attribute of women. Overall, while both forms of sexism communicated a view of women as less competent, benevolent and hostile sexism differed in how they depicted women in terms of warmth. Our work draws on the central tenets of ambivalent sexism theory to empirically demonstrate that this typical focus on competence neglects an important way in which sexism is communicated and perpetuated—i.e., not only as women's inferior competence, but also as women's superior warmth. Although prior research had already shown that sexism involves these beliefs and that this has important consequences for the acceptance and maintenance of traditional gender relations, it had not yet examined whether or how this corresponds to how these sexist beliefs are interpreted, or what they convey.

We further extend previous research by differentiating between what sexism communicates, explicitly assessing and comparing descriptive and prescriptive implications. In Study 3, using the same paradigm and measures as in the first two studies, we found that what benevolent and hostile sexism communicated about how women *should be* is very similar to what they communicated about how women *are*. That is, benevolent sexism was seen to communicate that women should be warm, and did so to a greater extent than hostile sexism. In addition, benevolent and hostile sexism were both seen to communicate that women should be less competent than men. Although it might have been surprising that hostile sexism was viewed to convey that women should be less warm than men, research has shown that the qualities that are ascribed to men and women

tend to be closely aligned with those who are required for both (Prentice & Carranza, 2002). As such, descriptive and prescriptive aspects of stereotyping should be closely related and this is what we found in our studies. Moreover, although our focus was not on the direct comparison between descriptive and prescriptive beliefs, the finding that what benevolent and hostile sexism communicate at the prescriptive level closely parallels descriptive implications, suggests another way in which these forms of sexism contribute to the perpetuation of gender inequalities. That is, by consistently transmitting not only how men and women are, but also how they should be, these beliefs provide a set of expectations about men and women, which may have further negative implications, given that individuals violating existent expectations tend to be the targets of negative treatment (e.g., Biernat, Vescio, & Billings 1999).

It is also important to note that these different forms of sexism did not differ in what they were seen to communicate about men. Indeed, this is not surprising because benevolent and hostile sexism target the behaviour of women in particular, with men providing the standard point of reference in this context. However, the fact that much can be communicated by omission (as when lack of competence is inferred from empathic merits), or by implication, rendered the examination of what sexism communicates about men highly relevant. Although the types of sexism we examined targeted primarily women, there are forms of sexism that target and derogate men (Glick, Lameiras, Fiske, et al., 2004). It is likely that these later forms of sexism (towards men) communicate specific views and expectations about men, which future research might wish to examine.

Finally, we did not find effects of participant gender across our studies, i.e., men and women agreed about what the different forms of sexism communicate regarding men's and women's warmth and competence. Clearly, this does not mean that men and women are unlikely to differ in how they subjectively experience these forms of sexism (e.g., their

consequences for men's and women's self-views, or their personal views of men and women)—that is a question for further research. What this means is that benevolent and hostile sexism communicate rather clear views of men and women regardless of the gender of those exposed to these views.

Limitations and Future Research

It is important to acknowledge that all studies reported here were conducted in a single cultural context. It would be important to replicate these findings in other contexts. Nevertheless, there is no reason to expect that benevolent and hostile sexism are particularly familiar or relevant in this cultural context. Given past research showing the prevalence of these types of sexism across multiple countries and cultures (e.g., Glick et al. 2000, 2004), there is also no reason to expect that what benevolent and hostile sexism communicate is unique to our samples or context.

Our work only focused on the link between gender stereotypes and two particular forms of sexism, i.e., hostile and benevolent sexism. We consider that an important contribution of our research was that we focused on more than one form of sexism, but the fact that others have remained unexamined is a limitation. Future research might wish to examine other forms of sexism or other forms of prejudice such as racism and whether communicating beliefs about their targets corresponds to the stereotypes on which they are based.

Another potential avenue for future research would be to examine whether sexist messages are perceived differently depending on the source conveying these messages. A future study manipulating whether the source was a man or a woman could introduce both status and power dynamics (Lammers et al., 2008), as well as an ingroup/outgroup differentiation. It is likely that the intersection between these characteristics could dictate different perceptions and reactions to the sexist messages.

It is important to note that in everyday social life sexist messages might not be communicated as clearly and as explicitly as in our studies. These messages can be often camouflaged with other information, behaviour, or even by the context in which they occur. It would therefore be interesting for future research to examine the questions investigated in our studies in a more natural setting.[5]

Moreover, our research focused only on the communicative aspect and did not examine its further implications. One of the main conclusions from our studies was that the different forms of sexism (albeit not explicitly referring to any competence evaluations) communicate that women are less competent than men. It is thus vital to understand how the aspects communicated and identified in our research may relate to other outcomes related to perceived competence such as, for example, women's career aspirations. Women's perceived lack of competence (in comparison to men), when exposed to sexism, may explain for example why sexism decreases women's leadership aspirations (see for example, Barreto et al. 2010). These findings are therefore also relevant for the development of interventions aiming to address the poor representation of women in science or leadership positions.

Conclusion

Although prior research had shown that benevolent sexism has insidious effects, it had not yet demonstrated that expressing benevolent sexism may be a particularly successful way of spreading stereotypical expectations. Our findings show that benevolent sexism—which is subjectively positive and therefore often undetected as a form of sexism—communicates gender stereotypes at least as well as hostile sexism. This adds to other types of evidence which can be drawn upon to conclude that benevolent sexism is far from inoffensive. Indeed, it appears to be the ideal vehicle to communicate sexist beliefs in ways that remain uncensored.

In sum, this research adds to existing knowledge by identifying the specific stereotype content that is communicated by different forms of sexism. In this way, our work contributes to an improved understanding of how preconceived beliefs about gender are communicated and gender inequalities are perpetuated.

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Footnotes

1. It is important to note that at a first glance some hostile sexism items may seem to communicate that women are competent (e.g., "Women seek to gain power by getting control over men" and "Many women are actually seeking special favours, such as hiring policies that favour them over men, under the guise of asking for "equality"). However, another underlying message of these items is that in a fair competition women might not be able to challenge men and need to use deceiving strategies in order to obtain power and be able to compete with them. This interpretation should become stronger when these items are analysed together with the remaining hostile sexism items, which more clearly point in this direction.

2. This study had originally included a *gender equality* condition (with 52 participants) where we stressed similarities between men and women. The aim of including this condition was to have neutral statements to which we could compare the remaining sexism conditions. In hindsight, however, we felt that this was a poor choice given that individuals (especially men) might communicate that status relationships are fair and equalitarian in an attempt to hide women's disadvantage so the status quo can be maintained. As such, the differences between this condition and the benevolent and hostile sexism conditions were too many to allow for meaningful comparisons. We thus decided not to analyse the responses obtained in this condition. The complete data can be obtained from the authors upon request.

3. All attributes were selected according to two pilot studies examining their diagnosticity (as warmth or competence indicators) and valence. The first pilot study comprised 38 participants (27 females) that were invited to rate the extent to which each attribute (from a list of 220 attributes commonly used in stereotype research) was seen in Portuguese society as typically describing competence, sociability, or morality. In the

second pilot study, we presented 40 participants (23 females) with a list of the most

consensual attributes identified in the previous pilot. These participants were invited to rate

the valence of each attribute. The most consensual attributes that were also more identical

in valence were selected for this study.

4. Some previous research has made a further distinction between morality and

sociability as separate aspects of warmth (see Leach, Ellemers, and Barreto 2007). This is

why we included items that reflected both sociability and morality traits when assessing

warmth in the present research. However, a factor analysis showed that morality and

sociability attributes loaded together in one factor and competence loaded in a separate

factor. This probably reflects the fact that the distinction between sociability and morality

is less relevant in contexts where sexist beliefs are salient. Thus, we averaged across

morality and sociability attributes to form a warmth dimension. This approach is consistent

with Glick and Fiske's (1996) conceptualization of warmth and was followed throughout

this research.

5. We would like to thank an anonymous reviewer for this suggestion.

Table 1

Study 1: What do the messages communicate about men's and women's warmth and competence?

Sexism	Warmth		Competence	
	Views about women	Views about men	Views about women	Views about men
BS	5.41 (.13)^{b}	4.75 (.13)^{a}	5.23 (.15)	5.17 (.15)
HS	4.08 (.13)^{a*}	4.42 (.13)^{a*}	4.44 (.16)	4.78 (.16)

Note: BS = Benevolent Sexism; HS = Hostile Sexism. Means with different subscripts

differ significantly with $p < .050$. Subscripts with * indicate that means differ with $p = .085$.

Table 2

Study 2: What do the different types of sexism communicate about how warm and competent men and women are?

	Warmth		Competence	
Sexism	Views about women	Views about Men	Views about women	Views about men
BS	5.74 (.18)^c	4.49 (.17)^b	5.02 (.22)	5.57 (.18)
HS	3.63 (.17)^a	4.71 (.16)^b	4.05 (.20)	5.30 (.16)
AS	4.56 (.16)^b	4.61 (.15)^b	4.53 (.20)	5.20 (.16)

Note: BS = Benevolent Sexism; HS = Hostile Sexism; AS = Ambivalent Sexism. Means

with different subscripts differ significantly with p < .050.

Table 3

Study 3: What do the different types of sexism communicate about how warm and competent men and women *should be*?

Sexism	Warmth		Competence	
	Views about women	Views about Men	Views about women	Views about men
BS	5.92 (.15)^c	5.11 (.15)^b	5.11 (.18)	5.70 (.18)
HS	3.94 (.17)^a	4.66 (.17)^b	3.94 (.17)	5.04 (.21)
AS	5.02 (.16)^b	4.76 (.16)^b	4.54 (.20)	5.70 (.20)

Note: BS = Benevolent Sexism; HS = Hostile Sexism; AS = Ambivalent Sexism. Means with different subscripts differ significantly with $p < .050$.