System Justification Moderates the Relation between Hostile (but not Benevolent) Sexism in the Workplace and State Anxiety: An Experimental Study

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(Article begins on next page)
System Justification Moderates the Relation between Hostile (but not Benevolent) Sexism in the Workplace and State Anxiety: An Experimental Study
Abstract

In an experimental vignette study performed with 92 Portuguese women, we analyzed the relations between exposure to hostile sexism (HS), benevolent sexism (BS) in a workplace context, system justification (SJ), and anxiety, measured after participants were exposed to a HS, a BS, or a neutral communication about the context of the industry they would have worked in, if selected. The results indicated that both HS and BS fostered participants’ anxiety and that SJ moderated the relation between HS and anxiety: Anxiety was highest among participants low in SJ. Main contributions of the study, limitations, and possible future research directions are discussed.

Keywords: Ambivalent sexism; System justification; Anxiety; Workplace
Despite numerous advances that have occurred in the last few decades, gender-based disparities are still widespread in economic participation and opportunity, in educational attainment, in health and survival, and in political empowerment (WEF, Global Gender Report, 2017). Beyond structural dimensions that obstacle equal opportunities among women and men, sexism is a crucial social psychological factor that sustains gender hierarchy in society. As concerns gender inequality in the workplace, that was our focus in this study, sexism not only impacts women’s career opportunities (Koch, D'Mello, & Sackett, 2015) and quality of work outcomes (Velez, Cox, Polihronakis, & Moradi, 2018) but also women’s psychological and physical health (Barreto & Ellemers, 2005a; Manuel, Howansky, Chaney, & Sanchez, 2017; Sojo, Wood, & Genat, 2015). Moreover, producing differentials of power, gender hierarchies have an advantage of legitimacy, since, once formed and consolidated, they tend to self-perpetuate through bottom-up ideological justifications, making the attempts to change the existing social order much more complex (Van der Toorn et al., 2015). The goal of the present paper was to examine whether and how system justification motivation interacts with exposure to workplace sexism in affecting women’s psychological adjustment.

Ambivalent Sexism and Women’s Psychological Adjustment

Although the lay conception of sexism sees it as a general hostile attitude toward women, research has shown that at present, as a consequence of the evolution of gender role norms in Western societies, ambivalence (i.e. the coexistence of positive and negative attitudes) better describes sexist attitudes towards women (Glick & Fiske, 2011).

According to the Ambivalent Sexism theory (Glick & Fiske, 1996, 2001), two main distinct and complementary ways of expressing sexism can be identified: hostile and benevolent sexism. Hostile sexism (HS) is an antagonistic and adversarial attitude towards women who do not conform to traditional gender roles, and is openly intended to justify and preserve male dominance. Benevolent sexism (BS) is a less confrontational but still
problematic attitude that regards seeing women who conform to traditional gender roles as wonderful and fragile creatures who need and deserve men’s protection and adoration (Glick & Fiske, 1996).

The negative consequences of HS for women’s psychological adjustment are well documented. Schneider, Tomaka, and Palacios (2001) compared the effects of exposure to HS (vs. egalitarian vs. female-dominant) interactions with a male confederate; they found that women exposed to a HS interaction cognitively appraised the situation as more demanding and experienced a more strongly negative emotional reaction. Becker and Wright (2011) reported that exposure to hostile vs. gender-neutral views increased women’s negative affect, while Lemonaki, Manstead, and Maio (2015) found that exposure to hostile rather than benevolent or neutral beliefs led to increased anger and frustration and decreased security among female participants. Finally, Salomon, Burgess, and Bosson (2015) found that exposure to a HS (vs. BS vs. non-sexist) comment made by a male researcher heightened women’s stress, measured by physiological responses (i.e., cardiovascular activity) to that situation.

Whereas the male-dominant ideology of HS is easily recognizable in its openly denigrating view, women often perceive BS as a flattering attitude. This fact may partially explain why studies of the effects of BS on women’s psychological adjustment have yielded inconsistent results. Dardenne and colleagues (2007, 2013) found that being the target of BS impairs women’s cognitive performance and induces changes in brain activity associated with a working memory task; Barreto and Ellemers (2005b) showed that expressions of BS (vs. HS) elicited a less negative reaction (measured as feelings of anger, disappointment, and indignation). Becker and Wright (2011) found that exposure to BS (vs. gender neutral) views increased women’s positive affect. Similarly, Napier, Thorisdottir, and Jost (2010) even
showed that in relatively egalitarian nations, both men and women who endorsed BS (vs. HS) scored higher in life satisfaction.

**System Justification Motive**

The System Justification (SJ) theory explains why and how unequal social systems can be maintained and perpetuated. Indeed, it states that individuals hold at different degrees a motivation to justify and rationalize the way things happen in their lives by virtue of which they come to perceive the current social, economic, and political arrangement ‘as good, fair, natural, desirable and inevitable’ (Jost, Banaji, & Nosek, 2004, p. 887). This motivation pushes to not challenge the societal *status quo* even at the expense of one’s own interest or that of their group (Jost et al., 2004). In the general motivation to justify the existing social order, three class of motivation can be distinguished: (a) epistemic (connected with the human need for certainty, coherence, and control of the surrounding reality), (b) existential (defending the *status quo* helps satisfy the existential need for security), and (c) relational (connected with the desire to affiliate with people similar to us and sharing a similar vision of reality).

As Jost and Hunyaday (2002) argued, even though this may seem paradoxical, SJ motivations can serve as both a coping resource and a stressor. By allowing individuals to perceive their social context as stable and predictable, SJ beliefs, when confirmed, can effectively prevent stress. However, when challenged, they can become dangerous stressors (Wakslak, Jost, Tyler, & Chen, 2007).

Consistent with this, research on the moderating impact of SJ motives (and of related constructs) on the relationship between exposure to unfair events and well-being has provided inconsistent results. Levine, Basu, and Chen (2017) measured male and female participants’ just world beliefs and interviewed them about negative life events recently experienced. They found that people with stronger just world beliefs exhibited better physiological outcomes,
such as lower metabolic risk, lower inflammation, and better sleep, after having reported to experience unfair (vs. other negative life) events. However, a study conducted on a female sample and focusing not on a general evaluation of unfairness but specifically on discrimination based on gender by Eliezer, Townsende, Sawyer, Major, and Mendes (2011) identified a positive relationship between perceived gender discrimination and heightened blood pressure (a measure of chronic stress) only among women who endorsed SJ beliefs.

The Present Study

The present study is one of the first known studies to examine experimentally whether exposure to gender discrimination in the workplace (i.e., hostile and benevolent expressions) would affect female participants’ anxiety according to participants’ system justifications beliefs. In line with previous research (Becker & Wright, 2011; Lemonaki et al., 2015; Salomon et al., 2015; Schneider et al., 2011), we expected that exposure to HS would increase anxiety (H1). With regard to BS, given the inconsistencies present in prior literature, we tested two competing hypotheses. On one hand, we considered that exposure to BS in the workplace may activate a perception of women as incompetent and dependent on men’s help (Ramos et al., 2016), thus generating anxiety (H2a). On the other hand, given the flattering nature of BS, it may be perceived as consolatory and reassuring, thus facilitating a reduction in anxiety (H2b).

As for the moderating role of SJ, two competing hypotheses were again advanced. Previous research has shown that when experiencing unfair events, stronger endorsement of system justifying beliefs emerged as a protective factor and led to better health parameters (Levine et al., 2017). In this vein, women with a higher need to justify the system could perceive as less stressful a situation in which the discrimination is blatantly hostile, since they are ideologically equipped to cope with this unjust scenario. Thus, we could hypothesize in line with the palliative function of system justifying ideology (Jost & Hunyady, 2002; Napier
& Jost, 2008) that exposure to HS would generate lower levels of anxiety among high (vs. low) system-justifying women (H3a). On the other hand, research has shown also that when women with stronger system justifying beliefs face an unequivocally blatant and unfair event they perceive the situation as particularly stressful because it threatens their beliefs of the system as fair (Elizier et al., 2011). Thus, we could alternatively hypothesize that exposure to HS could magnify anxiety among high (vs. low) system-justifying individuals (H3b).

**Method**

**Participants**

Ninety-two Portuguese women ($M_{age} = 25.34, SD = 8.29$) participated voluntarily and anonymously in an online experiment, constructed with a between-participants design. An a priori power analysis estimated that a sample size of at least 68 participants was required to observe a medium effect size ($f^2 = 0.15$, $\alpha = 0.05$, and power = .80).

**Procedure**

As Dardenne et al. (2007), we performed a paper-and-pencil vignette experiment, presented as a simulation of a job interview at a chemical factory currently employing only men. In the pre-experimental stage, we measured SJ, i.e., the variable we predicted to moderate the relation between exposure to sexist messages and the dependent variable. The experimental manipulation followed. We randomly assigned participants to one of three experimental conditions (HS: $n = 30$; BS: $n = 31$; control condition: $n = 31$), depending on the content of the instructions given by the recruiter, which again followed Dardenne and colleagues (2007).

Specifically, participants exposed to a sexist condition were explained that a new law on gender quotas obliged industries to follow specific employment rules. In the HS condition, participants read, ‘Industry is now restricted to employ a given percentage of people of the weaker sex. I hope women here won’t be offended, they sometimes get so easily upset! If
hired, you’ll work with men only, but don’t believe what those feminists are saying on TV, they probably exaggerate women’s situation in industry simply to get more favors!’

Participants exposed to the BS condition read, ‘Industry is now restricted to choose women instead of men in case of equal performance. You’ll work with men only, but don’t worry, they will cooperate and help you to get used to the job. They know that the new employee could be a woman, and they agreed to give you time and help’. Finally, participants in the control condition just read the description of the job they would have done if hired.

After the experimental manipulation, we administered a question to be used to perform the manipulation check and measured participants’ state anxiety. A standard socio-demographic form followed. After they completed the experiment, the participants were fully debriefed and thanked.

The present research was conducted in accordance with the ethical standards established in the 2013 Declaration of Helsinki, as well as with the recommended Ethical Principles of Psychologists and the Code of Conduct published by the American Psychological Association (APA).

**Measures**

We measured SJ using a 6-item, 7-category (from 1 = *I fully disagree* to 7 = *I fully agree*) Portuguese translation of Jost and Thompson’s (2000) SJ Scale (α = .62). Cronbach’s alpha for the battery was under the conventional .70 threshold. However, their mean correlation was a decent $r = .22$, and a confirmatory factor analysis showed that the scale was unidimensional, $\chi^2(9) = 6.43$, $p = .70$, $TLI = 1.00$, $CFI = 1.00$, $RMSEA = .00$ (90% CI = .00, .09), all standardized factor loading significant with $p < .05$, and ranging from .26 to .78.

We measured the effectiveness of the manipulation asking participants to rate the extent to which they perceived the introductory test as sexist by the following 5-category (from 1 = *definitely not* to, 5 = *definitely yes*) item: ‘Do you think there is a prejudice against women in
this company?’. As previously done by Roccato and Russo (2017, Study 2), we measured participants’ state anxiety using a translation of five items from Spielberger and colleagues’ (1983) State Anxiety Inventory, Form Y. Participants were asked to report, on a scale from 1 (not at all) to 4 (very much), the degree to which they would feel each emotion after the selection interview (e.g. secure, tense; α = .84). A confirmatory factor analysis confirmed the unidimensionality of the battery, $\chi^2(5) = 9.28, p = .10, TLI = .97, CFI = .98, RMSEA = .10 (90\% CI = .00, .19), all standardized factor loading significant with $p < .05$, and ranging from .46 to .98.

We computed the variables as mean scores.

**Results**

Table 1 displays the descriptive statistics for the variables we measured and the correlations among them.

A preliminary analysis showed that our experimental manipulation was successful. Participants exposed to the HS condition ($M = 3.53, SD = .57$) perceived a higher sexism in the recruiter’s introduction than those in the BS condition ($M = 1.90, SD = 1.14$), and they in turn had a higher perception of sexism than those in the control condition ($M = .36, SD = .95$), $F(2,89) = 99.06, p < .001, \eta^2 = .50$. Bonferroni post hoc tests showed that all three means differed from each other at the $p < .001$ level.

We tested our hypotheses via a moderated regression, aimed at predicting participants’ anxiety as a function of exposure to either HS or BS, of SJ, and of the interactions between the two forms of sexism and SJ. The macro process for multicategorical independent variable was adopted (Hayes & Montoya, 2017). Before entering them in the regression, we have centered SJ and recoded the experimental conditions adopting dummy coding (see Figure 1).

Table 2 displays the results of the regression.
Consistent with H1 and H2a, exposure to HS as well as to BS fostered participants’ anxiety. SJ show a significant association with the dependent variable as well. Consistent with H3a, the interaction between exposure to the HS condition and SJ showed a significant association with anxiety, whereas the BS–SJ interaction did not show an association with the dependent variable. A simple slope analysis showed that exposure to hostile sexism fostered anxiety among both participants high in SJ (+1 SD; simple slope = .85, SE = .19, p < .001, LLCI ULCI: .4791, 1.2218), and those low in SJ (−1 SD; simple slope = 1.51, SE = .20, p < .001, LLCI ULCI: 1.107, 1.8978). However, the second path was stronger than the first, t(180) = 2.38, p = .02. Figure 1 shows the moderating effect graphically.

Discussion

A large body of research investigated gender-based discrimination in workplace as a relevant social issue. However, the combined effect of exposure to workplace sexism and personal ideological tendencies has been rarely investigated. On the one hand, sexist attitudes and behaviors not only undermine women’s occupational opportunities and careers (Barreto & Ellemers, 2005a; Dardenne et al., 2007) but also can have strong negative impact on their psychological adjustment (Manuel et al., 2017). On the other hand, research has shown that individuals’ ideologies can affect the relationship between exposure to discrimination and well-being (Levine et al., 2017; Major, O’Brien, & McCoy, 2007). Linking these two lines of research, we aimed to examine experimentally the moderating impact of SJ motivations on the relationship between exposure to workplace sexism and anxiety.

In line with prior literature (Becker & Wright, 2011; Lemonaki et al., 2015; Salomon et al., 2015; Schneider et al., 2011), our study showed that exposure to HS fostered a negative emotional reaction, such as anxiety, confirming that a blatant and denigrating sexist environment has a detrimental impact on women’s well-being. In addition, results indicated that the exposure to BS has a similar detrimental effect. This finding is plausible, because
exposure to a noticeably condescending and paternalistic workplace implies a conception of women as incompetent and dependent on men’s help, thereby generating unpleasant feelings in women (Ramos et al., 2016).

Regarding to the moderating role of system justification, exposure to HS increased anxiety among women endorsing low (vs. high) system-justifying beliefs. Thus, individuals with a lower need to justify the system perceived as particularly stressful a situation in which the discrimination was blatantly hostile being not ideologically equipped to justify the unfair situation. Indeed, women who do not endorse system justifying beliefs recognize gender discrimination as a structural aspect of workplace. In doing so, they may perceive the situation as stressful since their personal efforts could not suffice to improve their professional position and work life. Therefore, as previous research has shown (Napier & Jost, 2008), inequality is more troublesome for individuals who poorly (vs. highly) justify the social system, because the former lack ideological rationalizations that would help to cope with it and reframe its negative consequences. On the other hand, our results confirmed, the buffering effect of system justification motive against the negative effects of blatant inequality on women’s psychological health in the workplace environment.

As for those exposed to BS in the workplace, holding system-justifying beliefs did not affect the degree of generated anxiety.

**Limitations and Future Directions**

Although it extended the knowledge on the impact of personal ideological standpoints on the relationship between exposure to workplace sexism and women’s psychological well-being, this study had some limitations.

Even thought our research prompted participants to focus on real simulation of a job interview, the study did not involve participants to ongoing events. Thus, future studies might complement this research by directly exposing participants to hostile (vs. benevolent)
episodes of sexism. Moreover, our crucial measure of SJ presented a reliability value that was
not fully satisfactory, even if a confirmatory factor analysis showed that it was
unidimensional and the scale’s items showed a decent mean correlation among them.
Interestingly, the magnitude of the alpha of the scale was analogous to that stemming from its
Italian validation (Roccato, Rosato, Mosso, & Russo, 2014), and lower to that stemming from
research performed in Anglo-Saxon contexts (e.g., Jost, Kivetz, Rubini, Guermandi, &
Mosso, 2005; Laurin, Shepherd, & Kay, 2010). Future studies could compare systematically
the reliability of the SJ scale across different cultural contexts, and, if needed, could develop
new SJ items more fitting with not-Anglo-Saxon contexts.

Experiences of workplace discrimination frequently present threats to individuals’ well-
being by causing unhealthy behaviors and generating deficits in work productivity (Combs &
Milosevic, 2016). However, our research did not investigate the possible consequences of
state anxiety fostered by exposure to sexist workplace. To fill this gap, future research could
seek to broaden our knowledge by investigating the consequences of the increased level of
state anxiety that arises because of exposure to HS, considering individuals’ ideological
tendencies. Women could more likely engage in unhealthy behaviors (such as smoking or
alcohol consumption) as a coping strategy to deal with perceived stress and anxiety. These
consequences could affect commitment to overall organizational climate, and productivity.
Based on previous findings from Velez et al. (2018), future research could also consider
whether, beyond SJ motives, holding feminist attitudes can be a protective factor against
experience of workplace sexism.

**Practical Implications**

Beyond their academic relevance, our results can provide useful insight for
organizational programs aimed at fighting workplace sexism and preventing its negative
consequences. Sexism in workplace is a crucial social psychological factor in sustaining
inequalities and in jeopardizing women’s psychological wellbeing and work performance (Manuel et al., 2017). Consistent with this, raising awareness about all forms of sexism in the workplace is a crucial aspects in gender balance interventions (Sojo et al., 2016).

However, despite this strategy is fundamental to recognize and fight sexism, our results indicated that is not only sexism itself that impairs women’s well-being, but also their ideological standpoints contribute in shaping these negative consequences. Thus, our results suggest that organizations should realize multifaceted programs that, alongside with raising awareness-strategies, should offer appropriate and flexible supportive strategies to women who—directly or indirectly—face sexism in the workplace. Taking into account the fact that the consequences of exposure to sexism for women vary according to both different forms of sexist events and women’s ideological standpoints, supportive strategies should provide them personalized guidance and approach to cope with discriminatory events and to avoid negative outcomes.

**Conclusion**

Gender-based discrimination in the workplace is a heavily investigated social problem, but the effects of personal ideological tendencies in moderating the effects of exposure to workplace sexism have been largely overlooked. Our results indicate that hostile work environments and low-SJ tendencies work together to create a stressful environment for women.

**References**


Jost, J. T., & Thompson, E. P (2000). Group-based dominance and opposition to equality as


Table 1. 

Descriptive Statistics for the Variables We Used and Correlations among Them.

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*Note.*

***p < .001. *p < .05.

D1 = D2=
Figure caption.

*Figure 1.* Moderating Effect of System Justification on the Relation between Exposure to Hostile Sexism and Anxiety.
Figure 1.