# Replication and Extension of Gul and Kupfer (2019): Why Do Women Perceive Men With Benevolently Sexist Attitudes Towards Women as Undermining and Patronizing?

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#### Abstract

Benevolent sexism (BS) is an essential element of sexism, which causes a lot of psychological and societal harm, especially to women. However, not only negative characteristics are attributed to men with BS attitudes. Previous studies showed that women find BS men more attractive despite perceiving them as more undermining and patronizing. Gul and Kupfer (2019) introduced and confirmed a novel explanation for this: the benevolence as a mate-preference hypothesis. According to their results, heterosexual women find BS men more attractive because they perceive them to be more willing to invest (provide, protect, commit). This study aimed to replicate Gul and Kupfer's (2019) findings with a primarily German sample and extend the results by examining why BS men are perceived as more undermining and patronizing.

To investigate this gap in research, namely, why BS men are perceived as more undermining and patronizing, other attributes women make about BS men were explored. To research this, female participants who are attracted to men (N = 133) were randomly assigned to one of two conditions (presented with a scenario about either BS men or non-BS men). Participants rated these men in several categories and expressed their own feminist attitudes. Several one-way ANOVAs were conducted to investigate whether BS men and non-BS men are rated differently, and a moderation analysis was conducted to test whether feminist values of the participants influence how attractive they rate the men.

Women in this study rated BS-men as more willing to provide, protect, commit, and more likely to behave in a patronizing and undermining manner than non-BS men. Contradicting to previous studies, they did not perceive BS men as more attractive than non-BS men. Women with moderate and high feminist attitudes found the non-BS men more attractive, while women with low feminist values found both men equally attractive. Other inferences the participants made about BS men are that they also hold more hostile sexist attitudes and less gender-egalitarian attitudes and show more jealous behaviour in relationship conflicts than non-BS men.

These findings partially contradict previous research and suggest that women in this study had different priorities regarding what aspects are important for attractiveness. In addition, their feminist attitudes played an essential role in the perception of attractiveness as well. Altogether, this study brought new insights into the understanding of benevolent sexist attitudes.

Keywords: benevolent sexism, hostile sexism, feminism, attraction, mate preferences

# **Replication and Extension of Gul and Kupfer (2019): Why Do Women Perceive Men** With Benevolently Sexist Attitudes Towards Women as Undermining and Patronizing?

Being treated differently because of their gender is part of many women's lives. Sexism, therefore, influences women and men and the relationships between them in various ways. Levels of sexism in society have decreased over the past years (Huang et al., 2019). However, equality is still not reached completely (e.g., Crespí-Lloréns et al., 2021). Sexism is often underestimated and therefore unchallenged, especially in the case of the more subtle form of sexism: benevolent sexism (Barreto & Ellemers, 2005b; Hopkins-Doyle et al., 2019). Nevertheless, it is not less harmful, which is why it is an important societal issue (Barreto & Ellemers, 2005a; Glick & Fiske, 1996; Goh & Hall, 2015; Jost & Kay, 2005; Klonoff et al., 2000). Previous research showed that women prefer men with benevolent sexist attitudes over other men (Bohner et al., 2010; Gul & Kupfer, 2019; Montañés et al., 2013), but still rate them as undermining and patronizing (Gul & Kupfer, 2019). The purpose of this study is to replicate Gul and Kupfer's (2019) study 1b and extend it to understand why women perceive men with benevolent sexist attitudes as more likely to be patronizing and undermining.

## Hostile Sexism and Benevolent Sexism

Sexism can manifest in different forms. Generally, it is defined as discrimination based on gender. Typically, but not exclusively<sup>1</sup>, this manifests in prejudices against women, both consciously and unconsciously. Glick and Fiske (1996, 1997, 2001a, 2001b) distinguish two types of sexism. First, the most prominent and easily recognisable form of sexism is *hostile sexism (HS)*. It involves prejudices, which usually include sexist antipathy and negative opinions about women (Glick & Fiske, 1996). An example of HS is thinking that women cannot work with technical devices or are incapable of fulfilling a leadership position in their careers. The other type of sexism can be more subtle and often goes unnoticed, which is why it is more difficult to change (Barreto & Ellemers, 2005b; Hopkins-Doyle et al., 2019). It is called *benevolent sexism (BS)* and describes having "subjective positive" attitudes towards women like the belief that men should cherish and protect women and behave chivalrously towards them (Dardenne et al., 2007; Glick & Fiske, 1996). Another BS attitude towards women could be "women are more caring and sensible than men" (Sarlet et al.,

<sup>&</sup>lt;sup>1</sup> This paper's focus is on relationships between cis-men and -women. This was decided because of the topic of sexism, which typically involves an imbalance between men and women. Generally, sexism can also affect men.

2012). An example of BS behaviour can be to pay for the woman's meal when eating out. Glick and Fiske (1996) argue that these stereotypical beliefs lead to women being perceived in restricting roles by men with BS attitudes and that this type of sexism often leads to behaviour of the man like helping the woman or seeking intimacy. Although this kind of behaviour can be courteous and out of good intentions, it can also result from sexist beliefs, which is detrimental for women.

### Negative Consequences of Benevolent Sexism for Women

Being exposed to BS can harm women's psychological well-being enormously. Women who experience sexism in general are more likely to suffer from mental disorders like anxiety (Barreto & Ellemers, 2005a; Klonoff et al., 2000), depression and somatisation (Klonoff et al., 2000). Next to that, encountering BS can lead to a change in the women's self-perception, meaning that they experience more body shame and have more intentions to manage their appearance than women exposed to HS or no sexism (Calogero & Jost, 2011). Their cognitive performance in work contexts can also decrease (Dardenne et al., 2007). Consequently, women often belittle themselves and their qualities, which leads them to be less determined to pursue their goals (Feather, 2004) and feel more incompetent (Dumont et al., 2010). All these findings indicate that BS has dramatic negative effects on women's mental health.

Besides these psychological consequences, BS also affects women on a societal level. Studies show that men with BS attitudes perceive women as weaker, which leads to further sexist behaviours (Goh & Hall, 2015). These findings support the idea that BS contributes to the belief that men are superior to women (Glick & Fiske, 1996, 1997, 2001b). Furthermore, BS men perceive women in traditional gender roles as more attractive, which promotes conformity to these expectations (Glick et al., 1997) and legitimates gender inequalities in society and relationships (Jost & Kay, 2005). In line with that, the undermining nature of BS can decrease women's motivation to challenge inequalities (Becker & Wright, 2011). The tendency of BS to remain unnoticed (Barreto & Ellemers, 2005b; Hopkins-Doyle et al., 2019) is especially harmful to gender equality and the perception of women in society.

### **Benevolent Sexism and Mate Preferences**

Despite the harm BS can cause, it can also be perceived positively. Especially in romantic contexts, being benevolent sexist can benefit men, as women find BS men more likeable than HS or non-sexist men (Bohner et al., 2010). Per definition, men with BS attitudes treat women chivalrously (Dardenne et al., 2007; Glick & Fiske, 1996), which shows in paying for them and helping them with small tasks. BS also implies positive

characteristics to women. For instance, people with BS attitudes think of women as fairer and kinder as well as more moral and refined (Glick & Fiske, 2001b). Looking at it from this perspective, it seems like women and men benefit from BS. In line with that, BS attitudes are rated as more acceptable than other types of sexism (Barreto & Ellemers, 2005a), which may be due to its subjective positive intentions (Glick & Fiske, 1996). However, the subjectively positive attributes go hand in hand with the fact that many men also perceive women as weaker and in need of the men's support and protection (Dardenne et al., 2007; Glick & Fiske, 2001b). For reasons like this, preference of BS men is especially dangerous and an important societal issue.

Paradoxically, the consequences of BS are not in line with women's mate preferences, as women prefer men with BS attitudes, who behave in ways harmful for women's wellbeing. A recent paper (Gul & Kupfer, 2019) investigated the reasons for this paradox, as they researched why women find BS men more attractive than non-BS men. They suggested the novel explanation (called benevolence as a mate-preference hypothesis) that women have this preference because the BS behaviours and -attitudes can be perceived as signs of willingness to invest. To test this, they conducted five studies. All of them compared women's perceptions of BS men vs non-BS men, either focused on attitude (studies 1a, 1b, 3) or behaviour (studies 2a, 2b). In all the studies, participants were presented with a scenario about a man (either BS or non-BS) and rated him in several categories. Gul and Kupfer (2019) revealed that women preferred the BS-men in all studies while also rating them as more undermining and patronizing. They showed that this preference originates from the interpretation of their behaviour as willingness to invest (commit, provide, protect), especially in romantic contexts. Two of the studies (1a, 2a) showed that both women with high and low feminist attitudes prefer BS men as romantic partners (Gul & Kupfer, 2019). The findings of these studies highlight the paradox that women (even feminists) do recognise the harm of BS behaviour and attitudes but still prefer men who act this way because of the subjectively positive attributes (willingness to protect, provide, commit) related to it (Gul & Kupfer, 2019).

#### **Gaps in Research**

Although previous studies extensively researched BS, there are still gaps in knowledge about it. Research often focused on the outcomes and effects of BS, but further insights about people with benevolent sexist attitudes are missing. Gul and Kupfer (2019) found that women find BS men more attractive despite them being more undermining and patronizing because of their willingness to invest (protect, provide, commit). However, it is unclear why BS men are perceived as more undermining (Dardenne et al., 2007; Gul & Kupfer, 2019) and patronizing (Gul & Kupfer, 2019). The reasons for this need to be examined by replicating and extending Gul and Kupfer's (2019) study.

Further, as Gul and Kupfer's (2019) study included mainly participants from the UK, it is unclear whether the results also apply to other samples, as values and beliefs about sexism and how it is perceived can vary for every country and society. A study with German female participants also already indicated that they prefer BS men over non-BS men (Bohner et al., 2010). This will be expanded in the current study.

# Assumptions Why Women Could Perceive BS Men as More Undermining and Patronizing

To understand why women were found to perceive men with BS attitudes as more undermining and patronizing than those without (Gul & Kupfer, 2019), three assumptions will be discussed. First, women who recognise one kind of sexist attitude (in this case BS) in a man could also expect to find other elements of sexism (e.g., hostile sexism) in the same man. Both types of sexism share the belief that men are superior to women, which justifies the inequalities between them and supports traditional gender roles (Glick & Fiske, 1996, 1997). More specifically, research shows that BS and HS are positively correlated (Glick & Fiske, 1997). Based on this, women may assume that men with BS attitudes also hold HS beliefs. As HS is more direct and overt, this assumption can contribute to the perception of men as being more undermining and patronizing.

Another assumption why women perceived BS men as more undermining and patronizing in Gul and Kupfer's (2019) studies is that they could have related it to low values of gender egalitarianism. BS beliefs are considered unacceptable in gender-egalitarian environments (Glick & Fiske, 1997). People who hold gender egalitarian values are more likely to recognise BS beliefs as problematic than people with less gender-egalitarian attitudes and are therefore more likely to reject BS behaviour (Glick & Fiske, 2001a). In line with that, BS attitudes were found to be positively related to anti-egalitarian views for women but not in men (Glick & Fiske, 1997). Still, because this study is about the women's point of view, this suggests that women could perceive BS men as less gender-egalitarian than non-sexist men.

Another potential reason why women may have perceived BS men to be more patronizing and undermining in Gul and Kupfer's (2019) studies is that perhaps women attributed more jealousy and hence more controlling behaviours to these men in cases of relationship conflicts. Previous research showed that BS men are perceived as more willing to

commit than non-BS men (Gul & Kupfer, 2019). Studies about jealousy imply that more committed men are also more jealous when a conflict or difficult situation occurs in their relationship (Rydell et al., 2004). Another study shows that the more committed a couple becomes, the more jealousy is expressed (Aune & Comstock, 1997). This jealous behaviour could also be perceived as undermining or patronizing by the women, which leads to the assumption that BS men are also thought to be more jealous in relationship conflicts.

### **The Present Research**

The present study aims to replicate Gul and Kupfer's (2019) study 1b and extend it to understand why women rate BS men as more undermining and patronizing. In contrast to the original study, the current research includes primarily German participants and does include not only heterosexual women but also bisexual women. The phenomenon is investigated in a romantic context to confirm the mate preference hypothesis (Gul & Kupfer, 2019). The participants' feminist attitudes will be measured to investigate whether they influence how attractive the women rate the men. Next to that, participants will be asked to what extent they perceive a BS man to hold HS attitudes, gender-egalitarian beliefs and other traits related to mate guarding (jealousy in cases of conflicts).

This results in the following hypotheses:

H1: Women will rate men with BS attitudes, compared to men with non-BS attitudes as more attractive and more willing to protect, provide and commit, despite their stronger patronizing and undermining behaviours.

H2: Both women with high and low feminist attitudes will rate men with BS attitudes as more attractive than men with non-BS attitudes.

H3: Women expect men with BS attitudes, compared to men with non-BS attitudes to hold stronger HS attitudes.

H4: Women will rate men with BS attitudes, compared to men with non-BS attitudes as less gender egalitarian.

H5: Women will rate men with BS attitudes, compared to men with non-BS attitudes as more jealous in relationship conflicts.

### Methods

## **Participants**

In total, 185 participants were recruited online, either via the platform "SONA Systems" (n = 70), where each participant received 0.25 credit points, or by individual acquisition through the researcher, for example, via social media (n = 115). Only women were included in the study because of its purpose that women rate their perception of men. The participants had to be 18 years or older and romantically interested in men for the same reasons. Other than that, they did not have to meet any requirements. 182 participants approved the informed consent, 144 completed the entire questionnaire, and 141 participants passed the attention check question. Excluding participants who did not meet the inclusion criteria (female, heterosexual or bisexual, 18 years or older) lead to a total sample size of 133 female participants ( $M_{age} = 24.44$ , SD = 8.81) who took part in this study. 51.9% of the participants were allocated to the BS-attitude scenario, and 48.1% to the non-BS scenario. 67.7% of the participants were German, 9% were Dutch, 6.7% were American, and 16.5% had other nationalities. 79.7% of the participants were heterosexual, and 20.3% were bisexual<sup>2</sup>. 70.7% achieved a high school degree, 4.5% completed vocational training, 17.3% had a bachelor's degree, and 7.5% a master's degree. According to a post-hoc power analysis, this sample had 95.8% power for a medium effect size (Cohen's f = .32).

### **Procedure and Design**

The study was a cross-sectional experimental study with one factor and a two-level (attitude-type: BS vs non-BS) between factorial design. Participants were randomly assigned to one of the two experimental conditions (BS or non-BS).

Each participant filled out the questionnaire (see Appendix A) online in one session. The experiment had a duration of approximately 15 to 20 minutes. Before starting the data collection, the study was approved by the Ethics Committee BMS / Domain Humanities and Social Sciences of the University of Twente. After giving consent and answering demographic questions (*age, gender, nationality, sexuality, education*), participants of the study were shown a scenario of a man that showed either typical BS or non-BS attitudes toward women. These BS and non-BS romantic partner profiles were also used in study 1b of Gul and Kupfer (2019). After reading the scenario, the participants answered the dependent variables by indicating how they perceived the described man in several aspects and characteristics and answered questions about their own feminist attitudes.

<sup>&</sup>lt;sup>2</sup> No significant differences were found between sexualities during analysis, unless specifically stated

### Profiles

Both scenarios presented to the participants were very similar in wording and writing style. Only the attitudes were adapted accordingly (non-BS scenario: "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. He feels that it is possible to be truly complete as a person without the love of a woman, especially if one is personally accomplished. He is convinced that neither sex is superior with respect to purity or moral sensibility. He thinks that women should not be cherished or protected by men any more than men should be cherished or protected by women. He doesn't think that a woman should necessarily be set on a pedestal by her man. In case of a disaster or emergency situation, he thinks that a person's sex should not be a factor determining who is helped first.". BS scenario: "Mark firmly believes that people cannot be truly happy in life without being romantically involved with a member of the other sex. He feels that no matter how accomplished a man is, he is not truly complete as a person without the love of a woman. He is convinced that, in general, women are more pure than men, and they tend to have a superior moral sensibility. He thinks that women should be cherished and protected by men. He thinks that a woman should be set on a pedestal by her man. In case of a disaster or emergency situation, he thinks that women should be helped before men."). All materials of the survey were in English.

#### Measures

Most questions were derived from the previous study 1b (Gul & Kupfer, 2019). Items measuring *perceived warmth, perceived relationship interest, perceived willingness to provide, perceived willingness to protect, perceived willingness to commit, perceived attractiveness, perceived patronizing manner,* and *perceived undermining manner* were also the same as in the replicated study (Gul & Kupfer, 2019).

### Perceived warmth (control variable)

Perceived warmth of the men was used as a control variable to ensure that attractiveness is not only higher in BS men because of this variable. To measure the perceived warmth of the men, three items were included ("*How warm would you find Mark to be*?", "*How friendly would you find Mark to be*?", "*How likeable would you find Mark to be*?") ( $\alpha = .83$ ). The questions were answered on a 7-point Likert scale, ranging from 1 (*not at all*) to 7 (*very*) and 4 (*somewhat*).

### Perceived relationship interest (control variable)

Perceived relationship interest was also used as a control variable to show that women find men attractive beyond this criterion. The items *"How interested would Mark be in*"

having a relationship if he met the right person?" and "How interested is Mark in having relationships with women?" were included to measure the perceived relationship interest of the men ( $r_s = .65$ ). The questions were answered on a 7-point Likert scale, ranging from 1 (not at all) to 7 (very) and 4 (somewhat).

### Perceived willingness to provide

To measure how the participants perceive the men's willingness to provide, three items were used ("*How generous do you think Mark would be as a romantic partner*?", "*How selfish do you think Mark would be as a romantic partner*?", "*How helpful do you think Mark would be towards you*?") ( $\alpha = .77$ ). The second item had to be reverse coded for data analysis. The questions were answered on a 7-point Likert scale, ranging from 1 (*not at all*) to 7 (*very*) and 4 (*somewhat*).

### Perceived willingness to protect

Three questions measured how the participants rated Mark's willingness to protect ("*How vulnerable would you feel with Mark?*", "*How safe would you feel with Mark?*", "*How cared for would you feel with Mark?*"). Since the Cronbach's alpha was too low ( $\alpha = .59$ ), an inter-item correlation was computed. One item with a low correlation was deleted ("*How vulnerable would you feel with Mark?*") for further analysis, and the reliability increased ( $r_s = .66$ ). The first item had to be reverse coded for data analysis. The questions were answered on a 7-point Likert scale, ranging from 1 (*not at all*) to 7 (*very*) and 4 (*somewhat*).

### Perceived willingness to commit

Three items measured the extent to which participants perceived the men as willing to commit ("*How dependable do you think Mark would be as a romantic partner?*", "*How loyal do you think Mark would be as a romantic partner?*", "*How committed do you think Mark would be as a romantic partner?*", "*How committed do you think Mark would be as a romantic partner?*") ( $\alpha = .72$ ). The questions were answered on a 7-point Likert scale, ranging from 1 (*not at all*) to 7 (*very*) and 4 (*somewhat*).

### Perceived attractiveness

To measure how attracted the participants were to the man in the scenario, they were asked "*How attractive would you find Mark?*" and "*Would Mark be a good boyfriend/husband?*" ( $r_s = .77$ ). The questions were answered on a 7-point Likert scale, ranging from 1 (*not at all*) to 7 (*very*), and 4 (*somewhat*).

## Perceived patronizing manner

To determine how patronizing participants rated Mark, three items were included ("How patronizing do you think Mark would be towards you?", "How controlling do you think Mark would be towards you?", "How dominating do you think Mark would be towards *you?*") ( $\alpha = .94$ ). The questions were answered on a 7-point Likert scale, ranging from 1 (*not at all*) to 7 (*very*) and 4 (*somewhat*).

### Perceived undermining manner

Three items were included to measure how undermining participants rated the men's behaviour ("*How inferior do you think Mark would make you feel?*", "*How powerless do you think Mark would make you feel?*", "*How incompetent do you think Mark would make you feel?*", "*How incompetent do you think Mark would make you feel?*") ( $\alpha = .94$ ). The questions were answered on a 7-point Likert scale, ranging from 1 (*not at all*) to 7 (*very*) and 4 (*somewhat*).

### Perceived jealousy attributed to the man

Eight questions about *perceived jealousy attributed to the men* were included. These items were derived from the Multidimensional Jealousy Scale (MJS) by Pfeiffer and Wong (1989). Not the entire scale was used, but only items from the 'emotional' subscale ( $\alpha = .92$ ). Participants were presented with the instruction: "*Imagine that you are in a romantic relationship with Mark… Please indicate the degree to which you think Mark would emotionally react to following situations?*". Example items were: "*If you showed a great deal of interest or excitement in talking to another man*", "*If you hugged and kissed another man*", "*If some other man was trying to get close to you all the time*"). They were answered on 7-point Likert scales ranging from 1 (*not at all*) to 7 (*very*) and 4 (*somewhat*). Participants answered the items not according to their own values but how they expected the person in the scenario they read to answer.

### Perceived hostile sexism attributed to the man

Next to that, a *hostile sexism* questionnaire with 11 items (e.g., "Women are too easily offended", "Women seek special favours under guise of equality", "Women fail to appreciate what men do for them") was added ( $\alpha = .90$ ), which was derived from the ambivalent sexism inventory by Glick and Fiske (1996). These items were answered on a 6-point Likert scale ranging from 1 (*he would strongly disagree*) to 6 (*he would strongly agree*). Two of the items had to be reverse coded for data analysis. Participants answered the items according to how they expected the men in the scenario they read to answer.

## Perceived gender egalitarianism attributed to the man

Next, to measure *perceived gender egalitarianism attributed to the man*, seven items were taken from two existing questionnaires ( $\alpha = .94$ ). Questions were derived from the *husband's gender egalitarianism scale* by Wilcox and Nock (2006) (e.g., "*Preschool children are likely to suffer if their mother is employed*", "*It is much better for everyone if the man earns the main living and the woman takes care of the home and family*") and from the

Women as mothers AND working mothers AND contributing to income domains questionnaire by McDaniel (2008) (e.g., "A working mother can establish as warm a relationship with her child as a woman who does not work"). These items were answered on a 6-point Likert scale ranging from 1 (*he would strongly disagree*) to 6 (*he would strongly agree*). Three items had to be reverse coded for data analysis. Participants answered the items how they expected Mark to answer.

### Participant's feminist attitudes

Lastly, participants answered the same *feminism* questionnaire about their own values, as in the study of Gul and Kupfer (2019). Namely, the 18-item Feminist Attitudes and Ideology Questions by Koyama et al. (2004) ( $\alpha = .84$ ) (e.g., "When they go out, a man and a woman should share dating expenses if they both have the same income", "Both husband and wife should be equally responsible for the care of their children"). For this last questionnaire, a 7-point Likert scale ranging from 1 (*strongly agree*) to 7 (*strongly disagree*) and 4 (*neither agree nor disagree*) was used. Five of the items had to be reverse coded for data analysis. An attention check question was implemented in the questionnaire to ensure a good quality of the collected data.

## **Data Analysis**

The data were analysed in SPSS. After the dataset has been prepared, including deleting missing values and recoding the necessary items, descriptives and frequencies were computed for the demographics. Descriptives (M and SD) for the dependent variables were computed, separated by scenario/condition. Afterwards, to present the pattern in the data, correlations between the dependent variables (*perceived warmth, perceived relationship interest, perceived willingness to provide, perceived willingness to protect, perceived willingness to commit, perceived attractiveness, perceived patronizing manner, perceived undermining manner, perceived jealousy attributed to the man, perceived hostile sexism attributed to the man, perceived gender-egalitarian attitudes attributed to the man, participant's feminist attitude) were calculated.* 

To test hypothesis 1 (Women will rate men with BS attitudes, compared to men with non-BS attitudes as more attractive and more willing to protect, provide and commit, despite their stronger patronizing and undermining behaviours), six one-way between subject ANOVAs were conducted with the men's *attitude (BS or non-BS)* as the independent variable and each of the following variables as the dependent variables: *perceived willingness to protect, perceived willingness to commit, perceived patronizing manner, perceived undermining manner, perceived attractiveness*. In all cases, it

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was controlled for the covariates *perceived warmth* and *perceived relationship* to test if women in the study rate the men's characteristics independently from these aspects.

To test hypothesis 2 (Women with both high and low feminist attitudes will rate men with BS attitudes as more attractive than men with non-BS attitudes), it was tested whether participant's feminist attitudes have a moderating effect on the perceived attractiveness of the men in the scenarios. For this, a moderation analysis was performed by using the Process macro (Model 1; Hayes, 2017). The type of *attitude (BS or non-BS)* was used as the independent variable, *perceived attractiveness* as the dependent variable, and *participants' feminist attitudes* as the moderating variable. A 95% confidence interval was used, with 10000 bootstrap resamples.

To test hypothesis 3 (Women expect men with BS attitudes, compared to men with non-BS attitudes to hold stronger HS attitudes), a one-way between-subject ANOVA was conducted with the type of *attitude (BS or non-BS)* as the independent variable and *perceived hostile sexism attributed to the man* as the dependent variable. It was controlled for the covariates *perceived warmth* and *perceived relationship interest*.

For hypothesis 4 (Women will rate men with BS attitudes, compared to men with non-BS attitudes as less gender-egalitarian), a one-way between-subject ANOVA was conducted with the type of *attitude (BS or non-BS)* as the independent variable and *perceived gender-egalitarian attitudes attributed to the man* as the dependent variable. It was controlled for the covariates *perceived warmth* and *perceived relationship interest*.

To test hypothesis 5 (Women will rate men with BS attitudes, compared to men with non-BS attitudes as more jealous in relationship conflicts), a one-way between-subject ANOVA was conducted with the type of *attitude (BS or non-BS)* as the independent variable, and *perceived jealousy attributed to the man* as the dependent variable. It was controlled for the covariates *perceived warmth* and *perceived relationship interest*.

#### Results

## Descriptives

In Table 1, means and standard deviations of the dependent variables about how women perceived men, separated by condition, are displayed. Tables 2 and 3 show the correlations between the dependent variables, separated by condition and Table 4 shows these correlations for the entire sample. Table 5 shows the means and standard deviations of participants' feminist attitudes by sexuality. Note that *perceived attractiveness* for the man was positively related to *willingness to provide, commit, and protect.* At the same time, *perceived attractiveness* was negatively correlated with *perceived undermining and patronizing behaviour*, as well as *perceived jealousy attributed to the man* and *perceived hostile sexism attributed to the man*. This was the case for both conditions separately and the whole sample (Table 2, 3, 4). Despite the positive attributions (more willing to protect, provide, commit) women in this study had about BS men, they still rated the non-BS men as more attractive (Table 1).

## Table 1

	Attitud	е Туре
-	BS	Non-BS
Ratings of the male target	M (SD)	M (SD)
Perceived warmth	4.80 (1.20)	5.04 (1.09)
Perceived willingness to provide	5.30 (1.21)	4.18 (1.15)
Perceived willingness to protect	5.06 (1.43)	4.16 (1.32)
Perceived willingness to commit	5.35 (1.11)	4.22 (1.23)
Perceived attractiveness	3.59 (1.52)	4.48 (1.43)
Perceived patronizing manner	5.40 (1.39)	2.47 (1.22)
Perceived undermining manner	4.86 (1.47)	2.30 (1.17)
Perceived relationship interest	6.32 (.99)	4.80 (1.13)
Perceived jealousy attributed to the man	6.21 (.63)	4.85 (.64)
Perceived hostile sexism attributed to the man	3.93 (.98)	3.31 (1.01)
Perceived gender egalitarianism attributed to the man	3.08 (.93)	5.61 (.56)

Mean Scores and Standard Deviations of Dependent Variables by BS Condition (N=133)

Note. BS condition: n=68; non-BS condition: n=64. Standard deviation is indicated in parentheses. BS = benevolent sexism.

# Table 2

# Correlations between dependent variables - BS Attitude (n = 70)

	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	12.
1. Perceived warmth	-	.35**	.61**	.56**	.49**	.66**	42**	34**	15	49**	.37**	30*
2. Perceived relationship interest		-	.35**	.48**	.42**	.19	13	20	.00	20	.08	.20
3. Perceived willingness to provide			-	.68**	.66**	$.50^{**}$	45**	29*	13	55**	.34**	25*
4. Perceived willingness to protect				-	.63**	.62**	49**	39**	08	47**	.31**	23*
5. Perceived willingness to commit					-	.40**	31**	33**	00	39**	.20	.02
6. Perceived attractiveness						-	55**	49**	16	57**	.35**	25*
7. Perceived patronizing manner							-	.61**	.31**	.64**	56**	.38**
8. Perceived undermining manner								-	.41**	.66**	57**	.04
9. Perceived jealousy attributed to the man									-	.52**	57**	.29*
10. Perceived hostile sexism attributed to the man										-	<b></b> 71 <sup>**</sup>	.37**
11. Perceived gender egalitarianism											-	31**
12. Participant's feminist attitudes												-

\**p* < .05, \*\**p* < .01

# Table 3

# Correlations between dependent variables – non-BS Attitude (n = 64)

	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	12.
1. Perceived warmth	-	.34**	.69**	.75**	.56**	.69**	45**	40**	03	28*	.27*	.17
2. Perceived relationship interest		-	.34**	.32**	.46**	.56**	32*	25*	03	37**	.18	01
3. Perceived willingness to provide			-	.70**	.48**	.58**	49**	40**	22	54**	$.28^{*}$	.12
4. Perceived willingness to protect				-	.57**	.77**	42**	43**	.09	43**	.34**	.21
5. Perceived willingness to commit					-	.59**	37**	46**	.11	29*	.11	.20
6. Perceived attractiveness						-	38**	43**	.06	60**	.31*	.21
7. Perceived patronizing manner							-	.65**	.24	.51**	46**	07
8. Perceived undermining manner								-	08	.56**	53**	28*
9. Perceived jealousy attributed to the man									-	.20	.16	.11
10. Perceived hostile sexism attributed to the man										-	31*	21
11. Perceived gender egalitarianism											-	.07
12. Participant's feminist attitudes												-

\**p* < .05, \*\**p* < .01

# Table 4

*Correlations between dependent variables – all conditions (N=133)* 

	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	12.
1. Perceived warmth	-	.22*	.53**	.57**	.42**	.67**	37**	33**	14	40**	.26**	11
2. Perceived relationship interest		-	.50**	.49**	.58**	.12	.32**	.28**	.42**	05	45**	.14
3. Perceived willingness to provide			-	.72**	.65**	.33**	.05	.09	.21*	34**	23**	04
4. Perceived willingness to protect				-	.65**	.53**	05	06	.23**	31**	11	02
5. Perceived willingness to commit					-	.29**	.13	.06	.35**	16	30**	.13
6. Perceived attractiveness						-	52**	52**	25**	62**	.41**	08
7. Perceived patronizing manner							-	.82**	.67**	.59**	82**	.20*
8. Perceived undermining manner								-	.61**	.63**	80**	.01
9. Perceived jealousy attributed to the man									-	.45**	73**	.21*
10. Perceived hostile sexism attributed to the man										-	53**	.14
11. Perceived gender egalitarianism											-	18*
12. Participant's feminist attitudes												-

\**p* < .05, \*\**p* < .01

### Table 5

Mean Scores and Standard Deviations of Participants' Feminist Attitudes by Sexuality (N=133)

Sexuality	Participants' feminist attitudes
Heterosexual	5.79 (.74)
Bisexual	6.09 (.53)
Total	5.86 (.71)

Note. Standard deviation is indicated in parentheses.

### Hypothesis 1

As expected, the women who participated in this study rated men with BS attitudes, compared to men without BS attitudes, as more willing to provide, F(1, 131) = 30.65, p < .001,  $\eta_p^2 = .19$ , more willing to protect, F(1, 131) = 14.5, p < .001,  $\eta_p^2 = .10$ , more willing to commit F(1, 131) = 31.13, p < .001,  $\eta_p^2 = .19$ , more behaving in a patronizing manner F(1, 131) = 165.75, p < .001,  $\eta_p^2 = .56$ , and more behaving in a undermining manner F(1, 131) = 122.04, p < .001,  $\eta_p^2 = .48$ ). Participants rated BS men as less attractive than men without BS attitudes F(1, 131) = 12.05, p = .001,  $\eta_p^2 = .08$  (see Table 4 for means). All these findings did not change when controlling for perceived warmth and perceived relationship interest. Accordingly, the previous study (Gul & Kupfer, 2019) could only be partly replicated, and hypothesis 1 is partially supported.

### Hypothesis 2

The moderation analysis that was conducted to test whether participants' feminist attitudes influence how attractive women rate BS and non-BS men revealed that *participant's feminist attitudes* were negatively related to perceived attractiveness of the men [b = -1.46, 95% *CI*(-2.51; -.39), p = .007]. The interaction effect of feminism and the condition (BS or non-BS men) was also significant [b = .96, 95% *CI*(.24; 1.68), p = .009]. The conditional effect of *attitude* (*BS or non-BS*) on *perceived attractiveness* showed corresponding results. At low moderation, the effect was not significant [*conditional effect* = .31, 95% *CI*(-.35; .96), p = .353]. At middle moderation, the effect was significant [*conditional effect* = .98, 95% *CI*(.47; 1.49), p < .001]. At high moderation, the effect was the highest and significant [*conditional effect* = 1.60, 95% *CI*(.86; 2.33), p < .001]. These results identified feminist attitudes as a positive moderating effect on the perceived attractiveness of BS or non-BS men. Only women with moderate and high feminist attitudes found men with BS attitudes

less attractive than men without these attitudes. For women with lower feminist attitudes, perception of attractiveness did not differ in both conditions. Accordingly, hypothesis 2 must be rejected.

### **Hypothesis 3**

As expected, women attributed more hostile sexism attitudes to men with BS attitudes, compared to men without these attitudes F(1, 131) = 12.90, p < .001,  $\eta_p^2 = .09$  (see Table 4 for the means). These results were the same when controlling for *perceived warmth* and *perceived relationship interest*. Therefore, hypothesis 3 can be accepted.

## Hypothesis 4

In line with what was predicted, women in this study perceived men with BS attitudes, compared with non-BS men, as having less gender-egalitarian attitudes F(1, 132) = 354,7, p < .001,  $\eta_p^2 = .73$  (see Table 4 for the means). These results did not change when controlling for *perceived warmth* and *perceived relationship interest*, so hypothesis 4 can be accepted.

# **Hypothesis 5**

As expected, women attributed more jealousy to BS men than to men without BS attitudes F(1, 131) = 150.16, p < .001,  $\eta_p^2 = .53$  (see Table 4 for the means). These results were the same when controlling for *perceived warmth* and *perceived relationship interest*. Accordingly, hypothesis 5 will be accepted.

#### Discussion

Altogether, Gul and Kupfer's (2019) study's main findings could be replicated and supported by the current study. However, there were some discrepancies which will be discussed more in detail. The study aimed to replicate Gul and Kupfer's (2019) findings with a different sample (mostly German women), which showed that women find men with BS attitudes more attractive and more undermining and patronizing. It was also investigated what other inferences women make about BS men to understand why they perceive BS men as more patronizing and undermining. Based on previous research, it was hypothesised that hostile sexism of the man, jealous behaviour of the man in relationship conflicts, and perceived gender-egalitarian beliefs of the man could influence why women perceive BS men this way. Feminist attitudes of the woman were expected not to influence the rated attractiveness of the man.

The first hypothesis (*Women will rate men with BS attitudes, compared to men with non-BS attitudes as more attractive and more willing to protect, provide and commit, despite* 

*their stronger patronizing and undermining behaviours*) was partially supported, as most findings were in line with the previous study (Gul & Kupfer (2019). This includes that women in this study rated men with BS attitudes as more willing to provide, protect and commit, and more behaving in a patronizing and undermining manner, compared to non-BS men. The only result that could not be replicated is that women perceive BS men as more attractive, even when it was controlled for the effect of perceived warmth and perceived interest in a relationship. This finding is also contradicting most previous research. Prior studies found that women prefer BS-men over both HS-men (Bohner et al., 2010; Montañés et al., 2013) and non-sexist men (Bohner et al., 2010; Gul & Kupfer, 2019; Montañés et al., 2013). However, one study which examined which kind of men women prefer found that women generally find gender-egalitarian men most attractive (compared to BS and HS men), and only women who score high on attachment anxiety find BS men most attractive (Cross & Overall, 2018). The latter is in line with the current research, which also found that women generally find non-BS men more attractive than BS men.

In both, Gul and Kupfer's (2019) and the present study, women rated BS men as more willing to provide, commit and protect. Interestingly, these characteristics were positively correlated with attractiveness in both studies. At the same time, women rated BS men as more patronizing and undermining, which were both negatively correlated with attractiveness. These findings are also the same as in the replicated study (Gul & Kupfer, 2019).

Regarding hypothesis 2 (*Women with both high and low feminist attitudes will rate men with BS attitudes as more attractive than men with non-BS attitudes*), the current study found that women with moderate and high feminist attitudes find BS men less attractive than non-BS men, and women with low feminist attitudes find both men equally attractive. Gul and Kupfer's (2019) study contradicts these results, as they showed that both low and high feminists rate men with BS attitudes as more attractive in a relationship context. The present study also contradicts Bohner et al. (2010), who found that women with high feminist values do not find BS men less attractive.

For hypothesis 3 (*Women expect men with BS attitudes, compared to men with non-BS attitudes to hold stronger HS attitudes*), results indicate a correlation between men holding BS attitudes and HS attitudes. The study showed that if men are benevolent sexist, women also expect them to be hostile sexist. This supports the ambivalent sexism inventory of Glick and Fiske (1997). Even though sexism is divided into HS and BS, they still belong to the same construct and are connected (Glick & Fiske, 1997). Accordingly, these two types are

expressed differently but may have similar underlying beliefs and attitudes (that women and men differ in terms of characteristics, talents, strengths, and more). Even if BS may have good intentions, it is still sexist. As women expect BS men to also have HS attitudes, this means that they do perceive BS as sexist and discriminative. This aligns with Glick and Fiske (1996), who claim that both HS and BS are harmful to women.

Results for hypothesis 4 (*Women will rate men with BS attitudes, compared to men with non-BS attitudes as less gender-egalitarian*) confirm our expectations. One could assume these results already by looking at the definitions of the concepts. To be gender-egalitarian means to make no differences between the genders and treat everyone the same. This contradicts the definition of (benevolent) sexism, which includes behaviour favouring or discriminating against people by assuming that a person has specific characteristics just because of their gender. One could even view these two constructs as mutually exclusive, as one cannot treat everyone equally but then giving some people more privileges at the same time. This could be why women rated BS men as less gender-egalitarian than non-BS men. Glick and Fiske (1997) found a positive correlation between BS attitudes and anti-egalitarian views for women but not for men. However, as women in this study made assumptions about men, the results show how women think about them, not the men's actual behaviour. Therefore, the results of this study are in line with previous research.

Regarding hypothesis 5 (Women will rate men with BS attitudes, compared to men with non-BS attitudes as more jealous in relationship conflicts), the expected results were found, namely that BS men are more jealous than non-BS men. Previous studies did not suggest a relation between jealous behaviour and BS yet. However, studies showed that commitment is related to more jealousy (Aune & Comstock, 1997; Rydell et al., 2004). The current study shows that BS men are more willing to commit than non-BS men, which aligns with Gul and Kupfer's (2019) previous research. Positive moderate correlations between willingness to provide, protect, commit (summarised as willingness to invest) and perceived jealousy were found in this study, which also contributes to the result. Perhaps, women believe that if having a relationship is very important for the man (as stated in the BS scenario presented to the participants), they also feel more threatened if they think their relationship is in danger and show more jealousy. Next, correlations between jealousy and both undermining and patronizing behaviour are positive and significant, but not for the non-BS condition. Perhaps, the expected behaviour of a jealous person is to be undermining and patronizing as an attempt to obtain control over the woman and the situation. However, these are correlational results, and thus one cannot infer causation.

### **Potential Explanations of the Unexpected Findings**

The findings in this study could be different than expected for multiple reasons. First, the result that participants found BS men less attractive could be due to the women having different priorities than women in previous studies. This means that trade-offs between the different attributes of BS men may have been different among the sample of German women: women in the current study may find the negative attributions (more undermining and patronizing) more important than participants in the prior study, and the subjectively positive characteristics (willing to commit, protect, provide) less important.

The finding that women expect BS men to be more hostile sexist, more jealous in relationship conflicts, and less gender-egalitarian, could also contribute to the findings that BS men are perceived as less attractive. The first two variables have strong negative correlations with the man's perceived attractiveness, whereas gender-egalitarianism is positively correlated with perceived attractiveness. The variables perceived hostile sexism and perceived jealousy in relationship conflicts are both positively correlated with perceived undermining and patronizing manner. Perceived gender egalitarianism of the man is strongly negatively correlated with these two variables. This suggests that hostile sexism and jealousy are part of this undermining and patronizing behaviour and could contribute to the reasons why women perceive BS men this way. In line with that, perceived gender-egalitarianism was negatively correlated with perceived undermining and patronizing and patronizing and patronizing behaviour. This shows that men who seem to be less gender-egalitarian are perceived as more likely to behave in these undermining and patronizing manners, which are also related to BS.

Next, differences between Gul and Kupfer's (2019) study could be due to changes in society. Feminist or gender-egalitarian values become more and more popular (Huang et al., 2019). People with higher feminist attitudes may have more awareness of sexism and the associated problems (Morgan, 1996; Swim et al., 2005) and may therefore find benevolent sexist men less attractive. In line with that, as attention to problems around sexism increases, so does its disapproval (Becker & Swim, 2011). As awareness about sexism constantly grows, the same could apply to the rejection of it, which may be why feminism was a moderator of perceived attractiveness in this study.

Another factor that could determine whether feminist attitudes influence the perceived attractiveness of men could be the extent to which feminist values are internalized. When answering a questionnaire about feminism, the own values may seem very clear. However, in the case of BS, which can be very subtle, someone who did not truly internalize these values yet might not always act accordingly. If more people have stronger feminist attitudes, they

may have internalized them better now than they have a few years ago, which could explain why women with moderate and high feminist attitudes found BS men less attractive in this study, but not in previous studies.

Another reason for the differences could be that this sample differed from previous research in terms of sexuality. In contrast to a lot of previous research, not only heterosexual women but also bisexual women were included. In this sample, bisexual women had higher feminist attitudes, showing that these groups are more aware of gender inequalities, perhaps because they experience injustice because of their identity themselves.

### **Theoretical Contributions**

Three significant contributions to the research of benevolent sexism can be drawn from this study. First, in contrast to most previous research, this study found that women find non-BS men more attractive than BS men. Previous studies found the opposite (Bohner et al., 2010; Gul & Kupfer, 2019) and described it as a trade-off between positive and negative attributions of BS men (Gul & Kupfer, 2019). Results of the current study suggest that women put a different focus on what is essential for them in terms of attractiveness than women did in the past.

The second crucial theoretical contribution is the finding that feminist attitudes of women influence the perceived attractiveness of a man. The replicated study (Gul & Kupfer, 2019) found the opposite. However, this study found that for women with moderate and high feminist attitudes, non-BS attitudes are an important contributor to perceived attractiveness in a man.

Third, the understanding of the concept of benevolent sexism was broadened, as new characteristics that are associated with BS attitudes were found. It was shown that women expect BS men to hold more HS attitudes, being more jealous in relationship conflicts, and being less gender-egalitarian than non-BS men.

## Strengths, Limitations, and Future Research

In contrast to most studies, the focus is not on BS (and non-BS) men's actual attitudes but on how women perceive and expect their attitudes to be. This is especially interesting because women are the victims of (benevolent) sexism, and it is very meaningful to understand their perception of BS in order to understand the phenomenon as a whole.

An important limitation is that the questionnaires used to measure hostile sexism or gender egalitarianism are already relatively old and not entirely in line with today's average society. Only a few fitting items were chosen to counteract this, and not the entire questionnaires were used. Nevertheless, it would be better to use questionnaires that reflect current society better. However, no other well-substantiated questionnaires which are more recent are available, so they would need to be developed first.

Similar to that, one must always consider that the scenarios on which the questionnaires were based can never reflect the entire personality of a person. Therefore, participants only had little information about both the BS man and the non-BS man, and everyone might have different associations with these short descriptions. Generally, the scenarios represented typical BS or non-BS attitudes, but how the participants visualised this person will differ. The scenarios presented to the participants in this study were relatively short. They could be extended further to include more information, for example, how Mark thinks about a particular situation (within a relationship). By this, the scenario would be more tailored to the romantic context and more tangible for the participants.

In contrast to the replicated study 1b (Gul & Kupfer, 2019), in this study, no direct mediation tests were conducted regarding whether perceived willingness to protect, provide and commit, and behaving in a patronizing and undermining manner affect how women rate attractiveness of BS and non-BS men. Instead, these relationships were simply investigated by correlations between these variables. However, a mediation analysis would have led to more precise results and would have strengthened the findings.

Another critical limitation concerns the participants of this study. Although they are already rather diverse in nationality, they are very homogenous in age and occupation. Most participants were relatively young and students. Since the study aimed to test the mate-preference hypotheses (Gul & Kupfer, 2019), only women that are attracted to men could be included. Nevertheless, this means that this study is rather heteronormative and restricted to a binary gender system. Obviously, sexism in relationships is mainly an issue in heterosexual relationships, so including other genders and sexualities would not be compatible with this study. However, future research could investigate how sexism can also influence dynamics in non-heterosexual relationships, as sexism does not only affect women.

As the results regarding feminism and its influence on the perception of men are still ambiguous, future research should focus on this. It is important to take the change of feminist attitudes in society into account when measuring this. One question that needs to be answered is if women with high feminist attitudes perceive men as more sexist in general (regardless of their actual sexist attitudes). This could be expected because of the higher awareness feminists have about gender-related inequalities. If this is the case, it raises the question of whether high feminists also suffer from more mental health problems than women with low feminist attitudes. Research suggests that women who are exposed to more sexism are more

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at risk to develop mental health problems (Barreto & Ellemers, 2005a; Klonoff et al., 2000). If feminists are more aware of the sexism they experience, it could be that they also suffer more from it. Furthermore, the reasons why BS men are expected to show more jealous behaviour need to be examined. Willingness to commit could be a mediator, but other aspects could also play a role. For example, the man's aggressiveness could be related to sexist attitudes or undermining and patronizing behaviour.

The result that women do not find BS men more attractive, which contradicts most previous research, also needs special attention in future research. More studies that focus on the perceived attractiveness of BS and non-BS men is needed. Due to changes in society and feminist attitudes becoming more and more important, it is not enough to rely on studies in the past. Other reasons for these differing results should also be investigated. For this, ethnicity and age should be taken into consideration.

### Conclusion

In total, the results of this study reveal more insight into the concept of BS and related attitudes. It became even more apparent that BS is a complex topic with many facets. Studies show how damaging it can be for women to experience BS, but at the same time, it can emerge out of good intentions. Because of this, it is necessary to educate people about the topic. It became clear that BS is closely linked to attitudes like HS, anti-egalitarianism, and jealousy. Contradicting to previous research, this study revealed that women do not find BS men more attractive and that the feminist attitudes of the women influence their preference of non-BS men. As these results suggest that women's behaviours are more in line with their feminist attitude than previously, it can be considered a fundamental shift towards a more sophisticated and educated society regarding feminism and gender equality. This is something future research should particularly focus on. Understanding the concept of BS and how it emerges, including all the nuances of attitudes that are related to it, can help to challenge gender injustice. Awareness of these problems is the first step for changing societal structures and achieving equality.

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# Appendices Appendix A – Questionnaire Women's Perception of Men (BS Attitudes)

### **Start of Block: Consent**

# Consent

PROJECT TITLE: Perceptions of Men's Attitudes

INVESTIGATORS: Melina Kugelmann (B.Sc. Psychology Student), and Dr. Pelin Gül, Department of Psychology, Health, and Technology, University of Twente, Netherlands.

PURPOSE: The purpose of this study is to advance our understanding of the many factors that influence how women perceive men's behaviour. You are being asked to participate in this study because you found this survey online or were asked to participate by one of the researchers or data collectors and because we are interested in these processes in a wide variety of people. We are seeking individuals who are at least 18 years old and attracted to men. If you are under 18, please do not participate.

PROCEDURES: If you agree to participate, you will be asked to answer several demographics (age, gender, nationality, and sexual orientation). Next, you will be asked to read a short scenario and answer questions regarding your thoughts about this scenario. Followingly, you will be asked to indicate your (dis-)agreeable with statements related to feminism. Finally, you will be provided with more details about this study. Your participation will last approximately 10-15 minutes. People who participate via SONA Systems will be compensated with 0.25 credits.

PARTICIPANT RIGHTS: Your participation in this study is completely voluntary. You are free to decline to participate, refuse to answer any individual questions, or withdraw from the study at any time without the need to give any reason.

RISKS AND BENEFITS: There are no known or anticipated risks associated with this study. Although this study will not benefit you personally, we hope that our results will add to the knowledge about factors influencing how men's attitudes are perceived by women.

CONFIDENTIALITY: Your responses are completely anonymous, and cannot be traced back to you because no personally identifying information such as names is asked in this

survey. The information you provide will not be disclosed to third parties, and they will be aggregated with the responses of other participants and examined for hypothesised patterns. Your anonymous responses will be used for scientific research into various aspects of personality and social psychology. Data from this study may be stored in an online repository and shared publicly to adhere to best practices in scientific transparency.

ANONYMITY AND CONFIDENTIALITY: Your responses will be strictly anonymous; we will not be collecting or retaining any information about your identity. The information you provide will not be disclosed to third parties, and they will be aggregated with the responses of other participants and examined for hypothesised patterns. Data from this study will be stored in an online repository and shared publicly to adhere to best practices in scientific transparency.

QUESTIONS: For further information about this study, you may contact Dr. Pelin Gül, p.gul@utwente.nl, the person in charge of this research study, or write an email to **Melina Kugelmann**, m.n.kugelmann@student.utwente.nl. If you would like to talk with someone other than the researchers to discuss any problems or concerns, to discuss situations in the event that a member of the research team is not available, or to discuss your rights as a research participant, please contact the Ethical Review Committee of the Behavioral and Management Sciences Faculty, University of Twente, Netherlands, ethicscommittee-bms@utwente.nl.

CONSENT AND AUTHORISATION PROVISIONS: In order to continue with this survey, you have to agree with the aforementioned information and consent to participate in the study.

 $\bigcirc$  I agree to taking part in this study (1)

 $\bigcirc$  I do not agree to taking part in this study (2)

Skip To: End of Survey If PROJECT TITLE: Perceptions of Men's Attitudes INVESTIGATORS: Melina Kugelmann (B.Sc. Psychology S... = I do not agree to taking part in this study

AttentionInfo Attention: There will be attention check questions in this survey. They are there to ensure that participants read the information carefully and provide quality data. If you are paying attention to the questions and instructions, it is very easy to pass these checks.

# $\bigcirc$ Okay! (1)

**End of Block: Consent** 

**Start of Block: Demographics** 

Demographics First, we want to ask you a few questions about your background

Age What is your age (in years)?

# Gender What is your gender?

 $\bigcirc$  Male (1)

 $\bigcirc$  Female (2)

 $\bigcirc$  Non-binary / third gender (3)

O Prefer not to say (4) Sexuality **Which of the following best describes your sexual orientation?** 

 $\bigcirc$  Heterosexual (1)

 $\bigcirc$  Homosexual (2)

 $\bigcirc$  Bisexual (3)

 $\bigcirc$  Pansexual (4)

 $\bigcirc$  Asexual (5)

 $\bigcirc$  Other (6)

# Nationality Which of the following best describes your nationality?

 $\bigcirc$  Dutch (1)

O German (2)

 $\bigcirc$  Other (please specify) (3)

 $X \rightarrow X \rightarrow$ 

# Education What is your highest level of education that you've achieved?

 $\bigcirc$  No Degree (1)

 $\bigcirc$  Highschool (2)

 $\bigcirc$  Vocational Training (3)

 $\bigcirc$  Bachelor's Degree (4)

 $\bigcirc$  Master's Degree (5)

 $\bigcirc$  Doctorate Degree (6)

**End of Block: Demographics** 

**Start of Block: Instruction before Scenarios** 

Instruction

In the following screen, you will be presented with a scenario and a short profile about a man.

Please read the information very carefully, and try to imagine yourself in the scenario presented as vividly as possible.

Read the profile carefully because in the next pages you will be asked to respond to some questions and tell us about your impression of this man.

Remember that there are no right or wrong answers to the questions. Therefore, please answer the questions as sincerely as possible.

**End of Block: Instruction before Scenarios** 

### Start of Block: Manipulation - Romantic Partner Control (Non-Chivalrous) Situation

PartnerCon Imagine that you are currently single and you are interested in starting a relationship. You recently met with a single man, Mark, and he has expressed an interest in you. And you know that Mark is keen to have a serious relationship with the right person. You have gotten to know him and his attitudes quite a bit in the last few months, and you are thinking whether you would like to have Mark as a romantic partner.

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. He feels that it is possible to be truly complete as a person without the love of a woman, especially if one is personally accomplished. He is convinced that neither sex is superior with respect to purity or moral sensibility. He thinks that women should not be cherished or protected by men any more than men should be cherished or protected by women. He doesn't think that a woman should necessarily be set on a pedestal by her man. In case of a disaster or emergency situation, he thinks that a person's sex should not be a factor determining who is helped first.

Now we will ask you some questions regarding this person...

End of Block: Manipulation - Romantic Partner Control (Non-Chivalrous) Situation

#### Start of Block: Manipulation - Romantic Partner Chivalrous Situation

## PartnerBS

Imagine that you are currently single and you are interested in starting a relationship. You recently met with a single man, Mark, and he has expressed an interest in you. And you know that Mark is keen to have a serious relationship with the right person. You have gotten to know him and his attitudes quite a bit in the last few months, and you are thinking whether you would like to have Mark as a romantic partner.

Mark firmly believes that people cannot be truly happy in life without being romantically involved with a member of the other sex. He feels that, no matter how accomplished a man is, he is not truly complete as a person without the love of a woman. He is convinced that in general women are more pure than men and they tend to have a superior moral sensibility. He thinks that women should be cherished and protected by men. He thinks that a woman should be set on a pedestal by her man. In case of a disaster or emergency situation, he thinks that

# women should be helped before men.

# Now we will ask you some questions regarding this person...

End of Block: Manipulation - Romantic Partner Chivalrous Situation

**Start of Block: Dependent Variables** 



Warmth \${e://Field/Profile}\_\_\_\_\_

	1 (not at all) (1)	2 (2)	3 (3)	4 (somewhat) (4)	5 (5)	6 (6)	7 (very) (7)
How warm would you find Mark to be?							
	0	$\bigcirc$	$\bigcirc$	0	$\bigcirc$	0	$\bigcirc$
(Warmth_1) How friendly would you find Mark to be?							
	0	0	$\bigcirc$	$\bigcirc$	0	$\bigcirc$	0
(Warmth_2) How likeable would you find Mark to be? (Warmth_3)	0	0	$\bigcirc$	$\bigcirc$	0	$\bigcirc$	0

How do you think Mark would be towards you?
# [X; [ X→] X→

# Provide How do you feel Mark would be towards you?

	1 (not at all) (1)	2 (2)	3 (3)	4 (somewhat) (4)	5 (5)	6 (6)	7 (very) (7)
How generous do you think Mark would be as a romantic partner? (Provide_1)	0	0	0	0	0	0	0
How <u>selfish</u> do you think Mark would be as a romantic partner? (Provide_2)	0	0	$\bigcirc$	$\bigcirc$	$\bigcirc$	0	$\bigcirc$
How helpful do you think Mark would be towards you? (Provide_3)	0	0	$\bigcirc$	0	$\bigcirc$	0	0

Protect How would Mark make you feel?

	1 (not at all) (1)	2 (2)	3 (3)	4 (somewhat) (4)	5 (5)	6 (6)	7 (very) (7)
How <u>vulnerable</u> would you feel with Mark? (Protect_1)	0	0	0	0	0	0	0
How safe would you feel with Mark? (Protect_2)	0	0	0	$\bigcirc$	0	0	0
How cared for would you feel with Mark? (Protect_3)	0	$\bigcirc$	0	$\bigcirc$	$\bigcirc$	0	$\bigcirc$

Commit How do you think Mark would be towards you?	1 (not at all) (1)	2 (2)	3 (3)	4 (somewhat) (4)	5 (5)	6 (6)	7 (very) (7)
How dependable do you think Mark would be as a romantic partner? (Commit_1)	0	0	0	0	0	0	0
How loyal do you think Mark would be as a romantic partner? (Commit_2)	0	0	$\bigcirc$	$\bigcirc$	0	0	$\bigcirc$
How committed do you think Mark would be as a romantic partner? (Commit_3)	0	$\bigcirc$	$\bigcirc$	0	$\bigcirc$	0	$\bigcirc$

	1 (not at all) (1)	2 (2)	3 (3)	4 (somewhat) (4)	5 (5)	6 (6)	7 (very) (7)
How attractive would you find Mark? (Attract_1)	0	$\bigcirc$	0	0	$\bigcirc$	0	0
Would Mark be a good boyfriend/husband? (Attract_2)	0	0	0	0	0	0	0

# Attract What do you think about Mark as a mate?

# [X; [ X→ ] X→

# Patron How do you think Mark would treat you?

	1 (not at all) (1)	2 (2)	3 (3)	4 (somewhat) (4)	5 (5)	6 (6)	7 (very) (7)
How patronizing do you think Mark would be towards you? (Patron_1)	0	0	0	$\bigcirc$	0	0	0
How controlling do you think Mark would be towards you? (Patron_2)	0	$\bigcirc$	$\bigcirc$	0	$\bigcirc$	0	$\bigcirc$
How dominating do you think Mark would be towards you? (Patron_3)	0	0	$\bigcirc$	0	0	0	0

	1 (not at all) (1)	2 (2)	3 (3)	4 (somewhat) (4)	5 (5)	6 (6)	7 (very) (7)
How inferior do you think Mark would make you feel? (Underm_1)	0	0	0	0	0	0	0
How powerless do you think Mark would make you feel? (Underm_2)	0	0	$\bigcirc$	$\bigcirc$	0	0	$\bigcirc$
How incompetent do you think Mark would make you feel? (Underm_3)	0	0	$\bigcirc$	$\bigcirc$	$\bigcirc$	0	$\bigcirc$

# Underm How do you think Mark would make you feel?

	1 (not at all) (1)	2 (2)	3 (3)	4 (somewhat) (4)	5 (5)	6 (6)	7 (very) (7)
How interested would Mark be in having a relationship if he met the right person?							
	0	0	$\bigcirc$	$\bigcirc$	0	0	0
(Interest_1) How interested is Mark in having relationships with	0	0	$\bigcirc$	$\bigcirc$	$\bigcirc$	0	0
women? (Interest_2)							

RelInterest What do you think about Mark in terms of his interest in relationships?

End of Block: Dependent Variables

Start of Block: Likelihood of Mark to be jealous/mate guarding



Jealous \${e://Field/Profile} \_\_\_\_\_

Please try to answer the questions based on the information you have read about Mark

# even if you think the information you have is limited. You can go with your gut when answering the questions.

Imagine that you are in a romantic relationship with Mark....Please indicate the degree to which you think Mark would emotionally react to following situations?

	1 (very pleased) (1)	2 (2)	3 (3)	4 (neither pleased nor upset) (4)	5 (5)	6 (6)	7 (very upset) (7)
If you commented to Mark on how great looking a particular other man is. (Jealous_1)	0	0	0	0	0	0	0
If you showed a great deal of interest or excitement in talking to another man. (Jealous_2)	0	$\bigcirc$	0	$\bigcirc$	0	0	0
If you smiled in a very friendly manner to another man. (Jealous_3)	0	0	0	0	0	0	0

If some other man was trying to get close to you all the time. (Jealous_4)	0	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$
lf you flirted with another man. (Jealous_5)	0	0	$\bigcirc$	0	0	$\bigcirc$	0
If another man was dating you. (Jealous_6)	0	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$
If you hugged and kissed another man. (Jealous_7)	0	0	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$
If you work very closely with another man (in school or at her work). (Jealous_8)	0	0	$\bigcirc$	0	0	$\bigcirc$	0

End of Block: Likelihood of Mark to be jealous/mate guarding

Start of Block: Hostile Sexism



\_

HS \${e://Field/Profile}

Please try to answer the questions based on the information you have read about Mark even if you think the information you have is limited. You can go with your gut when answering the questions.

How would Mark think about these issues?

Please indicate the degree to which you think Mark would agree or disagree with each statement using the following scale:

- **1** = He would strongly disagree
- 2 = He would somewhat disagree
- **3** = He would slightly disagree
- 4 = He would slightly agree
- 5 = He would somewhat agree
- **6** = He would strongly agree

	He would strongly disagree (1)	He would disagree (2)	He would slightly disagree (3)	He would slightly agree (4)	He would agree (5)	He would strongly agree (6)
Women exaggerate problems at work (HS_1)	0	0	0	0	0	0
Women are too easily offended (HS_2)	0	0	0	$\bigcirc$	0	$\bigcirc$
Most women interpret innocent remarks as sexist (HS_3)	0	0	$\bigcirc$	$\bigcirc$	$\bigcirc$	0
When women lose fairly, they claim discrimination (HS_4)	0	$\bigcirc$	0	0	0	$\bigcirc$
Women seek special favors under guise of equality (HS_5)	0	0	0	0	0	$\bigcirc$
Feminists are making reasonable demands (HS_6)	0	$\bigcirc$	0	0	0	0
Feminists are not seeking more power than men (HS_7)	0	0	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$

Women seek power by gaining control over men (HS_8)	$\bigcirc$	0	0	$\bigcirc$	$\bigcirc$	0
Few women tease men sexually (HS_9)	$\bigcirc$	0	0	0	0	0
Once a man commits to a woman, she puts him on a tight leash (HS_10)	$\bigcirc$	0	0	0	0	0
Women fail to appreciate what men do for them (HS_11)	$\bigcirc$	0	0	$\bigcirc$	$\bigcirc$	0
End of Block: Host X X X X Egal \${e://Field/Profi						

Please try to answer the questions based on the information you have read about Mark even if you think the information you have is limited. You can go with your gut when answering the questions.

Now think about how Mark would think about these statement.

Please indicate the degree to which you think Mark would agree or disagree with each statement using the following scale:

- 1 = He would strongly disagree
- 2 = He would somewhat disagree
- 3 = He would slightly disagree
- 4 = He would slightly agree

- 5 = He would somewhat agree
- 6 = He would strongly agree

	He would strongly disagree (1)	He would disagree (2)	He would slightly disagree (3)	He would slightly agree (4)	He would agree (5)	He would strongly agree (6)
Preschool children are likely to suffer if their mother is employed. (Egal_1)	0	0	$\bigcirc$	$\bigcirc$	0	0
It is much better for everyone if the man earns the main living and the woman takes care of the home and family. (Egal_2)	0	0	$\bigcirc$	$\bigcirc$	0	0
If a husband and wife both work fulltime, they should share housework tasks equally. (Egal_3)	0	0	0	$\bigcirc$	0	0

A woman has to have children in order to be fulfilled. (Egal_4)	0	$\bigcirc$	$\bigcirc$	0	0	0
A working mother can establish as warm a relationship with her child as a woman who does not work. (Egal_5)	0	$\bigcirc$	$\bigcirc$	$\bigcirc$	0	0
A husband and wife should both contribute to the family income. (Egal_6)	0	$\bigcirc$	0	0	0	0
Having a challenging job or career is as important as being a wife or mother. (Egal_7)	0	$\bigcirc$	$\bigcirc$	$\bigcirc$	0	0

End of Block: Egalitarianism

Start of Block: Feminism



Feminism We would like to know a bit about *your attitudes* about gender relations.

To what extent do you agree or disagree with the following items?

	Strongl y disagre e (1)	Disagre e (2)	Somewha t disagree (3)	Neither agree nor disagre e (4)	Somewha t agree (5)	Agre e (6)	Strongl y agree (7)
It is insulting to the husband when his wife does not take his last name. (Feminism_1)	0	0	0	0	0	0	0
If the husband is the sole wage earner in the family, the financial decisions should be his. (Feminism_2)	0	0	$\bigcirc$	0	$\bigcirc$	0	0
When they go out, a man and a woman should share dating expenses if they both have the same income. (Feminism_3)	0	0	$\bigcirc$	0	$\bigcirc$	0	0
As head of the household, the father should have final authority over his children. (Feminism_4)	0	0	$\bigcirc$	0	$\bigcirc$	0	0

Both husband and wife should be equally responsible for the care of their children. (Feminism\_5) The first duty of a woman with young children is to home and family. (Feminism\_6) A man who has chosen to stay at home and be a househusband is not less masculine than a man who is employed full time. (Feminism\_7)

		$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$
	0						
I	0						
	0	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	0	$\bigcirc$

An employed woman can establish as warm and secure relationship with her children as a mother who is not employed. (Feminism\_8) A woman should not let bearing and rearing children stand in the way of a career if she wants it. (Feminism\_9) Women should be more concerned with clothing and appearance than men. (Feminism 10

)

0	0	0	0	0	0	$\bigcirc$
0	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$
0	0	$\bigcirc$	$\bigcirc$	$\bigcirc$	0	$\bigcirc$

58

Men and women should be able to freely make choices about their lives without  $\bigcirc$  $\bigcirc$  $\bigcirc$  $\bigcirc$  $\bigcirc$  $\bigcirc$  $\bigcirc$ being restricted by gender. (Feminism\_11 ) Abortion is an issue of women's  $\bigcirc$  $\bigcirc$ 0 0 0 rights.  $\bigcirc$  $\bigcirc$ (Feminism\_12 ) If men were the sex who got pregnant, more reliable and convenient  $\bigcirc$  $\bigcirc$  $\bigcirc$  $\bigcirc$  $\bigcirc$  $\bigcirc$  $\bigcirc$ birth control would be available. (Feminism 13 )





#### **Start of Block: Debriefing**

Debriefing You have come to the end of the survey! Thank you very much for participating in this study!

#### **Information about The Study**

This study was designed to examine evaluations of men who behave differently towards women (with the focus on (benevolent) sexism). If you have any questions about this research, feel free to contact the researchers of this study, Melina Kugelmann (m.n.kugelmann@student.utwente.nl), University of Twente.

**End of Block: Debriefing** 

## Appendix B – SPSS Syntax

# Prepare Dataset: Recode items

```
RECODE Provide_2 (1=7) (2=6) (3=5) (5=3) (6=2) (7=1)

/Protect_1 (1=7) (2=6) (3=5) (5=3) (6=2) (7=1)

/HS_6 (1=7) (2=6) (3=5) (5=3) (6=2) (7=1)

/Egal_1 (1=7) (2=6) (3=5) (5=3) (6=2) (7=1)

/Egal_2 (1=7) (2=6) (3=5) (5=3) (6=2) (7=1)

/Egal_4 (1=7) (2=6) (3=5) (5=3) (6=2) (7=1)

/Feminism_1 (1=7) (2=6) (3=5) (5=3) (6=2) (7=1)

/Feminism_2 (1=7) (2=6) (3=5) (5=3) (6=2) (7=1)

/Feminism_4 (1=7) (2=6) (3=5) (5=3) (6=2) (7=1)

/Feminism_6 (1=7) (2=6) (3=5) (5=3) (6=2) (7=1)

/Feminism_10 (1=7) (2=6) (3=5) (5=3) (6=2) (7=1)

/Feminism_15 (1=7) (2=6) (3=5) (5=3) (6=2) (7=1)

/Feminism_16 (1=7) (2=6) (3=5) (5=3) (6=2) (7=1)
```

# Prepare Dataset: compute single values for the dependent variables

COMPUTE Warmth = mean (Warmth\_1, Warmth\_2, Warmth\_3). EXECUTE.

COMPUTE Provide = mean (Provide\_1, Provide\_2, Provide\_3). EXECUTE.

COMPUTE Protect = mean (Protect\_2, Protect\_3). EXECUTE.

COMPUTE Commit = mean (Commit\_1, Commit\_2, Commit\_3). EXECUTE.

COMPUTE Attract = mean (Attract\_1, Attract\_2). EXECUTE.

COMPUTE Patron = mean (Patron\_1, Patron\_2, Patron\_3). EXECUTE.

COMPUTE Undermining = mean (Underm\_1, Underm\_2, Underm\_3). EXECUTE.

COMPUTE Interest = mean (Interest\_1, Interest\_2). EXECUTE.

COMPUTE Jealous = means (Jealous\_1, Jealous\_2, Jealous\_3, Jealous\_4, Jealous\_5, Jealous\_6, Jealous\_7). EXECUTE.

COMPUTE HostileSexism = means (HS\_1, HS\_2, HS\_3, HS\_4, HS\_5, HS\_6, HS\_7, HS\_8, HS\_9, HS\_10, HS\_11). EXECUTE.

COMPUTE Egalitarianism = means (Egal\_1, Egal\_2, Egal\_3, Egal\_4, Egal\_5, Egal\_6). EXECUTE.

COMPUTE Femin = means (Feminism\_1, Feminism\_2, Feminism\_3, Feminism\_4,

Feminism\_5, Feminism\_6, Feminism\_7, Feminism\_8, Feminism\_9, Feminism\_10,

Feminism\_11, Feminism\_12, Feminism\_13, Feminism\_14, Feminism\_15, Feminism\_16, Feminism\_17, Feminism\_18).

EXECUTE.

# descriptives age

#### DESCRIPTIVES VARIABLES=Age

/STATISTICS=MEAN STDDEV MIN MAX.

# frequencies sexuality and nationality education

FREQUENCIES VARIABLES=Sexuality Nationality Education BSAtti

/ORDER=ANALYSIS.

*# correlations between the dependent variables* 

#### CORRELATIONS

/VARIABLES=Warmth Interest Provide Protect Commit Attract Patron Undermining Jealous HostileSexism Egalitarianism Femin

/PRINT=TWOTAIL NOSIG /MISSING=PAIRWISE.

# Reliability tests for constructs (Cronbach's alpha)

#### RELIABILITY

/VARIABLES=Warmth\_1 Warmth\_2 Warmth\_3 /SCALE('ALL VARIABLES') ALL /MODEL=ALPHA.

#### RELIABILITY

/VARIABLES=Provide\_1 Provide\_2 Provide\_3 /SCALE('ALL VARIABLES') ALL /MODEL=ALPHA.

#### RELIABILITY

/VARIABLES=Protect\_1 Protect\_2 Protect\_3

/SCALE('ALL VARIABLES') ALL

/MODEL=ALPHA.

#### RELIABILITY

/VARIABLES=Commit\_1 Commit\_2 Commit\_3

/SCALE('ALL VARIABLES') ALL

/MODEL=ALPHA.

#### RELIABILITY

/VARIABLES=Patron\_1 Patron\_2 Patron\_3

/SCALE('ALL VARIABLES') ALL

/MODEL=ALPHA.

#### RELIABILITY

/VARIABLES=Underm\_1 Underm\_2 Underm\_3

/SCALE('ALL VARIABLES') ALL

/MODEL=ALPHA.

#### RELIABILITY

/VARIABLES=Jealous\_1 Jealous\_2 Jealous\_3 Jealous\_4 Jealous\_5 Jealous\_6 Jealous\_7 Jealous\_8 /SCALE('ALL VARIABLES') ALL /MODEL=ALPHA.

# RELIABILITY

/VARIABLES=HS\_1 HS\_2 HS\_3 HS\_4 HS\_5 HS\_6 HS\_7 HS\_8 HS\_9 HS\_10 HS\_11 /SCALE('ALL VARIABLES') ALL /MODEL=ALPHA.

# RELIABILITY

/VARIABLES=Egal\_1 Egal\_2 Egal\_3 Egal\_4 Egal\_5 Egal\_6 Egal\_7 /SCALE('ALL VARIABLES') ALL /MODEL=ALPHA.

## RELIABILITY

/VARIABLES=Feminism\_1 Feminism\_2 Feminism\_3 Feminism\_4 Feminism\_5

```
Feminism_6 Feminism_7 Feminism_8 Feminism_9 Feminism_10 Feminism_11
```

Feminism\_12 Feminism\_13 Feminism\_14 Feminism\_15 Feminism\_16 Feminism\_17

Feminism\_18

/SCALE('ALL VARIABLES') ALL

/MODEL=ALPHA.

# Reliability tests for constructs (spearman)

NONPAR CORR

/VARIABLES=Attract\_1 Attract\_2

/PRINT=SPEARMAN TWOTAIL NOSIG

/MISSING=PAIRWISE.

NONPAR CORR /VARIABLES=Interest\_1 Interest\_2 /PRINT=SPEARMAN TWOTAIL NOSIG /MISSING=PAIRWISE.

# descriptives (M and SD) separated by scenario

SORT CASES BY BSAtti. SPLIT FILE SEPARATE BSAtti.

DESCRIPTIVES VARIABLES= Warmth Provide Protect Commit Attract Patron

Undermining Interest Jealous HostileSexism Egalitarianism Femin

/STATISTICS=MEAN STDDEV MIN MAX.

SPLIT FILE Off.

# one-way ANOVA, and effect size (partial eta squared) for hypothesis 1

UNIANOVA Warmth BY BSAtti /METHOD=SSTYPE (3) /INTERCEPT=INCLUDE /PRINT=ETASQ PARAMETER /CRITERIA=ALPHA(.05) /DESIGN=BSAtti.

UNIANOVA Interest BY BSAtti /METHOD=SSTYPE (3) /INTERCEPT=INCLUDE /PRINT=ETASQ PARAMETER /CRITERIA=ALPHA(.05) /DESIGN=BSAtti.

UNIANOVA Provide BY BSAtti /METHOD=SSTYPE (3) /INTERCEPT=INCLUDE /PRINT=ETASQ PARAMETER /CRITERIA=ALPHA(.05) /DESIGN=BSAtti.

UNIANOVA Protect BY BSAtti /METHOD=SSTYPE (3) /INTERCEPT=INCLUDE /PRINT=ETASQ PARAMETER /CRITERIA=ALPHA(.05) /DESIGN=BSAtti.

UNIANOVA Commit BY BSAtti /METHOD=SSTYPE (3) /INTERCEPT=INCLUDE /PRINT=ETASQ PARAMETER /CRITERIA=ALPHA(.05) /DESIGN=BSAtti.

UNIANOVA Attract BY BSAtti

/METHOD=SSTYPE (3) /INTERCEPT=INCLUDE /PRINT=ETASQ PARAMETER /CRITERIA=ALPHA(.05) /DESIGN=BSAtti.

UNIANOVA Attract BY BSAtti WITH Warmth Interest

/METHOD=SSTYPE(3)

/INTERCEPT=INCLUDE

/EMMEANS=TABLES(BSAtti) WITH(Warmth=MEAN Interest=MEAN)

COMPARE ADJ(BONFERRONI)

/PRINT ETASQ DESCRIPTIVE

/CRITERIA=ALPHA(.05)

/DESIGN=Warmth Interest BSAtti.

UNIANOVA Patron BY BSAtti /METHOD=SSTYPE (3) /INTERCEPT=INCLUDE /PRINT=ETASQ PARAMETER /CRITERIA=ALPHA(.05) /DESIGN=BSAtti.

UNIANOVA Undermining BY BSAtti /METHOD=SSTYPE (3)

/INTERCEPT=INCLUDE /PRINT=ETASQ PARAMETER /CRITERIA=ALPHA(.05) /DESIGN=BSAtti.

# moderation analysis (PROCESS macro) to test hypothesis 2

Via the menu:

Analyse  $\rightarrow$  Regression  $\rightarrow$  PROCESS  $\rightarrow$ 

Independent variable (x): BS attitude

Dependent variable (y): attractiveness

Moderator variable (w): feminism

Significance level: 95%

10000 bootstrap samples

Model: 1 (because it's the model for moderation)

# one-way ANOVA, and effect size (partial eta squared) for hypothesis 3

UNIANOVA HostileSexism BY BSAtti /METHOD=SSTYPE (3) /INTERCEPT=INCLUDE /PRINT=ETASQ PARAMETER /CRITERIA=ALPHA(.05) /DESIGN=BSAtti.

# one-way ANOVA, and effect size (partial eta squared) for hypothesis 4

UNIANOVA Egalitarianism BY BSAtti /METHOD=SSTYPE (3) /INTERCEPT=INCLUDE /PRINT=ETASQ PARAMETER /CRITERIA=ALPHA(.05) /DESIGN=BSAtti.

# one-way ANOVA, and effect size (partial eta squared) for hypothesis 5

UNIANOVA Jealous BY BSAtti /METHOD=SSTYPE (3) /INTERCEPT=INCLUDE /PRINT=ETASQ PARAMETER /CRITERIA=ALPHA(.05) /DESIGN=BSAtti.