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Health Costs to Experiencing, and Psychological Barriers to Confronting, Gender Discrimination Across the Lifespan

A dissertation submitted in partial satisfaction of the requirements for the degree of Doctor of Philosophy in Psychology

by

Ariana Naomi Bell

2019

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ABSTRACT OF THE DISSERTATION

Health Costs to Experiencing, and Psychological Barriers to Confronting, Gender Discrimination Across the Lifespan

by

Ariana Naomi Bell

Doctor of Philosophy in Psychology

University of California, Los Angeles, 2019

Professor Jaana Juvonen, Co-Chair

Professor Margaret Shih, Co-Chair

While there has been considerable progress in reducing social inequalities between men and women, sexism and gender discrimination continue to plague society and cause considerable harm. Given its prevalence, some may even argue that being subjected to gender-based mistreatment is a normative experience for women. While the harms of gender discrimination have been well-documented in adult populations, less is known about how gender discrimination may affect the development of adolescent girls. In this dissertation, I pursue two inter-related lines of research: one among adults in the context of the workplace, and one among adolescents in school contexts—domains in which gender discrimination may be especially likely to occur. Paper 1 seeks to help explain why women targets of gender discrimination so seldom choose to

confront their perpetrators in the workplace, by proposing a novel psychological mechanism that may inhibit confronting behavior: *complainer confirmation anxiety*. Paper 2 explores adults' motivated perceptions (via social dominance orientation) of stereotyping women who claim gender discrimination in the workplace as complainers. Paper 3 examines how gender discrimination by adults in school is linked with depression and sleep duration as indicators of adjustment over time in middle school, as well as how perceptions of school unfairness help to explain the relations between discrimination and adjustment. Implications for addressing gender discrimination in school and work settings are discussed.

The dissertation of Ariana Naomi Bell is approved.

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University of California, Los Angeles

2019

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Overview

While there has been considerable progress in reducing social inequalities between men and women, sexism and gender discrimination continue to persist in society and cause considerable harm. Broadly defined, gender discrimination consists of being treated unfairly by others on the basis of one's gender. Given its prevalence, some have suggested that being subjected to gender-based mistreatment is a normative experience for women. One study found that 99% of women report having experienced a sexist event at some point in their lifetime, with 97% having reported experiencing something sexist happening to them within the past year (Klonoff & Landrine, 1995). There is strong empirical evidence using both correlational and experimental designs that experiencing discrimination is associated with a host of negative consequences for targets (e.g., Schmitt, Branscombe, Postmes, & Garcia, 2014). In fact, women who are exposed to gender discrimination show worse mental and physical health over time (e.g., Krieger, 1990; Schmitt, Branscombe, & Postmes, 2003), and they suffer economically, as well. Wage discrimination, as well as gender bias in hiring and promotion opportunities, systematically disadvantage women financially (e.g., Pew Research Center, 2013; Sturm, 2001), such that being paid less early on in one's career only compounds as time passes, resulting in significant lifetime economic harm.

Among adult women, research has demonstrated that not only is gender discrimination in of itself harmful; women who seek to rectify or address unfair treatment due to their gender often incur additional interpersonal and professional costs, such as social rejection and retaliation (Bergman, Langhout, Palmieri, Cortina, & Fitzgerald, 2002; Kaiser & Miller, 2001; Shelton & Stewart, 2004; Shih, Young, & Bucher, 2013). While most women anticipate that in the face of sexism or gender discrimination they would choose to challenge or confront the source of the

discrimination, in reality women engage in such confronting behaviors exceedingly rarely (Swim & Hyers, 1999; Woodzicka & LaFrance, 2001). Most research has attributed this discrepancy between forecasted and observed behavior to factors such as anticipated interpersonal and professional costs (e.g., Shelton & Stewart, 2004), or a misidentification of the emotional state one experiences during discrimination (i.e., anticipating anger, which is a motivating emotion, and instead experiencing anxiety, which is a demotivating emotion) (e.g., Trawalter, Richeson, & Shelton, 2009; Woodzicka & LaFrance, 2001).

The present research (Paper 1) introduces an underlying psychological mechanism to help explain why women may refrain from confronting those who discriminate against them based on their gender: *complainer confirmation anxiety*. One particularly pernicious stereotype about people who choose to confront discrimination is that they are simply complainers (Kaiser & Miller, 2003; Kowalski, 1996; Swim, Cohen, & Hyers, 1998). People from these historically marginalized groups are also motivated to avoid confirming negative stereotypes about their groups (e.g., Crocker, Major, & Steele, 1998; Steele, 1997; Steele, Spencer, & Aronson, 2002), and will go to great lengths to do so. Women, in particular, are already negatively stereotyped as overly emotional, whiny, and hypersensitive (Devine, 1989; LaFrance & Banaji, 1992; Plant, Hyde, Keltner, & Devine, 2000). People who confront discrimination are perceived by others as complainers, and this stereotype may be especially relevant to women as a social group. I, therefore, expect that in the face of gender discrimination women who are especially anxious about not confirming the stereotype that women are complainers will be significantly less likely to choose to confront or "speak up" about experiences of gender discrimination in the workplace. The pilot study and Study 1 are dedicated to the development of the complainer confirmation anxiety scale, as well as demonstrating an association between women's levels of complainer

confirmation anxiety and their behavioral intentions to confront gender discrimination. Study 2 seeks to identify organizational cultures that may diminish or accentuate women's subjective experiences of complainer confirmation anxiety and, in turn, their behavioral intentions to confront gender discrimination.

While Paper 1 focuses on women's *experiences* of gender discrimination and associated concerns about confirming the complainer stereotype about women, Paper 2 provides a psychological explanation for why people *perceive* women who confront gender discrimination to be complainers. Specifically, I test the hypothesis that some people are psychologically motivated to stereotype women who claim discrimination to be complainers as a way to discredit them, striving to maintain an unequal gender hierarchy with men at the top and women at the bottom. Specifically, I examine the role of social dominance orientation (SDO; Pratto, Sidanius, Stallworth, & Malle, 1994), an ideological belief in which people demonstrate a preference for hierarchy (over equality) between social groups, as a psychological predictor of people's endorsement of the complainer stereotype about women who claim gender discrimination in the workplace.

People who show relatively higher levels of SDO (i.e., a preference for social hierarchy) have been found to engage in hierarchy-enhancing strategies, seeking to improve the status of their ingroup by denigrating the status of subordinate outgroup members (e.g., Levin & Sidanius, 1999). When women claim to have experienced gender discrimination, they are inherently challenging the existing social hierarchy between men and women by calling attention to unfair treatment on the based on their gender. As such, I propose that people higher in SDO may derogate women who claim discrimination as simply "complainers" in an effort to maintain the unequal status between gender groups. Using a correlational design, Study 1 tests the hypothesis

that people higher in SDO (compared to those lower in SDO) will show greater endorsement of the complainer stereotype about women who claim to have experienced gender discrimination in the workplace, over and above the effects of study control variables (i.e., participant gender, age, and political conservatism). Using an experimental design in Study 2, I then test the hypothesis that the association between higher SDO and greater endorsement of the complainer stereotype about women who claim gender discrimination will be accentuated when a woman chooses to confront the perpetrator (compared to not confront the perpetrator) of gender discrimination in the workplace. This is because confronting discrimination challenges the social hierarchy, and therefore should be experienced as particularly psychologically threatening for people higher in SDO.

In Study 3, I test experimentally the effects of a woman confronting gender discrimination on behalf of other women as a social group (compared to on behalf of her own self-interests) on people's evaluations of her as a complainer. I found that if a woman explicitly stated that she was speaking up about gender discrimination on behalf of all the women at her organization including herself, rather than for her own self-interests, people were significantly more likely to both view her as having altruistic motivations (consistent with gender stereotypes about women; Eagly & Steffen, 1984) and more likely to construe the incident itself as gender discrimination, which, in turn, was associated with less endorsement of the complainer stereotype about the target. Importantly, SDO did not moderate these effects, such that confronting on behalf of women as a group elicited more favorable evaluations by both people relatively lower and higher in SDO.

While Papers 1 and 2 examine gender discrimination in the context of interactions between adults in the workplace, we know that gender discrimination does not begin during

adulthood; indeed, youth develop awareness of gender-based mistreatment during late childhood and early adolescence (e.g., Brown, Alabi, Huynh, & Masten, 2011). For example, adolescent girls report being discouraged from both academics (e.g., science) and athletics—domains in which boys and men have historically been over-represented—by adults in school, such as their teachers and coaches (Leaper & Brown, 2008). In academic contexts, discrimination is a pronounced contributor to educational disparities between men and women in science, technology, engineering and mathematics (STEM) fields. In fact, adolescent girls who are exposed to sexist comments about girls' abilities in math and science (i.e., academic sexism) report valuing math and science less and feeling less competent in those domains, controlling for math and science grades (Brown & Leaper, 2010). Adolescence itself is a developmental stage marked with a variety of important milestones, such as the shift in attention from parents and home life to peers and school life. Given that early adolescence is a critical phase in social development, with tremendous power to shape inter-gender relations (Tenenbaum & Leaper, 2002), identity development processes (Meeus, Iedema, Helsen, & Vollebergh, 1999), and academic interest in STEM fields (Leaper, Farkas, & Brown, 2012), it is of great importance that any negative outcomes associated with experiencing gender discrimination in early adolescence are identified and studied.

While well-researched among adult women, little work has empirically examined gender discrimination among adolescent girls and its possible negative consequences (for exceptions, see: Brown & Bigler, 2004; Cogburn, Chavous, & Griffin, 2011; Leaper & Brown, 2008; Majeno, Tsai, Huynh, McCreath, & Fuligni, 2018). As such, the area has remained relatively under-researched. Given that adolescence is a developmental phase in which gender as a social identity becomes increasingly salient (e.g., Connolly, Craig, Goldberg, & Pepler, 2004; Hill &

Lynch, 1983; Maccoby & Jacklin, 1987), and adolescent girls are less prepared than at any other point in the lifespan to cope with and respond to discrimination, it is especially critical that the potential costs of experiencing gender discrimination during adolescence are identified. Specifically, the present work focuses on the potential health consequences of experiencing gender discrimination from teachers over time across the course of middle school. This is of particular importance because there is evidence that the links between experiencing discrimination and poorer health outcomes are even more robust among adolescent compared to adult populations (Schmitt, et al., 2014). Perhaps not coincidentally, adolescence is also when gender differences in important indicators of mental and physical health such as depression and sleep begin to emerge (Lee, McEnany, & Weeks, 1999; Nolen-Hoeksema & Girgus, 1994; Nolen-Hoeksema, 2001).

Guided by research on the health effects of experiencing racial discrimination during adolescence (Dunbar, Mirpuri, & Yip, 2017; Majeno et al., 2018; Umaña-Taylor & Updegraff, 2007), I document in Paper 3 how gender discrimination in seventh grade is associated with higher levels of depression and shorter sleep durations in eighth grade. These analyses are based on a large, ethnically diverse sample of middle school girls. In these multi-level analyses, I control for sixth grade baseline levels of depression and sleep to be able to model change in depression and sleep duration over time. Lastly, I find support for our hypothesis that girls who report experiencing gender discrimination during middle school come to view their schools as unfair institutions, which, in turn, is associated with higher levels of depression and shorter sleep durations. Results suggest that perceptions of school as unfair help to explain the associations between gender discrimination, depression, and sleep duration among adolescent girls. Given that adequate sleep is imperative for healthy adolescent development and academic performance

(Dahl & Lewin, 2002; Curcio, Ferrara, & Gennaro, 2006), these findings highlight the importance for schools to systematically address gender bias and sexism in their educational staff and teachers.

Together, the three papers seek to document the impact of gender discrimination across the lifespan for girls and women, from schools to workplaces, as well as identify strategies to ameliorate the costs associated with experiencing gender discrimination. Overall, this work highlights opportunities for organizations to create climates in which women feel comfortable confronting the perpetrators of gender discrimination in the workplace (Paper 1), identified social dominance orientation as an underlying motivation for stereotyping women who claim gender discrimination as complainers (Paper 2), and documents the health costs to experiencing gender discrimination during adolescence in a large and ethnically diverse sample of girls (Paper 3).

Paper 1

Complainer Confirmation Anxiety as a Psychological Barrier to Confronting Gender Discrimination among Women[1]

[1] Bell, A. N., Does, S., & Shih, M. (in prep)

Abstract

Women are routinely exposed to gender discrimination in the workplace. Even though women express that they would like to, ample research demonstrates that women rarely choose to confront—i.e., make their discontent known to—perpetrators of gender discrimination. While existing work has focused on potential costs to confronting (e.g., retaliation, isolation) as deterrents, the present work explores a novel psychological barrier to confronting gender discrimination: *complainer confirmation anxiety*. A pilot study and Study 1 (correlational) seek to develop and establish the validity and reliability of the complainer confirmation anxiety scale, as well as demonstrate an association between higher levels of complainer confirmation anxiety and lower levels of behavioral intentions to confront a discriminatory supervisor in the workplace. Study 2 (experimental) finds that when an organization's culture is high in "discussability" and self-reflection (i.e., an open-door culture), this reduces the extent to which women report experiencing complainer confirmation anxiety, which in turn, is associated with greater behavioral intentions to confront, and lower behavioral intentions to avoid, their discriminatory supervisor. Implications for facilitating confronting behavior among women subjected to gender discrimination in workplace settings are discussed.

Complainer Confirmation Anxiety as a Psychological Barrier to Confronting Gender Discrimination among Women

Gender inequality continues to be a pervasive social issue in the modern workplace (Pew Research Center, 2013; 2015). One of the ways in which gender inequality is created and perpetuated is through systemic gender discrimination, in which an individual may be treated unfairly by a co-worker or supervisor because of their gender (e.g., receiving lower compensation for similar work). In response to experiences of gender discrimination in the workplace, one of the most effective interpersonal strategies that women can employ is confrontation (i.e., challenging the discriminatory colleague). This is because confrontation provides the opportunity for the discriminatory act to be rectified and allows for women to express their discontent with being mistreated (e.g., Chaney, Young, & Sanchez, 2015; Czopp, Monteith, & Mark, 2006).

While there are many possible benefits to confronting, there are also substantial barriers for women with regards to confronting gender discrimination in the workplace (for a review, see: Shih, Young, & Bucher, 2013). The rates at which women choose to confront perpetrators of gender discrimination are exceedingly low (Woodzicka & LaFrance, 2001; Swim & Hyers, 1999). In addition to professional costs like retaliation or social isolation, prior work has shown that people who choose to "speak up" about group-based discrimination are generally disliked by others and labelled as whiny complainers (Kaiser & Miller, 2003; Kowalski, 1996). The present work explores the possibility that women may refrain from confronting gender discrimination due to concerns that confronting would inadvertently confirm the negative stereotype that women are complainers. Specifically, I propose that a state of *complainer confirmation anxiety* is an underexplored social psychological barrier to confronting that women who are exposed to

gender discrimination in the workplace may encounter. If women are motivated to avoid confirming the stereotype that women are complainers, they therefore may be less inclined to confront gender discrimination, as confronting is a form of dissent. This paper seeks to develop a measure to assess women's subjective experiences of complainer confirmation anxiety, examine the extent to which complainer confirmation anxiety is related to behavioral intentions to confront gender discrimination in the workplace, and explore ways in which organizations may be able to reduce women's experiences of complainer confirmation anxiety and increase their confronting behavioral intentions by creating organizational cultures that are conducive to confronting.

Prevalence and Consequences of Gender Discrimination in the Workplace

In spite of the legal protections in place that should deter gender discrimination from occurring, gender discrimination is far from a relic of the past. Discrimination on the basis of gender is illegal in the United States, and yet it continues to be pervasive (e.g., Pew Research Center, 2013; 2015). While there have been tremendous strides in the last several decades towards a reduction of gender-based inequalities in the U.S., including an increase in educational and professional opportunities for girls and women, gender discrimination remains an important social issue. In the context of the workplace, the U.S. Equal Employment Opportunity Commission (EEOC; 2017) defines gender discrimination as "treating someone (an applicant or employee) unfavorably because of that person's sex." Most frequently, gender discrimination situations are ones in which a man is treating a woman unfairly because of her gender (Pew Research Center, 2013; 2015), although it is possible that gender discrimination can be perpetrated by (or experienced by) anyone of any gender. However, given that men are a societally advantaged group, and women a historically disadvantaged group, the effects of being

subjected to discrimination are especially harmful to women (Schmitt, Branscombe, Kobrynowicz, & Owen, 2002). Importantly, gender discrimination may be especially pernicious for women of color, who report even higher rates of sexism in their daily lives compared to White women (e.g., Klonoff & Landrine, 1995) and are subjected to discrimination intersectionally in terms of their race/ethnicity and gender (e.g., Acker, 2006).

Although the gender wage gap may be narrowing (for some racial and ethnic groups) (Pew Research Center, 2013; 2016), in about two-thirds of married or cohabitating heterosexual couples, men earn significantly more than women on average. This difference is not simply driven by women choosing lower-paying careers or electing to work fewer hours for childcare purposes; women are often paid a proportion of what men are paid for the same position with comparable work hours and responsibilities. Women are subjected to gender discrimination in terms of hiring and promotion decisions (Sturm, 2001), exclusion from leadership roles and relegation to lower-status roles (Sanchez-Hucles & Davis, 2010), deterrence from pursuing careers in fields traditionally dominated by men (Steele, James, & Barnett, 2002), and sexual harassment (for a review, see: Willness, Steel, & Lee, 2007).

Gender discrimination can have a profound impact on women's careers. For example, one study found that women lawyers with more masculine-sounding names (i.e., perhaps mistaken as men) were more likely to be appointed as judges (Coffey & McLaughlin, 2009). In science, technology, engineering, and math (STEM) fields, gender disparities are especially well-documented (e.g., Handelsman, et al., 2005), and recent experimental studies have shown that lab manager applicants to university research positions were rated as significantly more competent and likely to be hired when given a traditional man's name compared to when given a traditional woman's name, in spite of identical qualifications (Moss-Rascusin, Dovidio, Brescoll,

Graham, & Handelsman, 2012). In another similar study, economists who analyzed musical auditions for orchestras found that changing auditions to "blind" ones in which the applicants were not seen (and their perceived gender thus concealed) resulted in a one-third increase in women being hired for those positions in orchestras (Goldin & Rouse, 2000). Together, this research across a variety of professional domains highlights the pervasiveness of gender discrimination and the potential consequences for women's careers.

When exposed to sexism or gender discrimination in the workplace, women typically face an important dilemma: "Should I say something about what just happened (i.e., 'confront'), or should I keep this experience to myself?". The answer to this question may appear simple at first glance, but the underlying decision-making process that accompanies such a choice is actually rather complex. For example, while the majority of women report forecasting that they would choose to confront the perpetrator of hypothetical gender discrimination, extensive research has documented that in reality most women choose to stay silent (for a review, see: Becker, Zawadzki, & Shields, 2014). This body of work indicates that there is indeed a mismatch between women's expectations for their own behavior during discrimination and how they actually choose to behave during such situations in the real world.

Previous work has focused on anticipated professional and interpersonal costs (Bergman, Langhout, Palmieri, Cortina, & Fitzgerald, 2002; Kaiser & Miller, 2001; 2003; Shelton & Stewart, 2004), such as retaliation (e.g., being fired) and social isolation, as strong deterrents to confronting discrimination in the workplace. Women frequently underestimate the extent to which these factors will shape their decisions on whether or not to confront. Relatedly, research examining people's lay perceptions of women who choose to confront gender discrimination demonstrates that women confronters are generally disliked by others and perceived as whiny

complainers (Crosby, 1993; Devine, 1989; Kaiser & Miller, 2003; Kowalski, 1996; Swim, Cohen, & Hyers, 1998). As such, it appears that women's concerns about the potential negative costs of confronting gender discrimination are well-founded.

Confronting Discrimination: Definitions, Importance, and Prevalence

The psychological literature examining confronting gender discrimination varies tremendously in its empirical operationalizations of what behaviors specifically constitute a confrontation, ranging from changes in facial expressions (e.g., Woodzicka & LaFrance, 2001) to direct and clear verbal expressions (e.g., Swim & Hyers, 1999). In much of the existing relevant work, confronting is construed as engaging with perpetrators specifically about their discriminatory behavior. Kaiser and Miller (2004) define confronting as a target's expression of disapproval of other people's discriminatory remarks or behaviors. Other behavioral outcomes, such as filing a discrimination complaint with Human Resources in the workplace, might also be strategies for addressing discrimination without necessarily involving contact with the source of discrimination. While qualitatively different than *confronting* the perpetrator of gender discrimination, *reporting* the incident to an authority at work can be an effective and valuable means to address gender-based mistreatment and prevent its future occurrence (Gutek & Koss, 1993; Novick & Isaacs, 2010). Utilizing Kaiser & Miller's (2004) definition of confrontation, the present work focuses on women's behavioral intentions to engage in direct conversation with the source of the gender discrimination as our outcome of interest.

Broadly, confronting discrimination in the workplace is an important and highly effective strategy to reduce future discrimination and mitigate the potential negative consequences of said discrimination. Confronting a perpetrator of discrimination offers the possibility of some specific benefits to the target, in particular. Compared to non-confronters, women who decide to

confront gender discrimination report feeling more satisfied with their responses (Dickter, 2012; Hyers, 2007). Suppressing the negative emotional responses associated with experiencing prejudice can negatively effect the self (Shelton, Richeson, Salvatore, & Hill, 2006), as can the regret and rumination that might occur after choosing not to confront (Brosschot, Gerin, & Thayer, 2006). Active coping strategies, such as confronting, can even reduce the negative health consequences associated with experiencing discrimination (Chaney, et al., 2015; Foster, 2015; Krieger & Sidney, 1996; McLaughlin, Hatzenbeuhler, & Keyes, 2010; Noh & Kaspar, 2003; Sanchez, Himmelstein, Young, Albuja, & Garcia, 2016). When a targeted individual confronts the person or persons engaging in discriminatory behavior, the target may feel a greater sense of empowerment and competence, more solidarity with fellow ingroup members, higher self-esteem, and increased value of the stigmatized or marginalized social group overall (Gervais, Hillard, & Vescio, 2010; Haslett & Lipman, 1997; Scheepers, Branscombe, Spears, & Doosje, 2002; Shelton, et al., 2006; Swim & Hyers, 1999).

Confronting someone who says something prejudiced is also an opportunity to educate the person or people who made that statement and potentially change their future behavior (Czopp, et al., 2006). Directly confronting someone who is engaging in biased speech can promote a reduction in expressions of prejudice (Blanchard, Crandall, Brigham, & Vaughn 1994; Czopp & Monteith, 2003; Czopp, et al., 2006; Fazio & Hilden, 2001). In contrast to confronting, staying silent and refraining from challenging or confronting bias in everyday life may implicitly communicate that prejudice is tolerated in that particular social context (Blanchard, et al., 1994). Moreover, the lack of objection is likely to promote a norm among dominant group members similar to pluralistic ignorance (Miller & McFarland, 1991; Prentice & Miller, 1993), such that the perceived seriousness of the discrimination is minimized by others' inaction. Refraining from

confronting discrimination can lead others to wrongly believe that such behaviors are acceptable, leaving other marginalized group members vulnerable to further discrimination, as well (Czopp, et al., 2006).

Existing Explanations for Low Base-Rates of Confronting Discrimination

Theoretically, nearly everyone has the opportunity to speak out against gender discrimination and call attention to any unfair treatment they may experience. However, for the reasons described previously (e.g., social and professional costs), women are quite unlikely to engage in direct confrontation with the perpetrator of a gender discrimination situation. Even when found to be offensive and worth objecting to, women are unlikely to publicly confront others' expressions of prejudice (e.g., Stangor, Swim, Van Allen, & Sechrist, 2002). One study found that a mere 4% of women actually chose to engage in direct verbal confrontation when interacting with a sexist interviewer (Woodzicka & LaFrance, 2001). The authors have suggested that emotional forecasting may be to blame for this discrepancy between anticipated and actual confronting behavior, such that women anticipate anger (which is a motivating emotional state) but instead feel anxiety (which is a demotivating emotional state) (Woodzicka & LaFrance, 2001). Swim and Hyers (1999) similarly found that only 16% of women chose to confront a sexist interaction partner with direct verbal comments. More than half of the women in this study did nothing when exposed to sexist remarks from a confederate, even though 91% of those who did not confront reported negative thoughts and feelings about the sexist confederate.

These results suggest that it is not simply the case that most women are not upset by sexist remarks, and thus uninterested in confronting the aggressor. Instead, there appears to be a process of psychological inhibition that curbs the choice to confront. Historically marginalized

groups, such as women and people of color, are often hesitant to publicly admit that they experience prejudice in their daily lives (Feagin & Sikes, 1994; Goldman, 2001; Kaiser & Miller, 2001; Stangor, et al., 2002). This, in part, is due to targets' beliefs that their claims of discrimination will not be met with support from others. Sadly, extensive research across a variety of contexts suggests that targets' concerns about confronting are, in fact, valid. Swim and Hyers (1999) suggest that women refrain from confronting because they are concerned about self-presentation. Women's fears appear to be justified, as women who confront sexism are viewed more negatively than those who do not (Dodd, Giuliano, Boutell, & Moran, 2001). As demonstrated in work by Shelton and Stewart (2004), targets' perceptions of the social costs associated with confronting discrimination play an important role in shaping whether or not the individual ultimately chooses to confront. The social and professional costs of confronting can include being humiliated, doubted about the event, denied promotion opportunities at work, and even terminated from one's job as a form of retaliation (Fitzgerald, Swan, Fischer, 1995; Kaiser & Major, 2006). People express worry about job loss and the potential for retaliation when reporting discrimination (Leslie & Gelfland, 2008).

People also tend to underestimate the extent to which perceived social costs will play a role in their decision of whether or not to confront (Cadieux & Chasteen, 2015; Czopp & Monteith, 2003; Eliezer & Major, 2012; Feagin & Sikes, 1994; Kite & Whitley, 1998; Kroeper, Sanchez, & Himmelstein, 2014; Shelton & Stewart, 2004). Specifically, women may inhibit the desire to confront the perpetrator of gender discrimination because of the overwhelming anticipated costs of confronting. Using a retrospective methodology, Kaiser and Miller (2001) found that women reported engaging in less confronting behavior when they viewed the interpersonal costs of confronting (e.g., being disliked) to be high. Targets of discrimination

might therefore be hesitant to confront because it feels more important to maintain a positive image of oneself in their social and professional contexts than to confront (Sechrist, Swim & Stangor, 2004). If the perceived costs are high, people will be less likely to make a complaint or confront the aggressor (Ashburn-Nardo, Blanchard, Petersson, Morris, & Goodwin, 2014; Crosby, 1993; Haslett & Lipman, 1997; Major & Sawyer, 2009; Shelton & Stewart, 2004).

Lastly, confronting an individual who has expressed prejudice or behaved in a discriminatory way to one's group can be inherently stressful and anxiety provoking. Intergroup interactions can be taxing for historically marginalized groups even when relatively neutral. The emotional burden targets may feel when experiencing discrimination likely heightens intergroup anxiety further, potentially reducing the appeal of confronting the aggressor (MacInnis & Page-Gould, 2015; Shelton, Dovidio, Hebl, & Richeson, 2009; Trawalter, Richeson, & Shelton, 2009). As such, women's confidence in their ability to confront gender discrimination likely shapes their comfort and willingness to confront (Kaiser & Miller, 2004). For example, women who report lower confidence in their capacity for addressing bias (compared to those with higher confidence) show greater likelihood of avoiding intergroup interactions where they may encounter prejudice (Cohen & Swim, 1995). As such, it is important to account for women's individual differences in confrontation-related anxiety when examining their intentions to confront gender discrimination.

"Complainer Confirmation Anxiety" as a Novel Barrier to Confronting

Not only are claimants of discrimination perceived by others to be complainers (Kaiser & Miller, 2003; Kowalski, 1996); potential discrimination confronters are likely aware that they might be perceived as a complainer and may want to avoid being seen as such (Mallett & Wagner, 2011). Indeed, African Americans do report feeling concern that after reporting

discrimination they will be viewed by others as "complainers" or "troublemakers" (Feagin & Sikes, 1994). These findings suggest that before engaging in confronting behavior, individuals from historically marginalized groups may be cognitively weighing the potential costs and benefits of confronting the perpetrator of discrimination. Specifically, targets of discrimination likely consider the risk of being negatively stereotyped by others as a complainer when deciding whether or not to confront. However, this has yet to be examined empirically. It remains untested whether or not women might report feeling worried about being perceived as a complainer upon confronting sexism or gender discrimination, and if these anxieties may, in turn, shape their likelihood of confronting.

Members of stigmatized groups often harbor concerns that their behaviors could confirm negative stereotypes about them and their group members (Crocker, Major, & Steele, 1998; Schmader, Johns, & Forbes, 2008; Shapiro & Neuberg, 2007; Steele, 1997; Steele, Spencer, & Aronson, 2002). I propose that women who are the targets of discrimination may experience a state of *complainer confirmation anxiety* when provided the opportunity to confront. In other words, women who are discriminated against are presented with a dilemma and have to choose one of two options: confront prejudice directly and inadvertently confirm the negative stereotype that women are complainers, or refrain from confronting to avoid confirming that negative stereotype and leave sexism unchallenged. As such, even when women identify and label an event at work as gender discrimination, they may be hesitant to confront the source of discrimination because the act of confronting itself ironically serves as implicit confirmation that women are complainers, given that confronting is a form of dissent. I propose that women may avoid confronting gender discrimination due to anxiety that their confronting behavior would be perceived by others as confirmatory evidence that women who claim discrimination are merely

complainers. I therefore expect that women who self-report higher levels of complainer confirmation anxiety would be less inclined to confront gender discrimination in the workplace context.

Organizational Culture and Confronting Behavior

While individual differences, such as concerns about social costs or generalized confrontation-related anxiety, likely shape the extent to which women feel comfortable to confront gender discrimination in the workplace, one domain that has been widely neglected in the broader literature is the role of the organizational context in shaping women's decisions to confront discrimination. Perhaps the greatest potential ally in reducing gender discrimination and facilitating women's willingness to confront discriminatory actors is the organization, itself (Glick, 2014). Whatever norms and practices an organization prioritize are communicated to its employees (e.g., Cooke & Rousseau, 1988), which often influences their behavior (for reviews, see Kondra & Hurst, 2009; Mowday & Sutton, 1993). Although definitions vary widely across the literature, organizational culture is broadly defined as the shared values and beliefs of the individual employees within an organization (Robbins & Coulter, 2005; Scott-Fidlay & Estabrooks, 2006). Organizational cultures communicate (implicitly and explicitly) to members how things should, and should not, be done.

The culture that an organization fosters can shape how members of the organization choose to respond to difficult challenges that may arise. For example, some organizations may have a culture in which emphasis is placed on celebrating successes and focusing on positive features (i.e., self-enhancement; Pfeffer & Fong, 2005), whereas other organizations may promote a culture of critical self-evaluation and motivation for learning from mistakes (i.e., self-reflection; Ashford, Blatt, & Walle, 2003). When gender discrimination occurs within an

organization, I expect that the organization's culture likely shapes how employees in the company would respond to a discrimination incident. Specifically, cultures that emphasize self-reflection may be especially amenable to addressing gender discrimination through confrontation, given that self-reflective organizational cultures offer an openness to discussing negative events with the goal of the organization learning from them.

Research in the domain of whistleblowing (i.e., disclosure of illegal or unethical behavior to appropriate agencies; Near & Miceli, 1985) shows that there are concrete steps that organizations can take to promote a culture in which employees feel comfortable to act as whistleblowers when necessary (Berry, 2004). For example, organizations with cultures that promote "discussability" (i.e., open discussion internally about ethical dilemmas and potential misconduct, Corporate Ethical Values Model; Kaptein, 2008) foster whistleblowing by both increasing confrontation and reporting to management (Kaptein, 2011). Taken together, this work shows that the norms organizations set through cultural expectations can have an important impact on how people within the organization behave and respond to issues that may arise.

As such, I presume that if an organization establishes a culture in which speaking out against unfair treatment (like discrimination) is acceptable, and perhaps even valued, then individuals in the organization may feel more inclined to confront discrimination in the workplace. While yet to be examined in the context of discrimination, I hypothesize that when an organization promotes a culture high in discussability, such as in the form of an "open-door culture" where employees feel that the organization values self-reflection about negative events, women will report experiencing less complainer confirmation anxiety, which will, in turn, be associated with an increased likelihood of confronting gender discrimination in the workplace.

While aspects of an organization's culture may reduce women's experiences of complainer confirmation anxiety, there may also be facets of an organization's culture that might suppress confronting behavior by increasing complainer confirmation anxiety. Research in the domain of interpersonal interactions demonstrates that, somewhat ironically, when intergroup harmony is emphasized historically marginalized groups are less likely to attend to cues of group-based inequality (e.g., identify discrimination) (Saguy, Tausch, Dovidio, & Pratto, 2009). This has important implications for social change, such that a cognitive focus on intergroup commonalities makes inequalities less salient, therefore reducing the likelihood that said inequality will be addressed appropriately (Saguy, Schori-Eyal, Hasan-Aslih, Sobol, & Dovidio, 2016). While values like collaboration, harmony, and similarity among group members are imperative for organizational functionality and knowledge sharing (e.g., Wegner & Snyder, 2000; Yang, 2007), I explore the possibility that organizations that explicitly highlight a collaboration-focused culture in which members prioritize "getting along" with one another might indeed suppress women's confronting behaviors in the face of gender discrimination by increasing complainer confirmation anxiety. An organizational culture that focuses on employees working together amicably and collaboratively may be psychologically at odds with direct confrontation of a group member's discriminatory behavior. The present work therefore seeks to test the ways in which various organizational cultures may influence women's decisions to confront gender discrimination in the workplace via the levels of complainer confirmation anxiety that these organizational cultures might elicit.

Present Research

Across three studies, I examine how women's experiences of complainer confirmation anxiety relate to their behavioral intentions of confronting gender discrimination in the

workplace. Firstly, guided by the steps outlined in Flake, Pek, & Hehman (2017) for the development of new psychological measures, I seek to develop the validity and reliability of my measure of complainer confirmation anxiety. Study 1 aims to document the associations between complainer confirmation anxiety and behavioral intentions to confront gender discrimination, over and above a rigorous selection of control variables, using a 4-item scale adapted from Najdowski, Bottoms, and Goff (stereotype threat during interactions with police; 2015). Study 2 further develops the complainer confirmation anxiety scale through an exploratory factor analysis, as well as demonstrates divergent validity of the scale, resulting in a seven-item complainer confirmation anxiety scale. Using an experimental paradigm, Study 3 tests whether or not organizational cultures can shape the extent to which women report subjectively experiencing complainer confirmation anxiety following gender discrimination, and how this, in turn, effects behavioral intentions to confront and avoid a discriminatory supervisor at work. All data exclusions are reported, data were never collected after analysis, and all power analyses were conducted *a priori*.

Pilot Study

The purpose of this pilot study is to (a) explore a measure of complainer confirmation anxiety, and (b) demonstrate that over and above study controls, complainer confirmation anxiety is associated with lower behavioral intentions to confront gender discrimination among adult women in a workplace context. The primary independent variable of interest was women's levels of complainer confirmation anxiety, and the dependent variable was women's behavioral intentions to confront their supervisor—the source of gender discrimination in the hypothetical scenario. The study controls included: age (Eagly, Diekman, Johannesen-Schmidt, & Koenig, 2004), prior or current employment in a STEM field (Rhoton, 2011), perceived social costs

(Shelton & Stewart, 2004), belief that confrontation would be effective in changing the outcome (Good, Moss-Rascusin, & Sanchez, 2012), generalized confrontation-related anxiety (for a review, see: MacInnis & Page-Gould, 2015), construal of the scenario as not discriminatory (O'Brian, Major, & Simon, 2012), and trait optimism (Kaiser & Miller, 2004).

Methods

Participants. For conducting multiple regression with 8 predictors with a power of .80, the power analysis yielded a recommended sample of 109 participants to detect a medium effect size of $f^2 = .15$ at $\alpha = .05$ (Faul, Erdfelder, Lang, & Buchner, 2007). One-hundred and fourteen U.S.-based Amazon Mechanical Turk (mTurk) workers completed the study. After excluding two people who later reported self-identifying as men, the final sample consisted of 112 women, with ages ranging from 20 to 65 years ($M = 35.30$, $SD = 9.76$). Sixty-eight women reported never having worked in the field of science, technology, engineering, or math (STEM), 43 reported currently or previously working in a STEM field, and one reported that she could not remember. Eighty-two identified as White/European American, nine as Black/African American, eight as Latinx/Hispanic, seven as multiracial, four as Asian American/East Asian/South Asian, one as Native American/Alaska Native, one as Native Hawaiian/Pacific Islander. One hundred identified as straight/heterosexual, eight as bisexual/queer, two as lesbian/gay, and two as asexual.

Procedure and materials. Participants were recruited on mTurk for a study about experiences in the workplace. After granting informed consent, potential participants completed a brief three-item eligibility questionnaire. Participants were asked to report their gender, whether or not they currently, or have ever, worked in a STEM field, and whether or not they currently, or have ever, worked a job in which they were a salaried employee (as opposed to

being paid an hourly wage). The items about employment in STEM fields and type of wages earned were designed to disguise the study eligibility criteria. Individuals who indicated that they self-identified as women, and therefore were eligible to participate, were directed to the study survey. By asking participant gender in the eligibility section, this also served to make gender identity salient.

First, participants were asked to read a hypothetical vignette depicting gender-based discrimination, in which they imagined working at a start-up technology company and discovered they were being paid substantially less than a coworker (who was a man) with the same job title and experience. In the vignette, it was revealed that their shared supervisor (also a man) was responsible for deciding the salary of her and her coworker. Participants were then asked to think about how they would feel and respond to such a discovery at work. Next, participants completed the study measures. Lastly, participants were debriefed and compensated $1.00. All study materials are included in Appendix A.

Complainer Confirmation Anxiety Scale. Participants completed our four-item measure of complainer confirmation anxiety ($\alpha = .91$; adapted from Najdowski, et al., 2015). Participants rated their agreement with these statements on a Likert scale ranging from 1 (*strongly disagree*) to 7 (*strongly agree*). Responses to these items were averaged, such that higher numbers indicated higher levels of subjective complainer confirmation anxiety. Items included, "I worry that if I confront my supervisor, I would be seen as a complainer because of my gender," "I worry that if I confront my supervisor, his evaluation of me would be influenced by my gender," "I worry that if I confront my supervisor, I would be seen as trying to 'play the gender card,'" and "I worry that, because I know the stereotype about women being oversensitive, my anxiety

about confirming that stereotype would negatively influence the conversation with the supervisor."

Behavioral Intentions of Confronting Gender Discrimination. Participants completed the dependent variable by answering a single item measuring their behavioral intentions to confront the supervisor, "How likely would you be to confront your supervisor about the salary difference?" on a Likert scale ranging from 1 (*not at all likely*) to 7 (*very likely*).

Study Control Variables. Participants rated their agreement with a variety of topics that constituted the control variables, on a Likert scale ranging from 1 (*strongly disagree*) to 7 (*strongly agree*). The *perceived social costs* of confronting were measured by asking, "I worry that if I confront my supervisor, I would be disliked by others at work." Participants' beliefs about *confrontation effectiveness* were assessed by asking, "I worry that if I confront my supervisor, the conversation with him would not result in him changing the salary difference between me and my coworker." Participants' levels of *generalized confrontation-related anxiety* were assessed by asking "I worry that if I confront my supervisor, the conversation would cause me anxiety or discomfort." Participants' endorsement of alternate explanations for the salary difference (i.e., failing to *construe the scenario as discriminatory*) ($r = .79$, $p < .001$) were measured by averaging two items, "There is probably a justification for why I am being paid less than my coworker," and "There is probably a reason I don't know about that would explain why my supervisor gave my coworker a higher salary." To measure *trait optimism*, participants were asked to rate the statement, "Overall, I would say that I'm an optimistic person," on a Likert scale ranging from 1 (*not at all like me*) to 7 (*very much like me*).

Participant Demographics. Lastly, participants were asked to report their gender and other demographic information, from which the two men who participated in the survey were

identified for exclusion from the analytic sample. Participants' previous work history with STEM fields (taken from the eligibility questionnaire) was also included as a study control, as women in STEM fields are disproportionately exposed to gender discrimination compared to other fields (Rhoton, 2011). A dummy code was created, such that those who reported never having held a job in STEM at any point in time were coded as a "0" and those who had held a job in STEM either currently or in the past were coded as a "1."

Results

Descriptive statistics and inter-item correlations between all variables are reported in Table 1. Of note, participants higher in complainer confirmation anxiety also reported significantly higher perceived social costs, $r = .48$, $p < .001$, greater belief in confrontation effectiveness, $r = .49$, $p < .001$, greater generalized confrontation-related anxiety, $r = .55$, $p < .001$, and lower levels of trait optimism, $r = -.24$, $p < .01$. Participants higher in generalized confrontation-related anxiety also reported significantly higher perceived social costs, $r = .56$, $p < .001$, and greater belief in confrontation effectiveness, $r = .66$, $p < .001$. Lastly, participants who reported higher perceived social costs also showed greater belief in confrontation effectiveness, $r = .44$, $p < .001$.

Confirmatory Factor Analysis of Complainer Confirmation Anxiety Scale. SAS version 9.4 was used to estimate the latent factor structure of the complainer confirmation anxiety scale, using maximum likelihood procedures. The variance of the latent factor, complainer confirmation anxiety, was constrained to 1, whereas the variances of the four indicator items were allowed to be freely estimated. In addition, the error variances of the four indicator items were allowed to covary with one another. Regarding the covariances among errors, results indicated that the covariance between the errors of items 2 and 4 was the only

parameter that significantly improved the fit of the model, $r = .14$, $SE = .05$, $t = 3.02$, $p < .01$ (Table 2). Therefore, this parameter was retained, and the others were removed from the model for parsimony. The scale demonstrated strong factor structure (Figure 1), including a non-significant χ^2, CFI above 0.95, and RMSEA below 0.06 (Hu & Bentler, 1999), as well as a confidence interval of the RMSEA that included zero and a χ^2/df ratio is less than 3.0 (Kline, 1998): $p = .95$ $\chi^2/df = 0.005$, CFI = 1.00, RMSEA = 0, 90% CI RMSEA [0.00 to 0.04].

Regressing likelihood of confronting on complainer confirmation anxiety and controls. All regression analyses were conducted using SPSS (Version 24). As predicted, higher levels of complainer confirmation anxiety were associated with a lower likelihood of confronting the supervisor, $b = -0.22$, $SE = .09$, $t = -2.49$, $p = .01$, 95% CI [-0.40, -0.05] (Table 3). Upon the addition of our study controls—age, employment in a STEM field (0 = non-STEM, 1 = STEM), perceived social costs, belief in the effectiveness of confrontation, generalized confrontation-related anxiety, construal of the scenario as not discriminatory, and trait optimism—I found that higher levels of complainer confirmation anxiety remained marginally significantly associated with lower likelihood of confronting the supervisor, $b = -0.23$, $SE = .12$, $t = -1.94$, $p = .06$, 95% CI [-0.23, -1.94] (Table 4). Taken together, these findings suggest that women who report greater concerns that confronting a supervisor about gender discrimination might result in confirming the stereotype that women are complainers are indeed less inclined to confront the discriminatory supervisor.

Discussion

Results from this pilot study generally supported our hypotheses. Firstly, our four-item measure of complainer confirmation anxiety (adapted from Najdowski, et al., 2015) showed acceptable factor structure in the confirmatory factor analysis, as well as predictive validity, such

that higher levels of complainer confirmation anxiety were associated with lower behavioral intentions to confront gender discrimination in the workplace. When adding in our study control variables—age, employment in a STEM field, perceived social costs, belief in the effectiveness of confrontation, generalized confrontation-related anxiety, construal of the scenario as not discriminatory, and trait optimism—a marginally significant effect of complainer stereotype on participants' behavioral intentions to confront was observed. However, one of the factor loadings for the complainer confirmation anxiety scale, although statistically significant, was considerably lower than the other items. Given that the effect of the complainer stereotype scale became marginally significant upon the addition of the control variables, it was decided that it would be important for subsequent studies to revisit the scale itself. Perhaps the items (adapted from a race-related policing context) would benefit from being modified further to better capture the underlying psychological experience of complainer confirmation anxiety in the context of confronting gender discrimination in the workplace. In addition, control variables in future studies would benefit from employing different question stems from the measure of complainer confirmation anxiety, given that measurement similarity (i.e., shared method variance) may have artificially inflated associations between complainer confirmation anxiety and the control variables.

Providing evidence for convergent validity, I found that participants who reported higher levels of complainer confirmation anxiety were less optimistic, perceived higher social costs to confronting, viewed confrontation as a more effective strategy, and showed higher levels of generalized confrontation anxiety. Of note, generalized confrontation-related anxiety was the control variable most strongly correlated with complainer confirmation anxiety. As such, it was decided that future studies would employ a more developed scale as a measure of generalized

confrontation-related anxiety. Importantly, the present study has several limitations. All data were correlational in nature and therefore causal relationships should be interpreted with caution. In addition, behavioral intentions to confront was measured with a single item, as were several of the control variables. As such, associations between complainer confirmation anxiety and confronting intentions should be replicated.

Study 1

The purpose of this study is to (a) create a new, expanded measure of complainer confirmation anxiety and refine the measure through exploratory factor analysis; (b) demonstrate divergent validity for the proposed measure of complainer confirmation anxiety; and (c) test whether or not complainer confirmation anxiety is associated with both a lower likelihood of deciding to confront a discriminatory supervisor and report the discrimination to a Human Resources department (each as both continuous and dichotomous outcomes) among adult women, over and above study controls. Again, the primary independent variable of interest was women's levels of complainer confirmation anxiety, and the four dependent variables were women's behavioral intentions to confront their supervisor and report to HR, each as a continuous and dichotomous ("Yes" or "No") outcome. I hypothesized that over and above generalized confrontation anxiety, complainer confirmation anxiety would be associated with significantly higher behavioral intentions to confront their supervisor and report to HR, as well as significantly higher likelihood of choosing to confront (dichotomous) the supervisor and report to HR.

Given that confrontation-related anxiety was the most theoretically similar construct to complainer confirmation anxiety, and the most highly correlated with complainer confirmation anxiety in the pilot study, confrontation-related anxiety was measured in a full scale adapted

from an existing measure and conserved as a control variable. To demonstrate divergent validity with the complainer stereotype measure, two additional measures were collected: trait agreeableness (McCrae & Costa, 1999) and self-monitoring (i.e., readiness to adapt to the needs of a social environment) (Snyder, 1974; 1979). As such, I expected complainer confirmation anxiety to be uncorrelated with agreeableness and self-monitoring.

Methods

Participants. To conduct structural equation modeling (SEM), the required sample size is at least 150 (Anderson and Gerbing, 1988). As such, 162 U.S.-based mTurk workers who identified as women completed the study and were compensated $1.50. They ranged in age from 19 to 67 years (M = 35.03, SD = 10.66). One hundred and twelve identified as White/European American, 24 as Black/African American, 12 as Asian American/East Asian/South Asian, 10 as multiracial, three as Latina, and one as Native American. One hundred and forty identified as straight/heterosexual, 11 as bisexual/queer, seven as gay/lesbian, two as asexual, one as questioning, and one as another sexual orientation group not listed.

Procedure and Materials. The procedure and materials for Study 1 were identical to that of the pilot study, with several notable exceptions. First, participants were asked to read a similar hypothetical vignette depicting gender-based discrimination. Next, participants completed the revised measure of complainer confirmation anxiety, which consisted of nine items on a Likert scale ranging from 1 (*strongly disagree*) to 7 (*strongly agree*). Sample items included, "Because of my gender, I worry that if I confront my supervisor I would be seen as a complainer," and "Because of my gender, I worry that if I confront my supervisor it would confirm the stereotype that women are oversensitive." Rather than a single-item measuring generalized confrontation anxiety used in the pilot study, a multi-item scale that has been used in previous research was

employed (adapted from Kaiser & Miller, 2004; α = .91). Participants indicated the extent to which they agreed with six statements on a Likert scale ranging from 1 (*strongly disagree*) to 5 (*strongly agree*). Sample items included, “I experience anxiety when I confront people,” and “I am quite skilled at confronting people” (reverse-coded). All items were averaged, such that higher scores indicated more generalized confrontation-related anxiety.

In addition to the variables described above, two measures were assessed to demonstrate divergent validity with the complainer stereotype measure: the personality trait of agreeableness, and participants’ levels of self-monitoring. To measure agreeableness, participants indicated the extent to which they agreed with nine statements about themselves on a Likert scale ranging from 1 (*strongly disagree*) to 5 (*strongly agree*) (Big-Five Inventory: Goldberg, 1993; α = .82). Sample items included “I see myself as someone who like to cooperate with others,” and “I see myself as someone who is sometimes rude to others” (reverse-coded). All items were averaged, such that higher numbers indicated greater levels of trait agreeableness. To measure participants’ levels of self-monitoring, they indicated the extent to which seven statements describe themselves on a Likert scale ranging from 0 (*certainly, always false*) to 5 (*certainly, always true*) (Ability to Modify Self-Presentation subscale of the Self-Monitoring Scale; Lennox & Wolfe, 1984; α = .90). Sample items included, “Once I know what the situation calls for, it’s easy for me to regulate my actions accordingly,” and “Even when it might be to my advantage, I have difficulty putting up a good front” (reverse-coded). All items were averaged, such that higher numbers indicated greater ability to modify one’s self-presentation.

As for the dependent variables, participants completed a continuous measure of their behavioral intentions to confront their supervisor, “How likely would you be to bring up the salary difference with your supervisor?” on a Likert scale from 1 (*not at all likely*) to 7 (*very*

likely), as well as a dichotomous measure: "If you had to decide right now, would you bring up the salary difference with your supervisor?" with a "yes" or "no" response option. Similarly, a continuous measure of participants' willingness to report the discrimination to Human Resources, "How likely would you be to bring up the salary difference with Human Resources?" was measured on a Likert scale from 1 (*not at all likely*) to 7 (*very likely*), as well as a dichotomous measure: "If you had to decide right now, would you bring up the salary difference with Human Resources?" with a "yes" or "no" response option. Lastly, participants were asked to report their gender and other demographic information. Participants were debriefed and compensated $1.00. All study materials are included in Appendix B.

Results.

Inter-item correlations and descriptive statistics are reported in Table 5. Of note, participants higher in generalized confrontation-related anxiety reported significantly higher complainer confirmation anxiety, $r = .28$, $p < .001$. In addition, variables assessing behavioral intentions to confront the supervisor, behavioral intentions to report to HR, decision to confront the supervisor, and decision to report to HR were all correlated with one another at $p < .001$.

Exploratory and Confirmatory Factor Analysis of Complainer Confirmation Anxiety Scale. The Cronbach's alpha for the nine-item scale was .96, suggesting strong reliability. To investigate the number of constructs and underlying structure of this new extended measure of complainer confirmation anxiety, an exploratory factor analysis using principal-axis factor extraction was conducted on the full nine-item scale. In an effort to potentially reduce the scale in length to its essential components, the factor loadings of the individual items were reviewed. The scree plot and Eigen values indicated a one-factor solution, as hypothesized (Table 6). Items 4, 5, 6, and 7 showed the lowest factor loadings, and thus these were identified

as possible items to exclude for parsimony. The factor analyses procedures described above were repeated removing item 4, again resulting in a one-factor solution, and a Cronbach's alpha for the eight-item scale was .96. Once more, the process was repeated removing item 7 (item 5 was retained because of its conceptual contribution to the scale), again resulting in a one-factor solution, and a Cronbach's alpha for the eight-item scale was .95.

Next, this seven-item scale was tested in a confirmatory structural equation model with each of the seven items as the manifest variables predicting the latent variable of the complainer confirmation anxiety scale, allowing measurement error to be considered. SAS version 9.4 was used to estimate the latent factor structure of the complainer confirmation anxiety scale, using maximum likelihood procedures. The variance of the latent factor, complainer confirmation anxiety, was constrained to 1, whereas the variances of the seven indicator items were allowed to be freely estimated. In addition, the error variances of the seven indicator items were allowed to covary with one another. Regarding the covariances among errors, results indicated that the covariance between the errors of items 8 and 9, $r = .09$, $SE = 0.03$, $t = 3.10$, $p = .002$, items 6 and 9, $r = .05$, $SE = 0.03$, $t = 1.78$, $p = .07$, items 2 and 9, $r = -.12$, $SE = 0.02$, $t = -5.01$, $p < .001$, items 2 and 5, $r = -0.07$, $SE = 0.02$, $t = -2.84$, $p = .004$, and items 1 and 9, $r = -0.07$, $SE = 0.02$, $t = -3.44$, $p = .001$, significantly improved model fit (Table 7). Therefore, these parameters were retained, and the others were removed from the model for parsimony. General guidelines for good model fit specify that χ^2 is non-significant (Hu & Bentler, 1999) and that the χ^2/df ratio is less than 3.0 (Kline, 1998). Based on these criteria, the model in Figure 2 demonstrated strong fit, $\chi^2(9) = 6.45$, $p = .06$ $\chi^2/df = 0.72$. CFI should be close to .95 or higher (Hu & Bentler, 1999), such that a theoretical value of 1 indicates a perfect fit, and our observed CFI was 1.00. It is suggested that the RMSEA is .06 or lower (Hu & Bentler, 1999), such that a theoretical value of

0 indicates a perfect fit, and our observed RMSEA was 0.00. The 90% confidence interval for the RMSEA [0.00 to 0.07] contains 0, providing further evidence that the model offers good fit.

Divergent Validity for Complainer Confirmation Anxiety Scale. As hypothesized, complainer confirmation anxiety was uncorrelated with trait agreeableness, $r = -.02$, $p = .82$, and self-monitoring, $r = -.10$, $p = .25$, suggesting that complainer confirmation anxiety is conceptually distinct from both trait agreeableness and self-monitoring.

Regressing Behavioral Intentions of Confronting Supervisor on Complainer Confirmation Anxiety. Behavioral intentions to confront the discriminatory supervisor was measured two ways, as a continuous outcome (i.e., likelihood, ranging from *not at all likely* to *very likely*) and as a categorical outcome (i.e., decision, *yes* or *no*). First, using multiple linear regression, participants' likelihood of confronting the supervisor was regressed on generalized confrontation-related anxiety and complainer confirmation anxiety. As hypothesized, participants higher in complainer confirmation anxiety demonstrated significantly lower likelihood of confronting the supervisor, $b = -0.21$, $SE = 0.07$, $t = -2.80$, $p = .006$, 95% CI [-0.35, -0.06], holding generalized confrontation anxiety constant (Table 8). Participants higher in generalized confrontation-related anxiety similarly showed significantly lower likelihood of confronting the supervisor, $b = -0.50$, $SE = 0.12$, $t = -4.24$, $p < .001$, 95% CI [-0.73, -0.27]. Second, using logistic regression, participants' decisions of whether or not to confront the supervisor (0 = no, 1 = yes) was regressed on generalized confrontation-related anxiety and complainer confirmation anxiety. As hypothesized, participants higher in complainer confirmation anxiety were significantly less likely to decide to confront the supervisor, $b = -0.23$, $SE = 0.10$, $Wald = 4.85$, $p = .03$, $OR = 0.80$, 95% CI_{OR} [0.65, 0.98], holding generalized confrontation-related anxiety constant (Table 9). Participants higher in generalized confrontation-related anxiety similarly showed significantly

lower likelihood of deciding to confront the supervisor, $b = -0.40$, $SE = 0.16$, $Wald = 6.31$, $p = .01$, $OR = 0.67$, 95% CI_{OR} [0.49, 0.92]. Lastly, interactions between participants' levels of complainer confirmation anxiety and generalized confrontation-related anxiety were explored, and no significant interactions predicting behavioral intentions to confront the supervisor were observed across the two dependent variables.

Regressing Behavioral Intentions of Reporting to Human Resources on Complainer Confirmation Anxiety. Behavioral intentions to report to Human Resources (HR) was measured two ways, as a continuous outcome (i.e., likelihood, ranging from *not at all likely* to *very likely*) and as a categorical outcome (i.e., decision, *yes* or *no*). First, using multiple linear regression, participants' likelihood of reporting to HR was regressed on generalized confrontation-related anxiety and complainer confirmation anxiety. Participants higher in generalized confrontation-related anxiety showed significantly lower likelihood of reporting to HR, $b = -0.50$, $SE = 0.12$, $t = -4.24$, $p < .001$, 95% CI [-0.73, -0.27]. However, complainer confirmation anxiety did not significantly predict participants' likelihood of reporting to HR, $b = -0.11$, $SE = 0.08$, $t = -1.310$, $p = .19$, 95% CI [-0.26, 0.05], (Table 8). Second, using logistic regression, participants' decision of whether or not to report to HR (0 = no, 1 = yes) was regressed on generalized confrontation-related anxiety and complainer confirmation anxiety. Participants higher in generalized confrontation-related anxiety showed significantly lower likelihood of deciding to report to HR, $b = -0.33$, $SE = 0.17$, $Wald = 3.88$, $p = .05$, $OR = 0.72$, 95% CI_{OR} [0.52, 0.99]. However, complainer confirmation anxiety did not predict participants' decision of whether or not to report to HR, $b = -0.07$, $SE = 0.11$, $Wald = 0.49$, $p = .49$, $OR = 1.08$, 95% CI_{OR} [0.88, 1.32], holding generalized confrontation anxiety constant (Table 9). Lastly, interactions between participants' levels of complainer confirmation anxiety and generalized confrontation-related

anxiety were explored, and no significant interactions predicting behavioral intentions to report to HR were observed across the two dependent variables.

Discussion

One of the main goals of the present study was to further develop the instrument measuring complainer confirmation anxiety. Using exploratory factor analysis, I found that a seven-item solution was optimal for our complainer confirmation anxiety measure. The complainer confirmation anxiety scale showed high reliability, as well as divergent validity. As hypothesized, complainer confirmation anxiety was not correlated with trait agreeableness nor self-monitoring. Also as hypothesized, participants higher in complainer confirmation anxiety showed significantly lower behavioral intentions to confront a discriminatory supervisor, over and above generalized confrontation-related anxiety, suggesting that this association between the key study variables is robust. This was found using both a continuous measure of intentions to confront (replicating the associations documented in the pilot study), as well as a categorical (i.e., yes vs. no) measure. Importantly, contrary to my hypothesis, complainer confirmation anxiety was unrelated to participants' behavioral intentions to report the discrimination to the company's Human Resources department, across both the continuous and categorical measures of HR intentions.

Study 2

The goal of the study was to identify ways that organizations can reduce complainer confirmation anxiety among women that experience gender discrimination by communicating a particular organizational culture that may facilitate confronting. Prior work related to organizational cultures shows that organizations that encourage organizational self-reflection (Ashford, et al., 2003) through open conversation around difficult topics and emphasize

"discussability" as a key cultural feature tend to promote employee whistle-blowing (Kaptein, 2008). The present study therefore explores whether or not organizations with such an "open door culture" may elicit higher levels of confronting gender discrimination in women by reducing their subjective levels of complainer confirmation anxiety. I hypothesize that women in an organization that promotes an open-door culture emphasizing self-reflection and discussability (compared to an organization with a "culture of collaboration" emphasizing group harmony, as well as a control condition where no company information about the culture is provided) will report significantly less complainer confirmation anxiety, resulting in greater behavioral intentions to confront a discriminatory supervisor and less avoidance of discussing the discrimination with said supervisor. In this study, I assign women participants to learn about one of three organizations—one with an open-door culture, one with a collaborative culture, and one with no cultural information—and then expose them to a hypothetical gender discrimination scenario and measure their intentions to confront and intentions to avoid a discriminatory supervisor. Specifically, I predict that there will be a significant indirect effect of condition on confronting intentions, as well as an indirect effect of condition on avoidance intentions, via complainer confirmation anxiety, such that participants in the open-door culture condition (compared to the other two conditions) will report significantly less complainer confirmation anxiety, which will, in turn, be associated with greater behavioral intentions to confront and lower behavioral intentions to avoid the discriminatory supervisor.

Lastly, I test competing hypotheses with regards to the culture of collaboration condition. In line with the work showing that harmony results in less attention to group-based inequality (Saguy, et al., 2009), our *irony of harmony hypothesis* is that participants in the collaborative culture condition (compared to control and open-door culture conditions) would report higher

levels of complainer confirmation anxiety (and therefore less confronting and greater avoidance of the discriminatory supervisor). Alternately, in line with other work showing that women are drawn to communal work environments (Diekman, Weisgram, & Belanger, 2015), our *benefits of collaboration hypothesis* predicts that participants will rate the culture of collaboration particularly favorably, but this condition will result in similar levels of complainer confirmation anxiety compared to the control condition. I therefore would expect that the culture of collaboration condition (compared to control condition) would not result in an indirect effect on our dependent variables (confronting and avoidance) via complainer confirmation anxiety. This study was preregistered (http://aspredicted.org/blind.php?x=yk4zc4).

Methods

Participants. To determine the required sample size *a priori*, a power analysis using G*Power software was conducted (Faul, et al., 2007). For conducting a one-way ANOVA with three conditions (control, "open-door culture," and "culture of collaboration") with a power of .90, the power analysis yielded a recommended sample of 207 participants to detect a medium effect size of $f = .25$ at alpha = .05. As such, 274 U.S.-based mTurk workers who identified as women completed the study and were compensated $1.85. A total of 56 participants failed the manipulation checks and/or attention checks and one participant expressed suspicion of the validity of the employee reviews. These 57 participants were thus excluded, resulting in an analytic sample of $N = 217$. Participants ranged in age from 19 to 74 years ($M = 37.56$, $SD = 12.10$). One hundred and fifty-five identified as White/European American, 19 as Black/African American, 17 as Latina, 14 as multiracial, and 12 as Asian American/East Asian/South Asian. One hundred and eighty-one identified as straight/heterosexual, 21 as bisexual/queer, two as

gay/lesbian, five as asexual, seven as questioning, and one as another sexual orientation group not listed.

Procedure and Materials. Participants were asked to review information about a company and were randomly assigned to one of three conditions: an organization with an "open-door" culture, an organization with a collaborative culture, and a control condition in which no information was provided about the organization's culture. Sample statements from the open-door culture condition included, "employees were actively encouraged to raise their concerns and speak out if something was wrong," and "it's clear that the company genuinely values employees discussing their concerns openly." Sample statements from the collaborative culture condition included, "employees were actively encouraged to work together to solve problems and ask for help," and "it's clear that the company genuinely values teamwork and promotes cooperation." In the control condition, participants were provided only with information about the type of company (which was provided to all three condition) without any description of the organizational culture. This information included, "NextBuy is a successful marketing company. This agency creates and implements marketing strategies to increase the sales and profits of other companies." This information about organizational culture was communicated to participants through an ostensibly real review from a current employee on the popular website, www.GlassDoor.com, in which employees share personal experiences about organizations. After exposure to the experimental conditions, participants provided their impressions of the organization. They were then asked to read a hypothetical gender discrimination scenario from the organization they read about, which was based on the wage gap scenario from Study 1. Participants completed the remainder of the study measures, and at the end they were asked to

report their gender and other demographic information. Participants were debriefed and compensated $1.85. All study materials are included in Appendix C.

Organizational Attractiveness. Participants completed a five-item measure of organizational attractiveness (α = .89; Highhouse, Lievens, & Sinar, 2003) on a Likert-type scale, ranging from 1 (*strongly disagree*) to 5 (*strongly agree*). Sample items include, "This company is attractive to me as a place for employment," and "A job at this company is very appealing to me."

Organizational Commitment to Collaboration Scale. Participants completed a 4-item scale measuring their perceptions of how collaborative the organizational culture was (α = .94) on a Likert-type scale ranging from 1 (*strongly disagree*) to 7 (*strongly agree*). Items included, "This organization is committed to having employees collaborate on projects," "This organization cares about employees working together to solve problems," "This organization genuinely values teamwork among employees," and "This organization is receptive to employees helping each other on projects."

Organizational Commitment to Receiving Feedback Scale. Participants completed a 4-item scale measuring their perceptions of the organization's commitment to receiving feedback (α = .93) on a Likert-type scale ranging from 1 (*strongly disagree*) to 7 (*strongly agree*). Items included, "This organization is committed to receiving feedback from its employees," "This organization cares about listening to its employees' concerns," "This organization genuinely values learning from employee experiences," and "This organization is receptive to suggestions from employees about ways to improve things at the organization."

Complainer Confirmation Anxiety Scale. Participants reported their levels of complainer confirmation anxiety on the 7-item scale used in Study 1 (α = .96).

Generalized Confrontation-Related Anxiety. Participants reported their levels of generalized confrontation-related anxiety on the same scale used in Study 1 (α = .90; Kaiser & Miller, 2004).

Behavioral Intentions to Confront Supervisor. As in Study 1, participants reported their behavioral intentions to confront the discriminatory supervisor with the item, "How likely would you be to bring up the salary difference with your supervisor?" ranging from 1 (*not at all likely*) to 7 (*very likely*).

Behavioral Intentions to Avoid Supervisor. Participants reported the extent to which they would intend to actively avoid discussing the salary difference with their discriminatory supervisor on a 5-item Likert-type scale (α = .93; adapted from Rattan & Dweck, 2010), ranging from 1 (*strongly disagree*) to 7 (*strongly agree*). Items included, "I would do my best to pretend to my supervisor that I didn't discover the salary difference," "I would avoid discussing the salary difference with my supervisor," "I would minimize conversation related to my salary with my supervisor," "I would try to refrain from interacting with my supervisor in contexts where my salary could be brought up," and "I would keep conversation about my salary to a minimum with my supervisor." Lastly, participants completed the manipulation and attention checks, as well as provided their demographic information.

Results

Inter-item correlations and descriptive statistics are reported in Table 10. Mean differences in all dependent variables by study condition are reported in Table 11. Of note, participant' evaluations of the organization's attractiveness, openness to feedback, and extent to which there was a collaborative culture were all positively correlated with one another at $p <$

.001. In addition, participants who reported greater behavioral intentions to confront the supervisor also showed significantly less avoidance of the supervisor, $r = -.64$, $p < .001$.

Evaluations of the Organization by Condition. First, I tested whether or not the three conditions differed in organizational attractiveness. A one-way ANOVA revealed that there were significant differences in perceived organizational attractiveness, $F(2,214) = 50.22$, $p < .001$. Tukey's post-hoc testing revealed that participants viewed the control condition, ($M = 3.57$, $SD = 0.76$), as significantly less attractive than both the collaborative culture condition ($M = 4.54$, $SD = 0.52$), $p < .001$, and the open-door culture condition, ($M = 4.44$, $SD = 0.57$), $p < .001$. As hypothesized, there were no significant differences in perceived organizational attractiveness in the collaborative culture and open-door culture conditions, $p = .61$. Next, I tested whether or not the three conditions differed in the extent to which they were perceived to have a collaborative culture. A one-way ANOVA revealed that there were significant differences in the extent to which participants perceived that the organization had collaborative culture, $F(2,214) = 63.05$, $p < .001$. Tukey's post-hoc testing revealed, as hypothesized, that the collaborative culture condition, ($M = 6.73$, $SD = 0.51$), was viewed as significantly more collaborative than the open door culture condition, ($M = 6.05$, $SD = 0.87$), $p < .001$, which was viewed as significantly more collaborative than the control condition, ($M = 5.20$, $SD = 0.92$), $p < .001$. Lastly, I tested whether or not the three conditions differed in the extent to which they were perceived to be committed to being open to feedback from employees. A one-way ANOVA revealed that there were significant differences in the extent to which participants perceived the organization to be open to feedback from employees, $F(2,214) = 53.67$, $p < .001$. As hypothesized, Tukey's post-hoc testing revealed that the open-door culture condition was perceived as significantly more open to feedback from employees ($M = 6.43$, $SD = 0.80$), than the control condition, ($M = 5.00$, $SD =$

0.89), $p < .001$. However, contrary to our hypothesis, participants did not differ in the extent to which they perceived the open-door culture condition and collaborative culture condition, (M = 6.20, SD = 0.91), to be open to feedback from employees, $p = .25$.

Generalized Confrontation Anxiety by Study Condition. A one-way ANOVA revealed that, as expected, there were no significant differences in generalized confrontation anxiety by the three study conditions, $F(2,214) = 0.28$, $p = .77$, suggesting that generalized confrontation anxiety was a stable individual difference across study conditions.

Indirect Effect of Study Condition on Behavioral Intentions to Confront Discriminatory Supervisor via Complainer Confirmation Anxiety. I hypothesized that there would be a significant indirect effect of study condition on participants' behavioral intentions to confront the discriminatory supervisor via their levels of complainer confirmation anxiety. To test this hypothesis, Hayes' (2018) PROCESS macro for bootstrapping mediation analysis was used. Generalized confrontation-related anxiety was entered as a covariate in the analysis. Study condition was the predictor, and it was coded using effect coding, with control condition = -1, collaborative culture condition = 0, and open-door culture condition = 1. The multi-categorical predictor option was selected to account for the three study conditions, with the first contrast comparing the collaborative culture condition to the control condition, and the second contrast comparing the open-door culture condition to the control condition. Complainer confirmation anxiety was entered as the mediator variable, and behavioral intentions to confront the discriminatory supervisor was entered as the outcome variable, using Model 4 with 10,000 bootstrap samples. As predicted, there was a significant indirect effect of open-door culture condition (compared to the control condition) on participants' behavioral intentions to confront the discriminatory supervisor via complainer confirmation anxiety, $b = .07$, $SE = .04$, 95% CI

[0.01, 0.16]. Namely, participants in the open-door culture condition (compared to the control condition) reported significantly lower levels of complainer confirmation anxiety, which was associated with greater behavioral intentions to confront the discriminatory supervisor. Consistent with the *benefits of collaboration hypothesis*, an indirect effect of collaborative culture condition (compared to control condition) on participants' behavioral intentions to confront the discriminatory supervisor via complainer confirmation anxiety was not observed, $b = -.002$, $SE = .03$, 95% CI [-0.07, 0.07]. These findings suggest that the open-door culture condition (relative to the control condition) increased women's willingness to confront a discriminatory supervisor by decreasing their levels of complainer confirmation anxiety, whereas the collaborative culture condition (relative to the control condition) did not affect women's levels of complainer confirmation anxiety—even though the collaborative condition was perceived as significantly more attractive as a workplace than the control condition (Figure 3).

Indirect Effect of Study Condition on Avoidance of Discussing Discrimination with Supervisor via Complainer Confirmation Anxiety. I hypothesized that there would be a significant indirect effect of study condition on participants' levels of avoidance of discussing the discrimination with their supervisor via their levels of complainer confirmation anxiety. To test this hypothesis, Hayes' (2018) PROCESS macro for bootstrapping mediation analysis was used. Generalized confrontation-related anxiety was entered as a covariate in the analysis. Study condition was the predictor, and it was coded using effect coding, with control condition = -1, collaborative culture condition = 0, and open-door culture condition = 1. The multi-categorical predictor option was selected to account for the three study conditions, with the first contrast comparing the collaborative culture condition to the control condition, and the second contrast comparing the open-door culture condition to the control condition. Complainer confirmation

anxiety was entered as the mediator variable, and avoidance of discussing the discrimination with their supervisor was entered as the outcome variable, using Model 4 with 10,000 bootstrap samples. As predicted, there was a significant indirect effect of open-door culture condition (compared to the control condition) on participants' levels of avoidance intentions via complainer confirmation anxiety, $b = -.11$, $SE = .06$, 95% CI [-0.24, -0.01]. Namely, participants in the open-door culture condition (compared to the control condition) reported significantly lower levels of complainer confirmation anxiety, which was associated with lower levels of avoidance intentions. Also consistent with the *benefits of collaboration hypothesis*, an indirect effect of the collaborative culture condition (compared to the control condition) on participants' levels of avoidance intentions via complainer confirmation anxiety was not observed, $b = .003$, $SE = .53$, 95% CI [-0.10, 0.11]. These findings suggest that the open-door culture condition (relative to the control condition) decreased women's intentions to avoid discussing the discrimination with their supervisor by decreasing their levels of complainer confirmation anxiety, whereas the collaborative culture condition (relative to the control condition) did not affect their subjective levels of complainer confirmation anxiety (Figure 4).

Discussion

The present study was designed to examine ways in which organizational culture may reduce (or potentially exacerbate) women's experiences of complainer confirmation anxiety in the face of gender discrimination. Specifically, the study explored differences in women's subjective experiences of complainer confirmation anxiety following a hypothetical gender discrimination scenario based on the organization's culture described in promotional materials. Three organizational cultures were compared: (a) an open-door culture emphasizing self-reflection and open discussion of challenging topics, (b) a collaborative culture emphasizing

intra-group cooperation and harmony, and (c) a control condition in which no information about the organizational culture was provided. As hypothesized, participants in the open-door culture condition reported significant lower levels of complainer confirmation anxiety compared to the control condition, which was associated with significantly greater behavioral intentions to confront, as well as lower behavioral intentions to avoid, a discriminatory supervisor in the workplace. These findings suggest that workplace environments high in discussability (Kaptein, 2008), where employees feel as though they can openly discuss ethnical issues and internal dilemmas, might not only improve whistle-blowing but also potentially increase women's willingness to confront gender discrimination by minimizing complainer confirmation anxiety. As such, these results indicate that if an organization communicates to its employees that self-reflection about difficult topics (Ashford, et al., 2003) is a core organizational value, women may feel more comfortable to come forward about experiences of gender discrimination because they are less worried about being seen by others as a complainer. In addition, this study provides further evidence that complainer confirmation anxiety and generalized confrontation-related anxiety are distinct from one another. I observed mean differences in complainer confirmation anxiety by study condition, whereas generalized confrontation-related anxiety was experienced at similar levels across study conditions, suggesting that generalized confrontation-related anxiety is a stable individual difference across organizational cultures (whereas complainer confirmation anxiety can be shifted by organizational culture cues).

Importantly, I did not find support for the *irony of harmony hypothesis*, but instead found support for the *benefits of collaboration hypothesis*. Regarding the *irony of harmony hypothesis* (i.e., emphasizing group harmony as a deterrent to addressing social inequality; Saguy, et al., 2009), I would have expected that women would feel higher levels of complainer confirmation

anxiety in the culture of collaboration condition compared to control condition, which would have resulted in lower intentions to confront (and greater intentions to avoid) the discriminatory supervisor. Instead, our results were in line with the *benefits of collaboration hypothesis*, such that women rated the culture of collaboration condition as an equally attractive organization compared to the open door culture condition (and more attractive than the control condition), but the culture of collaboration condition had no effect on women's levels of complainer stereotype or their intentions to confront/avoid the discriminatory supervisor. However, it is important to note that I did not observe a mean difference between the open-door culture and culture of collaboration conditions in participants' ratings of the organization's commitment to openness to feedback. This suggests that openness to feedback is unlikely to be the distinguishing feature of the open-door culture condition that uniquely elicits less complainer confirmation anxiety in women participants. While women may be drawn to communal work environments (e.g., Diekman et al., 2015), our results suggest that even though these organizations may be attractive places to work, they do not necessarily promote women feeling comfortable to confront gender discrimination in the workplace.

General Discussion

Gender discrimination is a pervasive social issue, with the potential to do great harm to women. Women report experiencing gender discrimination and sexism frequently in their daily lives (Klonoff & Landrine, 1995; Pew Research Center, 2016), and such mistreatment is associated with both economic losses and worse health outcomes over time (Pascoe & Smart Richman, 2009; Pew Research Center, 2016; Sturm, 2001; Schmitt, et al., 2014). While women face considerable disadvantage from experiencing discrimination itself, it unfortunately does not end there. Women who choose to challenge such experiences by confronting the source of

discrimination (e.g., a prejudiced supervisor in the workplace) often experience substantial interpersonal and professional costs, which deter them from confronting (Bergman, et al., 2002; Kaiser & Miller, 2001; Shelton & Stewart, 2004). As such, women choose to confront experiences of gender discrimination in the real world exceedingly rarely, even though they desire and plan to confront the majority of time in hypothetical situations (e.g., Woodzicka & LaFrance, 2001; Swim & Hyers, 1999).

The present paper seeks to identify a novel social psychological barrier that women who encounter gender discrimination in the workplace may experience: *complainer confirmation anxiety*. In this work, I define complainer confirmation anxiety as women's private concerns that confronting gender-based mistreatment inadvertently confirms the negative stereotype that women who claim discrimination are complainers. I, therefore, expected that women who demonstrate greater complainer confirmation anxiety would report being less inclined to confront a discriminatory supervisor in a hypothetical workplace scenario.

Other research shows that broadly, people who "speak up" against discrimination are dismissed and stereotyped by others as merely complainers (Feagin & Sikes, 1994; Kaiser & Miller, 2003; Kowalski, 1996; Mallett & Wagner, 2011). Women as a group, in particular, are also stereotyped in society as overly emotional and whiny (Devine, 1989; LaFrance & Banaji, 1992; Plant, Hyde, Keltner, & Devine, 2000). As such, the present work explores how women may censor their desires to speak up about gender discrimination due to fears of inadvertently confirming the negative stereotype that women claiming discrimination are complainers. Across three studies, I find evidence for our hypothesis that women are motivated to avoid confirming the negative stereotype that women who confront discrimination are complainers. In addition, I show that this complainer confirmation anxiety predicts women's intentions to confront (and

avoid) perpetrators of gender discrimination in the workplace, and that women's subjective levels of complainer confirmation anxiety can be influenced by an organization's culture.

In the pilot study and Study 1, I refined our complainer stereotype instrument, which showed strong internal reliability, predictive validity, and divergent validity. As expected, generalized confrontation-related anxiety was strongly correlated with, but distinct from, complainer confirmation anxiety (in Study 1). Consistent with our hypotheses, I found that after reading about a hypothetical gender discrimination scenario, women with higher levels of complainer confirmation anxiety showed significantly lower behavioral intentions to confront an ostensibly real discriminatory supervisor about wage discrimination. In Study 1, I used a fully-developed measure of generalized confrontation anxiety as a control variable, and associations between complainer confirmation anxiety and intentions to confront the supervisor held when accounting for this generalized confrontation anxiety. In addition, I found that complainer confirmation anxiety similarly predicted participants' dichotomous decisions (yes vs. no) about whether or not to confront the discriminatory supervisor. These results suggest that women's concerns about confirming this complainer stereotype are indeed important in shaping their willingness to confront gender discrimination in the workplace. Thus, this work indicates that complainer confirmation anxiety is a meaningful social psychological barrier for women in the context of confronting workplace gender discrimination.

While women's willingness to confront their discriminatory supervisor was predicted by their levels of complainer confirmation anxiety, this was not the case for their behavioral intentions to report the discrimination incident to the organization's Human Resources department. Interestingly, this pattern was observed even though participants' behavioral intentions and decisions to confront the supervisor were strongly correlated with those of the

decision to report to HR. This lack of association between complainer confirmation anxiety and behavioral intentions to report to Human Resources could be due to several reasons. Firstly, the complainer confirmation anxiety scale itself was worded such that items assessed concerns related to the supervisor (not HR). If participants were asked to complete the complainer confirmation anxiety items again, but instead phrased to measure their concerns about going to Human Resources, this may have resulted in an association between complainer confirmation anxiety and behavioral intentions to report to Human Resources. Future work should empirically test the extent to which women's concerns about confirming the stereotype that women are complainers extends to reporting discrimination to appropriate agencies like Human Resources in addition to directly confronting the sources of discrimination.

Second, participants might have assumed that the employee with whom they would speak in the Human Resources department would be a woman. Recent estimates in the United States suggest that approximately three quarters of Human Resources employees are, in fact, women (Payscale, 2019). It is possible that women might have felt more comfortable, and less concerned about being seen as a complainer, when imagining describing an incident of gender discrimination to another woman. Future work should experimentally test how the gender of the person to whom participants report might influence the extent to which complainer confirmation anxiety shapes participants' willingness to report gender discrimination. Furthermore, it may be that women simply felt more comfortable reporting to Human Resources than they did directly speaking with the source of discrimination, resulting in a ceiling effect. In our sample, 70% of participants reported they would report the discrimination incident to Human Resources, whereas only 56% reported they would confront the discriminatory supervisor. Lastly, given that the sample was drawn entirely from mTurk, and the structure and function of Human Resources was

not defined in the study materials, participants may not have had sufficient information or personal experience about the role of Human Resources departments in workplace gender discrimination situations. Overall, it is clear that regardless of potential concerns about confirming the negative stereotype of women as complainers, participants appeared more inclined in general to report to Human Resources than to confront the source of gender discrimination (i.e., a prejudiced supervisor) in the workplace.

In Study 2, I examined the role of organizational culture in shaping the extent to which women report experiencing complainer confirmation anxiety, and, in turn, their intentions to both confront and avoid a discriminatory supervisor. The norms promoted with an organization communicate to employees the extent to which particular behaviors are acceptable and valued (e.g., Cooke & Rousseau, 1988; Kondra & Hurst, 2009; Mowday & Sutton, 1993). As such, I sought to determine if certain organizational cultures might exacerbate or attenuate women's experiences of complainer confirmation anxiety. In line with research in the domain of whistleblowing and organizational discussability (Kaptein, 2008), I predicted that women who read about a company with an open-door culture emphasizing critical organizational self-reflection (Ashford, et al., 2003) would report significantly lower levels of complainer confirmation anxiety (compared to a control condition), which would in turn be associated with greater behavioral intentions to confront (and less intentions to avoid) a perpetrator of gender discrimination in the organization.

In addition, I sought to test competing hypotheses about how an organization with a collaborative culture would be perceived and experienced by women in the context of confronting gender discrimination. Research examining interpersonal interactions suggests that when harmony between group members is emphasized, this leads members of historically

marginalized groups to pay less attention to environmental cues of group-based inequality (e.g., Saguy, et al., 2009). As such, our *irony of harmony hypothesis* posited that compared to a control condition, participants who read about an organization with a highly collaborative culture emphasizing cooperation and group harmony would report significantly higher levels of complainer confirmation anxiety, and, in turn, lower behavioral intentions to confront the supervisor. Alternately, consistent with other research showing that women find communal workplaces particularly attractive (Diekman, et al., 2015), our *benefits of collaboration hypothesis* supposed that women would view the collaboration condition as significantly more attractive compared to a control condition, but this would have no effect on their levels of complainer confirmation anxiety or intentions to confront gender discrimination in the workplace.

Consistent with our main hypothesis in Study 2, women in the open-door culture condition (compared to control) showed significantly lower levels of complainer confirmation anxiety, which was associated with greater behavioral intentions to confront, and lower behavioral intentions to avoid, the discriminatory supervisor. This pattern of results held also when controlling for participants' levels of generalized confrontation-related anxiety. In addition, I found support for our *benefits of collaboration hypothesis*, such that participants in the control and culture of collaboration conditions did not differ in their levels of complainer confirmation anxiety or intentions to confront or avoid the discriminatory supervisor (but rated the collaborative condition as especially attractive). Taken together, these findings suggest that if organizations are interested in facilitating a culture in which women feel comfortable coming forward and confronting gender discrimination, creating an organizational culture high in

discussability and self-reflection may increase women's willingness to confront by decreasing their levels of complainer confirmation anxiety.

However, while the culture of collaboration condition was rated by participants as significantly more collaborative than the open-door condition, the two conditions did not differ in participants' ratings of the organization's commitment to feedback. As such, I am unable to suggest that the underlying reason that participants in the open-door culture condition reported lower levels of complainer confirmation anxiety was because the open-door culture condition was perceived as significantly more open to feedback compared to the other study conditions. I suspect this may be because I did not specify an openness to negative feedback in our measure of perceived organizational commitment to feedback. Discussability is a feature of organizational culture focused on open conversation about difficult, challenging, and potentially unethical behavior (Corporate Ethical Values Model; Kaptein, 2008). Self-reflection (Ashford, et al., 2003) within organizations requires emphasis on examining mistakes and wrongdoings, in particular. As such, our broad measure of "commitment to feedback" may not have been the ideal construct to distinguish our conditions from one another; the unique feature of an open-door culture that we would expect to facilitate women's confronting behavioral intentions is specific to openness around discussing *negative* feedback. Participants may have perceived the collaboration condition to indicate that positive feedback is welcomed (which is a component of collaboration), thus resulting in similar ratings of organizational commitment to feedback (without a negative valence) in the culture of collaboration and open-door culture conditions. Future work should seek to empirically identify the dimension(s) on which the open-door culture and collaborative culture conditions differ, such as perceived organizational openness to *negative* feedback, in particular.

Limitations and Future Research

Importantly, the present research has several limitations. While these first three studies provide initial evidence that women's experiences of complainer confirmation anxiety are related to their intentions to confront and avoid a discriminatory supervisor in the workplace, it is imperative that future research examine women's *in vivo* confronting behavior as an outcome. Prior research has shown that women typically overestimate their confronting behavior in hypothetical discrimination scenarios compared to their actual observed behavior (e.g., Woodzicka & LaFrance, 2001). Ideally, future work should recruit working women to participate in a study in an experimental laboratory setting and measure the extent to which women's levels of complainer confirmation anxiety shape their observable confronting behavior when faced with sexism while interacting with a confederate. Such a study could provide evidence that complainer confirmation anxiety is a predictor of actual confronting behavior, in addition to women's behavioral intentions to confront.

Furthermore, because exceedingly few women engage in confronting behavior when faced with gender discrimination, it is important to consider that confronting may be "too high of a bar" for which to measure women's behavior that is designed to challenge or address discrimination. Confronting is beneficial insofar as it minimizes health consequences of discrimination (Chaney, et al., 2015; Sanchez et al., 2016) and reduces perpetrators' future expressions of prejudice (e.g., Czopp et al., 2006). However, there may be other relevant outcomes for researchers to focus on. Examples might include women's willingness to report discrimination to Human Resources within an organization or other another appropriate agency or authority, or even women's support-seeking behavior among co-workers and friends. Relatedly, it may be easier for bystanders of a discrimination situation to confront the perpetrator

than for the target, as other work has shown that bystanders are often perceived by others more favorably than targets when confronting prejudice (Ashburn-Nardo, Morris, & Goodwin, 2008). As such, future research should examine the extent to which women's confronting decisions may be shaped by complainer confirmation anxiety when they are witnesses to sexism in which other women are targeted.

Lastly, it is important that future work examine the roles of participants' own ethnicity or race in shaping their experiences of complainer confirmation anxiety. Importantly, women of color are particularly susceptible to experiencing sexism and gender discrimination in their daily lives (Klonoff & Landrine, 1995; Pew Research Center, 2013; 2016). Because prejudice and stereotypes are intersectional in nature (e.g., Crenshaw 1990; Ghavami & Peplau, 2012), it may be that certain ethnic or racial groups of women are also especially vulnerable to experiencing complainer confirmation anxiety. For example, African Americans are similarly stereotyped by others as complainers and "troublemakers" when they claim racial discrimination (Kaiser & Miller, 2003), and are accused by others of playing the "race card" (*Burnell v. Gates Rubber*, 2011). As such, black women may be significantly more likely to be stereotyped by others as a complainer than white women, which may result in increased complainer confirmation anxiety among black women in particular. Future work should seek to replicate our study findings in more ethnically diverse samples, as well as test for potential racial or ethnic differences in the extent to which women report experiencing complainer confirmation anxiety and its effects on their confronting behavior.

Conclusions

Confronting the discriminatory behavior of others in the workplace can potentially be beneficial to women for a variety of reasons. When subjected to gender discrimination, engaging

in an active coping strategy like confronting the perpetrator is protective to women's health (Chaney et al., 2015), provides the opportunity for the discrimination to be rectified (Crosby, Iyer, Clayton, & Downing, 2003), and decreases the likelihood that the perpetrator will engage in discriminatory behavior in the future (Czopp, et al., 2006). However, confronting gender discrimination in the workplace also carries some potential risks for women, as well. One such risk is that women who confront injustice directly are generally perceived negatively by others and may even be dismissed as merely complainers (Braun & Gollwitzer, 2016; Cadieux & Chasteen, 2015; Kaiser & Miller, 2004; Kowalski, 1996). When experiencing gender discrimination in the workplace, women are typically provided with two possible behavioral responses: (a) confront the source of discrimination, but inadvertently confirm the negative stereotype that women who claim discrimination are complainers, or (b) avoid confirming this negative complainer stereotype but leave prejudice unchallenged with little opportunity for recourse.

The present paper is the first to provide initial evidence that when faced with gender discrimination, women actively consider and experience anxiety about the extent to which confronting discrimination may inadvertently confirm the stereotype that they are complainers. In addition, I found that these specific complainer-related anxieties (in addition to generalized confrontation-related anxiety) reduced the likelihood that women will indeed intend to confront a discriminatory coworker. Furthermore, I found that organizational cultures can shape the extent to which women report experiencing complainer confirmation anxiety. Specifically, I found that that an open-door culture within a company emphasizing organizational self-reflection reduced women's levels of complainer confirmation anxiety, thereby increasing women's intentions to confront (and decreasing their intentions to avoid) the source of discrimination. A collaborative

culture, however, was rated as an attractive workplace but did not affect women's levels of complainer confirmation anxiety, nor their behavioral intentions to confront or avoid a discriminatory supervisor.

As such, this work suggests that organizations potentially have the power to shape how comfortable and safe women feel to come forward about experiencing gender discrimination in the workplace. Future research would benefit from examining evidence-based strategies in which organizations can foster cultures that facilitate women coming forward and speaking up about experiences of gender-based mistreatment so that such structural issues within an organization can be addressed. Taken together, this work identified a previously unexplored psychological barrier to confronting gender discrimination and highlighted that organizational cultures, which are malleable, may be key in facilitating work environments in which women are empowered to confront gender discrimination in spite of the potential costs.

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Table 1.

Descriptive Statistics and Inter-Item Correlations of All Variables in Pilot Study.

	1.	2.	3.	4.	5.	6.	7.	8.	9.	*M*	*SD*
1. Age	--									35.30	9.76
2. STEM (0 = No)	-.10	--								0.39	0.49
3. Social Costs	-.08	-.13	--							4.20	1.77
4. Belief Confrontation Effective	<.01	-.09	.44***	--						5.35	1.55
5. Confrontation Anxiety	-.17	-.15	.56***	.66***	--					5.46	1.65
6. Construal of Scenario as Non-Discrim.	.09	-.08	.04	.07	.11	--				3.28	1.51
7. Optimism	.18†	.10	-.11	-.10	-.27**	.10	--			4.98	1.41
8. Complainer Stereotype Threat	-.05	-.12	.48***	.49***	.55***	-.13	-.24**	--		4.63	1.60
9. BI of Confronting	.17†	-.06	-.13	-.03	-.16†	-.09	.25**	-.21*	--	4.68	1.55

†$p \leq .10$, *$p \leq .05$, ** $p \leq .01$, *** $p \leq .001$

Note. BI = Behavioral Intentions

Table 2.

Latent Factor Loadings of Confirmatory Factor Analysis of Complainer Confirmation Anxiety Measure in Pilot Study.

	λ	*SE*	*t*	*p*
Latent Factor → Item 1				
"I worry that if I confront my supervisor, I would be seen as a complainer because of my gender."	.92	.02	37.59	<.001
Latent Factor → Item 2				
"I worry that if I confront my supervisor, his evaluation of me would be influenced by my gender."	.69	.05	12.71	<.001
Latent Factor → Item 3				
"I worry that if I confront my supervisor, I would be seen as trying to "play the gender card."	.89	.03	32.05	<.001
Latent Factor → Item 4				
"I worry that, because I know the stereotype about women being oversensitive, my anxiety about confirming that stereotype would negatively influence the conversation with the supervisor."	.96	.03	28.08	<.001
Correlation of Error Variances Items 2, 4	.14	.05	3.02	<.01

Table 3.

Effects of Complainer Confirmation Anxiety on Likelihood of Confronting in Pilot Study.

	b	*SE*	*t*	*p*	*95% CI*
Constant***	5.74	.44	13.10	<.001	[4.87, 6.61]
Complainer Confirmation Anxiety**	-0.22	.09	-2.49	.01	[-0.40, -0.05]

$^{\dagger}p \le .10$, $^{*}p \le .05$, ** $p \le .01$, *** $p \le .001$.

Table 4.

Regressing Behavioral Intentions to Confront on Complainer Confirmation Anxiety and Control Variables in Pilot Study.

	b	*SE*	*t*	*p*	*95% CI*
Constant***	4.68	1.06	4.42	<.001	[2.58, 6.78]
Age	0.01	0.02	0.84	.40	[-0.02, 0.04]
STEM Field (0 = No)	-0.41	0.30	-1.36	.18	[-1.01, 0.19]
Perceived Social Costs	0.03	0.10	0.30	.76	[-0.17, 0.23]
Belief Confrontation Effective	0.15	0.14	1.10	.27	[-0.12, 0.42]
General Confrontation-Related Anxiety	-0.13	0.14	-0.92	.36	[-0.41, 0.15]
Construal of Scenario as Non-Discriminatory	-0.13	0.10	-1.31	.19	[-0.33, 0.07]
Trait Optimism†	0.21	0.11	1.86	.07	[-0.01, 0.43]
Complainer Confirmation Anxiety†	**-0.23**	**0.12**	**-1.94**	**.06**	**[-0.46, 0.01]**

†$p \leq .10$, *$p \leq .05$, ** $p \leq .01$, *** $p \leq .001$.

Table 5.

Descriptive Statistics and Inter-Item Correlations of All Variables in Study 1.

	1.	2.	3.	4.	5.	6.	7.	8.	*M*	*SD*
1. Self-Monitoring	--								4.21	1.06
2. Agreeableness	.05	--							4.07	0.65
3. Confrontation Anxiety	-.33***	-.12	--						2.82	1.10
4. Complainer Stereotype Threat	-.09	-.02	.28***	--					4.46	1.75
5. BI to Confront Supervisor	.19*	-.05	-.38***	-.30***	--				4.67	1.73
6. BI to Report to HR	.01	-.02	-.29***	-.18*	.64***	--			5.02	1.78
7. Decision Confront Supervisor[1]	.11	-.10	-.25***	-.23**	.70***	.39***	--		0.56	0.50
8. Decision Report to HR[1]	-.01	.05	-.15†	.01	.44***	.73***	.35***	--	0.70	0.46

†$p \leq .10$, *$p \leq .05$, ** $p \leq .01$, *** $p \leq .001$

Note. BI = Behavioral Intentions [1]Dichotomous variables.

Table 6.

Principal-Axis Factor Loadings for 9-Item Complainer Confirmation Anxiety Scale in Study 1.

Because of my gender, I worry that if I confront my supervisor...	**9-item Factor Loading**	**8-item Factor Loading**	**7-item Factor Loading**
8. ...it would confirm the stereotype that women are complainers.	.90	.90	.91
3. ...I would be seen as oversensitive.	.90	.90	.90
2. ...I would be seen as whiny.	.87	.86	.86
9. ...it would confirm the stereotype that women are oversensitive.	.87	.89	.89
1. ...I would be seen as a complainer.	.87	.85	.86
6. ...I would be seen as "making something out of nothing."	.82	.84	.82
7. ...I would be seen as complaining for the sake of getting attention.	.82	.82	
5. ...I would be seen as trying to "play the gender card."	.81	.80	.81
4. ...I would be seen as quarrelsome.	.80		

Table 7.

Latent Factor Loadings of Confirmatory Factor Analysis of Complainer Confirmation Anxiety Measure in Study 1.

	λ	*SE*	*t*	*p*
Latent Factor → Item 1 "...I would be seen as a complainer."	.88	0.02	43.23	<.001
Latent Factor → Item 2 "...I would be seen as whiny."	.90	0.02	48.64	<.001
Latent Factor → Item 3 "...I would be seen as oversensitive.	.89	0.02	47.41	<.001
Latent Factor → Item 5 "...I would be seen as trying to 'play the gender card.'"	.83	0.03	29.48	<.001
Latent Factor → Item 6 "...I would be seen as 'making something out of nothing.'"	.80	0.03	26.72	<.001
Latent Factor → Item 8 "...it would confirm the stereotype that women are complainers."	.88	0.02	42.59	<.001
Latent Factor → Item 9 "...it would confirm the stereotype that women are oversensitive."	.90	0.02	40.85	<.001
Correlation of Error Variances Items 8, 9	.09	0.03	3.10	.002
Correlation of Error Variances Items 6, 9	.05	0.03	1.78	.07
Correlation of Error Variances Items 2, 9	-.12	0.02	-5.01	<.001
Correlation of Error Variances Items 2, 5	-.07	.02	-2.84	.004
Correlation of Error Variances Items 1, 9	-.07	.02	-3.44	<.001

Table 8.

Regressing Likelihood of Confronting Supervisor and Reporting to Human Resources on Complainer Confirmation Anxiety and Confrontation Anxiety in Study 1.

Confront Supervisor	*b*	*SE*	*t*	*p*	95% CI
Intercept	7.00	0.42	16.79	<.001	[6.18, 7.83]
Confrontation Anxiety	-0.50	0.12	-4.24	<.001	[-0.73, -0.27]
Complainer Confirmation Anxiety	**-0.21**	**0.07**	**-2.80**	**<.006**	**[-0.35, -0.06]**
Report to HR	*b*	*SE*	*t*	*p*	95% CI
Intercept	6.68	0.45	14.78	<.001	[5.79, 7.57]
Confrontation Anxiety	-0.42	0.13	-3.30	.001	[-0.67, -0.17]
Complainer Confirmation Anxiety	**-0.11**	**0.08**	**-1.31**	**.19**	**[-0.26, 0.05]**

Table 9.

Regressing Decision Whether or Not to Confront Supervisor and Report to Human Resources on Complainer Confirmation Anxiety and Confrontation Anxiety in Study 1.

Confront Supervisor	*B*	*SE*	*Wald*	*p*	*OR*	95% CI
Intercept	2.41	0.62	15.00	<.001	11.15	--
Confrontation Anxiety	-0.40	0.16	6.31	.01	0.67	[0.49, 0.92]
Complainer Confirmation Anxiety	**-0.23**	**0.10**	**4.85**	**.03**	**0.80**	**[0.65, 0.98]**
Report to HR	*B*	*SE*	*Wald*	*p*	*OR*	95% CI
Intercept	1.48	0.59	6.23	.01	4.39	--
Confrontation Anxiety	-0.33	0.17	3.88	.05	0.72	[0.52, 1.00]
Complainer Confirmation Anxiety	**0.07**	**0.11**	**0.48**	**.49**	**1.08**	**[0.88, 1.32]**

Table 10.

Descriptive Statistics and Inter-Item Correlations of All Variables in Study 2.

	1.	2.	3.	4.	5.	6.	7.	*M*	*SD*
1. Org. Attractiveness	--							4.22	0.75
2. Org. Openness to Feedback Culture	.63***	--						5.94	1.05
3. Org. Collaborative Culture	.63***	.69***	--					6.03	0.99
4. Complainer Stereotype Threat	.01	-.08	.01	--				4.28	1.74
5. Confrontation Anxiety	.01	-.14*	-.06	.37***	--			2.87	1.03
6. Avoidance	<.001	-.05	.02	.46***	.42***	--		2.91	1.63
7. BI of Confronting	-.01	.03	-.004	-.35***	-.43***	-.64***	--	5.05	1.67

p* ≤ .05, ** *p* ≤.01, * *p* ≤.001
Note. BI = Behavioral Intentions

Table 11.

Means and Standard Deviations for Dependent Variables by Study Condition in Study 2.

Dependent Variables	Study Condition		
	Control Condition	Collaborative Culture Condition	Open Door Culture Condition
Org. Attractiveness	3.56[a,b] (0.76)	4.54[a] (0.52)	4.44[b] (0.57)
Org. Collaborative Culture	5.20[a] (0.92)	6.73[a] (0.51)	6.05[a] (0.87)
Org. Open to Feedback Culture	5.00[a,b] (0.89)	6.20[a] (0.91)	6.43[b] (0.80)
Generalized Confrontation Anxiety	2.95 (1.12)	2.84 (1.01)	2.84 (0.98)
Complainer Confirmation Anxiety	4.68[c] (1.77)	4.30 (1.55)	3.96[c] (1.83)
BI of Confronting Supervisor	5.08 (1.83)	5.06 (1.64)	5.02 (1.58)
Avoidance of Supervisor	2.89 (1.60)	2.92 (1.61)	2.92 (1.69)

Note. By row, [a,b] = significant different at $p < .001$, [c] = significantly different at $p < .05$.

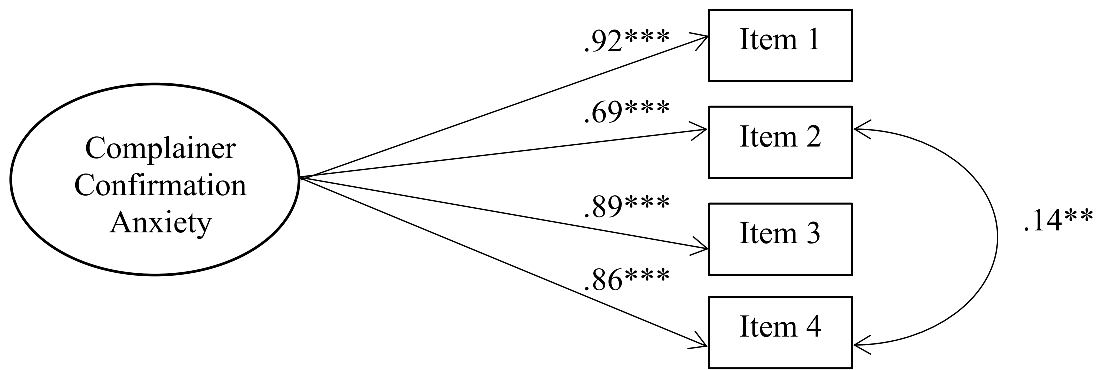

Figure 1. *Factor structure of complainer confirmation anxiety measure in Pilot Study.* ** $p \leq .01$, *** $p \leq .001$.

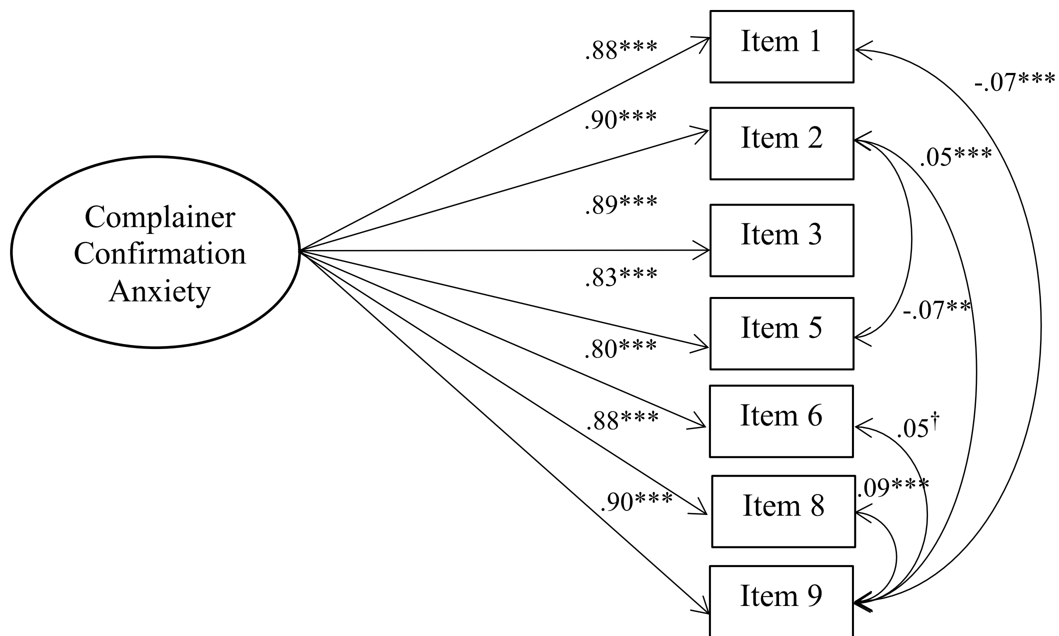

Figure 2. *Factor structure of seven-item complainer confirmation anxiety measure in Study 1.* †*p* ≤ *.10,* **p* ≤ .05, ** *p* ≤.01, *** *p* ≤.001

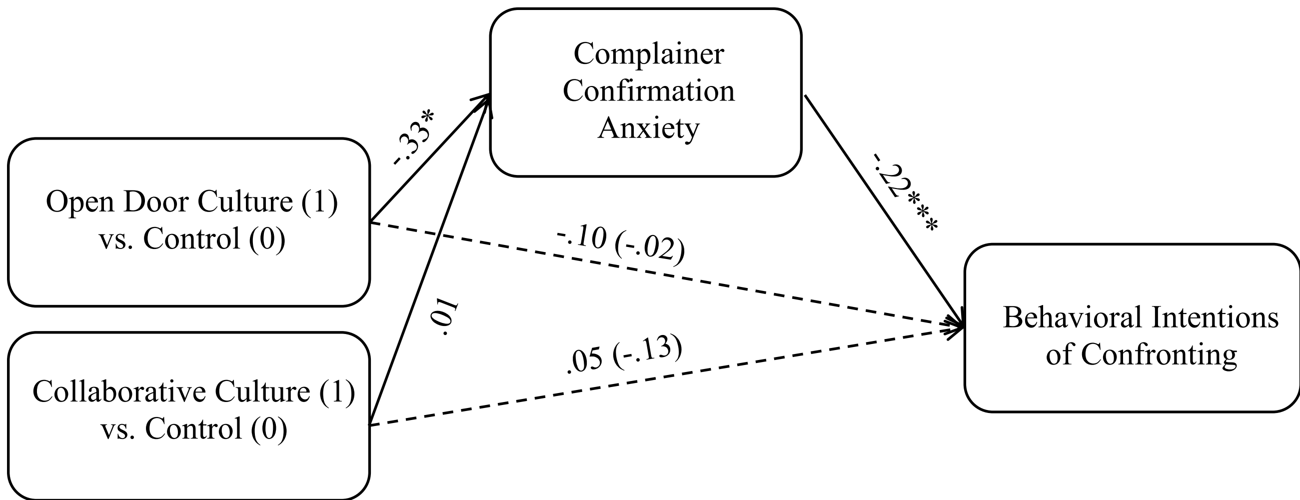

Figure 3. Regression coefficients for the relationship between study condition and behavioral intentions to confront discriminatory supervisor as mediated by complainer confirmation anxiety in Study 2. Generalized confrontation anxiety is a covariate.

* $p \leq .05$. ** $p \leq .01$. *** $p \leq .001$.

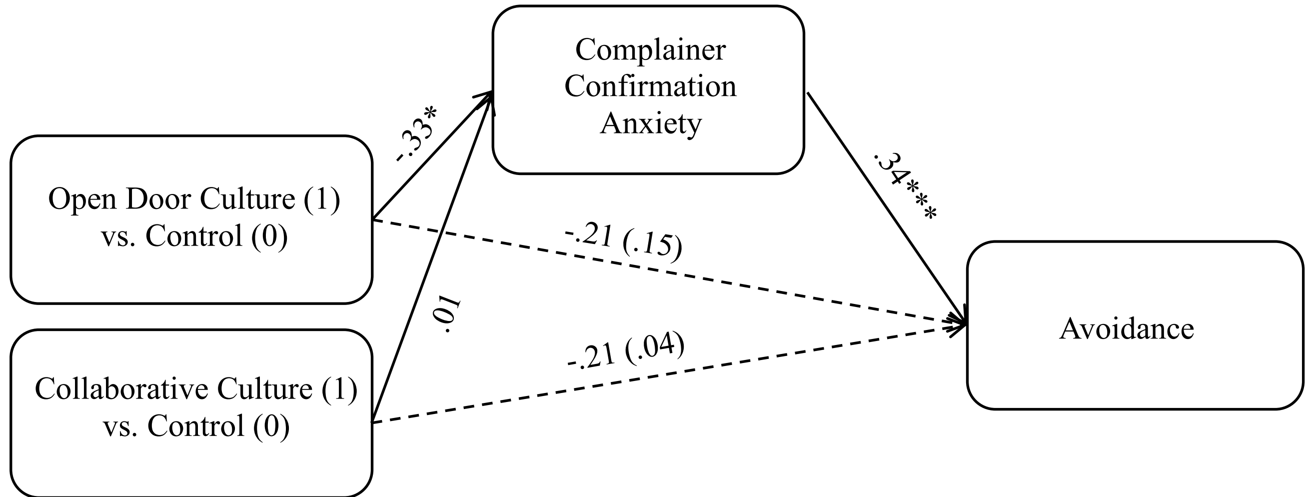

Figure 4. Regression coefficients for the relationship between study condition and avoidance of discussing the discrimination with their supervisor as mediated by complainer confirmation anxiety in Study 2. Generalized confrontation anxiety is a covariate.

* $p \leq .05$. ** $p \leq .01$. *** $p \leq .001$.

Appendix A

Scenario

<u>Please read the scenario below carefully, and answer the following questions about it.</u>

Please imagine a successful technology company called NextTech. You and one other person were hired in the same month for the same type of position. This coworker and you have similar skills and educational backgrounds. At some point during your first year at the company, you find out that you are being paid $700 less a month than your coworker. Since you and he both do the same job, you find this difference in salary unfair.

Now please think about whether or not you would bring this salary difference up to your supervisor. Some background information: Your supervisor and your coworker are both men, and you all work in the same unit. There are no justifiable differences between you and the coworker that would explain the difference in salary.

As you think about whether or not you would bring this up to your supervisor, please read the following statements.

Complainer Confirmation Anxiety Scale (adapted from Najdowski et al., 2015)

Please mark the extent to which you agree with the following statements.

	Strongly Disagree 1	Somewhat Disagree 2	Slightly Disagree 3	Neither Agree Nor Disagree 4	Slightly Agree 5	Somewhat Agree 6	Strongly Agree 7
1. I would worry that if I confront my supervisor, I would be seen as a complainer because of my gender. 2. I would worry that if I confront my supervisor, his evaluation of me would be influenced by my gender. 3. I would worry that if I confront my supervisor, I would be seen as trying to “play the gender card.” 4. I would worry that, because I know the stereotype about women being oversensitive, my anxiety about confirming that stereotype would negatively influence the conversation with my supervisor.							

Appendix B

DIRECTIONS: Please read the scenario below carefully, and answer the following questions about it.

Please imagine a successful marketing company called NextBuy. You and one other person were hired in the same month for the same type of position. This coworker and you have similar skills and educational backgrounds. At some point during your first year at the company, you find out that you are being paid $400 less a month than your coworker. Since he and you both do the same job, you find this difference in salary surprising.

Now please think about whether or not you would bring this salary difference up to your supervisor, i.e., "confront" your supervisor. Some background information: Your supervisor and your coworker are both men, and you all work in the same unit. There appears to be no justifiable reason for the salary difference between your coworker and you.

As you think about whether or not you would bring this up to your supervisor, please indicate the extent to which you agree with the following statements on the subsequent pages.

Complainer Confirmation Anxiety Scale

Because of my gender, I worry that if I confront my supervisor…

	Strongly Disagree 1	Somewhat Disagree 2	Slightly Disagree 3	Neither Agree Nor Disagree 4	Slightly Agree 5	Somewhat Agree 6	Strongly Agree 7
1. …I would be seen as a complainer.							
2. …I would be seen as whiny.							
3. …I would be seen as oversensitive.							
4. …I would be seen as quarrelsome.							
5. …I would be seen as trying to “play the gender card.”							
6. …I would be seen as “making something out of nothing.”							
7. …I would be seen as complaining for the sake of getting attention.							
8.…it would confirm the stereotype that women are complainers.							
9. …it would confirm the stereotype that women are oversensitive.							

Confrontation-Related Anxiety Scale (adapted from Kaiser & Miller, 2004)

Please mark the extent to which you agree with the following statements about how comfortable you feel when confronting other people, in general.

	Strongly Disagree 1	Disagree A Little 2	Neither Agree Nor Disagree 3	Agree a Little 4	Strongly Agree 5
1. I am quite skilled at confronting people.*					
2. I come across competently when confronting people.*					
3. I am capable of effectively informing people that their behavior is inappropriate.*					
4. I worry that I won't be able to effectively communicate dissatisfaction to people.					
5. I feel very confident when I interact with people who have wronged me.*					
6. I experience anxiety when I confront people.					

Agreeableness Sub-Scale (Big-Five Personality Inventory; Goldberg, 1993)

Instructions: Here are a number of characteristics that may or may not apply to you. Please indicate the extent to which you agree or disagree with each statement.

I see myself as someone who…

	Strongly Disagree 1	Disagree A Little 2	Neither Agree Nor Disagree 3	Agree a Little 4	Strongly Agree 5
1. …tends to find fault with others.*					
2. …is helpful and unselfish with others.					
3. …starts quarrels with others.*					
4. …has a forgiving nature.					
5. …is generally trusting.					
6. …can be cold and aloof.*					
7. …is considerate and kind to almost everyone.					
8. …is sometimes rude to others.*					
9. …likes to cooperate with others.					

Self-Monitoring Scale (Ability to Modify Self-Presentation Sub-Scale, Lennox & Wolfe, 1984)

Instructions: Please indicate the extent to which you believe these statements are false or true of you as a person.

	Certainly, Always False 0	1	2	3	4	Certainly, Always True 5
1. In social situations, I have the ability to alter my behavior if I feel that something else is called for.						
2. I have the ability to control the way I come across to people, depending on the impression I wish to give them.						
3. When I feel that the image I am portraying isn't working, I can readily change it to something that does.						
4. I have trouble changing my behavior to suit different people and different situations.*						
5. I have found that I can adjust my behavior to meet the requirements of any situation I find myself in.						
6. Even when it might be to my advantage, I have difficulty putting up a good front.*						
7. Once I know what the situation calls for, it's easy for me to regulate my actions accordingly.						

Appendix C

Control Condition

Please read the information below carefully, as we will be asking you questions about the company.

NextBuy is a successful marketing company. This agency creates and implements marketing strategies to increase the sales and profits of other companies.

Open Door Condition

NextBuy is a successful marketing company. This agency creates and implements marketing strategies to increase the sales and profits of other companies.

Below is a review from a current employee at NextBuy Marketing, from the popular employer review and recruiting website, www.glassdoor.com.

Please read the information below carefully, as we will be asking you questions about the company.

glassdoor.com

Overview	914 Reviews	302 Jobs	1.3k Salaries	477 Interviews	390 Benefits	90 Photos

See More Pros And Cons

Employee Review

See All Reviews (914)

Featured Review

Helpful (9)

5 Weeks Ago

"Great Place to Work"

Current Employee - Anonymous

Recommends

Approves of CEO

Current Employee: I have been working at NextBuy full-time for more than three years.

Pros

NextBuy truly has an "open-door culture." I have always felt that employees were actively encouraged to raise their concerns and speak out if something was wrong—and we could do it without fear of any negative repercussions. Supervisors are open to getting feedback from lower-level employees. I feel like I can speak my mind at the office, and supervisors make us feel respected when we share our opinions about how things can be improved or done differently. When I brought issues up with senior management, they took me seriously and worked towards preventing future related issues. It's clear that the company genuinely values employees discussing their concerns openly, and it is receptive to learning from us.

Cons

I can't think of any glaring cons with working here, nothing that says WARNING don't work here or makes me want to ever leave.

Advice to Management

Make sure that you keep listening to your employees, and I cannot wait to see what the future has in store for NextBuy!

Collaboration Condition

NextBuy is a successful marketing company. This agency creates and implements marketing strategies to increase the sales and profits of other companies.

Below is a review from a current employee at NextBuy Marketing, from the popular employer review and recruiting website, www.glassdoor.com.

Please read the information below carefully, as we will be asking you questions about the company.

glassdoor.com

Overview	914 Reviews	302 Jobs	1.3k Salaries	477 Interviews	390 Benefits	90 Photos

See More Pros And Cons

Employee Review

See All Reviews (914)

Featured Review

Helpful (9)

5 Weeks Ago

"Great Place to Work"

Current Employee - Anonymous

Recommends   Approves of CEO

Current Employee: I have been working at NextBuy full-time for more than three years.

Pros

Nextbuy Solutions truly has a collaborative culture. I have always felt that employees were actively encouraged to work together to solve problems and ask for help—and we could do it without fear of any negative repercussions. When I struggled to come up with a solution for a particularly difficult client, senior management encouraged me to reach out to other team members for ideas. Everyone gets along well with each other, and overall things are pretty harmonious at the office. It's clear that the company genuinely values teamwork and promotes cooperation.

Cons

I can't think of any glaring cons with working here, nothing that says WARNING don't work here or makes me want to ever leave.

Advice to Management

Make sure that you keep encouraging your employees to work collaboratively, and I cannot wait to see what the future has in store for NextBuy!

Evaluations of Organizational Culture
This organization…

	Strongly Disagree 1	Somewhat Disagree 2	Slightly Disagree 3	Neither Agree Nor Disagree 4	Slightly Agree 5	Somewhat Agree 6	Strongly Agree 7
Endorsement of an Open Door Culture							
1. ...is committed to receiving feedback from its employees. 2. ...cares about listening to its employees' concerns. 3. ...genuinely values learning from employee experiences. 4. ...is receptive to suggestions from employees about ways to improve things at the organization.							
Endorsement of a Collaborative Culture							
5. ...is committed to having employees collaborate on projects. 6. ...cares about employees working together to solve problems. 7. ...genuinely values teamwork among employees. 8. ...is receptive to employees helping each other on projects.							

Organizational Attractiveness (Highhouse, Lievens, & Sinar, 2003)
Now, after learning more about this company, please mark the extent to which you agree or disagree with each statement.

	Strongly Disagree 1	Disagree a Little 2	Neither Agree Nor Disagree 3	Agree a Little 4	Strongly Agree 5
1. For me, this company would be a good place to work. 2. I would not be interested in this company, except as a last resort. 3. This company is attractive to me as a place for employment. 4. I am interested in learning more about this company. 5. A job at this company is very appealing to me.					

Discrimination Scenario

DIRECTIONS: Now, please imagine that you've been working at NextBuy for the last six months. Read the following workplace scenario

You and one other person were hired in the same month (six months ago) for the same type of position. This coworker and you have similar skills and educational backgrounds. Recently, you find out that you are being paid about $400 less a month (which is about $5,000 less a year) than your coworker. Since he and you both do the same job, you find this difference in salary surprising.

Now please think about whether or not you would bring this salary difference up to your supervisor, i.e., "confront" your supervisor. Some background information: Your supervisor and your coworker are both men, and you all work in the same unit. There appears to be no justifiable reason for the salary difference between your coworker and you. Your supervisor is the person who decided the salaries for your coworker and you.

As you think about whether or not you would bring this up to your supervisor, please indicate the extent to which you agree with the following statements on the subsequent pages.

Avoidance of Discriminatory Supervisor (adapted from Rattan & Dweck, 2010)
Directions: Please mark how much you agree or disagree with each of the following statements.

	Strongly Disagree 1	Somewhat Disagree 2	Slightly Disagree 3	Neither Agree Nor Disagree 4	Slightly Agree 5	Somewhat Agree 6	Strongly Agree 7
1. I would do my best to pretend to my supervisor that I didn't discover the salary difference. 2. I would avoid discussing the salary difference with my supervisor. 3. I would minimize conversation related to my salary with my supervisor. 4. I would try to refrain from interacting with my supervisor in contexts where my salary could be brought up. 5. I would keep conversation about my salary to a minimum with my supervisor.							

Paper 2

People's Motivated Perceptions of Women who Claim Gender Discrimination as Complainers[2]

[2] Bell, A. N., Does, S., & Shih, M. (in prep).

Abstract

Extensive research has documented that when historically marginalized groups, such as women and racial minorities, claim discrimination, they are often labelled by others "complainers." The present work seeks to identify *why* certain individuals may be especially motivated to discredit victims of discrimination as complainers. Specifically, across three studies, I show that people who have a stronger preference for hierarchy over equality (i.e., higher in social dominance orientation; SDO) are driven to stereotype women victims of gender discrimination as complainers, over and above the effects of demographics and political ideology. Study 1 (correlational) demonstrated the association between higher social dominance orientation and greater endorsement of the complainer stereotype. Study 2 (experimental) showed that people higher in social dominance orientation were especially motivated to view women victims as complainers if women chose to confront the source of gender discrimination. Study 3 (experimental) examined people's perceptions of a woman who confronted gender discrimination on behalf of women as a social group (rather than for solely her own benefit). I found that women who confronted on behalf of the group (compared to the self) were viewed significantly more favorably (e.g., less as a complainer) in part (a) because they were seen by others as having more altruistic motivations, and (b) because making the structural nature of discrimination salient increased the extent to which participants construed the scenario itself as discriminatory. Importantly, this manipulation was not moderated by participants' levels of SDO, suggesting that confronting on behalf of the group is beneficial irrespective of SDO. Taken together, this work highlights that those who criticize targets of discrimination as complainers may be engaging in such stereotyping in an effort to discredit the validity of discrimination and maintain existing unequal hierarchies between gender groups.

People's Motivated Perceptions of Women who Claim Gender Discrimination as Complainers

Gender inequality in the workplace remains a pervasive and complex social issue (Stamarski & Hing, 2015). Women are routinely discriminated against within organizations when it comes to hiring and promotion decisions (Sturm, 2001), and they remain largely excluded from leadership roles in many industries (Sanchez-Hucles & Davis, 2010). For example, recent reports show that merely 6.4% of CEOs in Fortune 500 companies were women in 2018, and this was a 25% decline from the previous year (Miller, 2018). Furthermore, the current White House administration decided to suspend the Obama-era requirements (i.e., *Lilly Ledbetter Fair Pay Act of 2009*) that organizations larger than 100 employees be required to report the demographics and wages of their workers to the Equal Employment Opportunity Commission (EEOC)—thereby obscuring the data transparency necessary to identify pay inequality and group-based discrimination within organizations (Hess, 2017). As such, it is likely that gender discrimination will persist as a major social justice issue and be even more difficult to document at a structural level in the coming years in the U.S context.

While gender discrimination remains widespread, extensive work has shown that people who choose to "speak up" about having experienced discrimination are generally disliked by others (e.g., Czopp & Monteith, 2003; Dodd, Giuliano, Boutell, & Moran, 2001; Kaiser & Miller, 2001). In fact, those who decide to confront group-based discrimination in the workplace are stereotyped as whiny complainers (Kaiser & Miller, 2003). This stereotype may be especially relevant to women who choose to confront gender discrimination, given that women are stereotyped as overly emotional, sensitive and incompetent (Devine, 1989; LaFrance & Banaji, 1992; Plant, Hyde, Keltner, & Devine, 2000). While this stereotype of those who claim discrimination as complainers is well-documented, and numerous social psychological theories

could explain these negative evaluations (see below), little work has empirically tested potential underlying mechanisms. I propose that some people may be psychologically motivated to stereotype claimants of discrimination as complainers in an effort to discredit their claims and maintain an unequal social hierarchy between groups. To test this hypothesis, I examine the role of social dominance orientation (Pratto, Sidanius, Stallworth, & Malle, 1994), an individual difference measure of one's preference for inequality among social groups, in shaping people's beliefs about women who claim to have experienced gender discrimination in the workplace.

Existing Social Psychological Explanations for Negative Attitudes about Discrimination Confronters

One of the most well-documented and insidious beliefs about individuals who confront prejudice or discrimination is that they are simply "complainers" (Braun & Gollwitzer, 2016; Cadieux & Chasteen, 2015; Kaiser & Miller, 2003; Kowalski, 1996). The act of telling someone that their behavior is prejudiced or discriminatory is often perceived as complaining, and people who complain about a situation that is unfavorable are perceived by others as whiny (Kowalski, 1996). Confrontations and discrimination claims can be dismissed as a person "crying prejudice" (Swim, Cohen, & Hyers, 1998) or playing the "race card" (*Burnell v. Gates Rubber*, 2011). Even when the discrimination was extremely obvious, one study found that an African American job candidate who explained a failure to get hired as being a result of racial discrimination was perceived by others to be a troublemaker and hypersensitive (Kaiser & Miller, 2003). Kaiser and Miller (2001) also found that an African American who blamed a test failure on racism was perceived to be more hypersensitive, emotional, and irritating, as well as less likeable and less of a good person. This may, in part, be because external attributions are viewed more negatively than internal ones for a person's failure (Beauvois & Dubois, 1988; Jellison & Green, 1981).

This underlying belief that people who claim discrimination are complainers might be especially relevant for women targets because of group-based stereotypes (e.g., overly emotional, irrational; Devine, 1989). Women who confront sexism directly are perceived by others as overreacting and overly sensitive, and they are also generally disliked (Czopp & Monteith, 2003; Dodd, et al., 2001). Garcia, Reser, Amo, Redersdorff, and Branscombe (2005) found that women who claim discrimination are perceived to be complainers by both men and women alike because targets who confront are seen as avoiding personal responsibility for their poor performance. As such, it is clear that women are likely to be evaluated negatively by others if they were to come forward about having experienced gender discrimination in the workplace.

There are numerous social psychological explanations to explain why people, especially members of historically advantaged group (e.g., men), may dislike those who confront discrimination. First and foremost, societally dominant group members are motivated to perceive themselves as not prejudiced (Plant & Devine, 1998; Gaertner & Dovidio, 1986). As such, being told that they (or a fellow ingroup member) are prejudiced may be inconsistent with how dominant group members prefer to see themselves. Relatedly, people generally tend to dislike others who claim discrimination because these claims challenge ideological beliefs of a fair and just world in which people get what they deserve (Jost & Banaji, 1994; Major, Kaiser, O'Brian, & McCoy, 2007). When dominant group members are forced to acknowledge the existence of discrimination, it highlights that they have benefited from certain privileges and advantages, thereby initiating defensive psychological states such as denying the existence of inequality (Knowles, Lowery, Chow, & Unzueta, 2014).

Furthermore, according to the *fundamental attribution error*, people often wrongly believe that their own personal failures are the result of situational factors outside one's control,

whereas the failures of others are believed to be the result of individual traits and abilities (for a review, see: Gilbert & Malone, 1995; Heider, 1958; Ross, 1977). As a result, people who make external attributions (e.g., the promotion decision was unfair and my supervisor is biased) for their negative outcomes are viewed less favorably than those who make internal ones (e.g., I need to work harder to get a promotion next time) (Beauvois & Dubois, 1988; Jellison & Green, 1981). People who are perceived as chronic excuse makers are viewed harshly, even when those excuses are valid (Schlenker, Pontari, & Christopher, 2001). The fundamental attribution error may therefore help to explain why people who claim discrimination (i.e., an external attribution) as the cause of a failure or negative event are viewed overwhelmingly by others in negative ways, as found by Kaiser and Miller (2003). Thus, by extension, people generally tend to dislike others who attribute negative outcomes in their lives to discrimination (e.g., Dodd, et al., 2001; Garcia, et al., 2005).

Social Dominance Orientation Motivations

While phenomena like the fundamental attribution error and the belief in a just world may shape people's perceptions of women who claim discrimination as complainers, the present work seeks to explore whether some people may be particularly psychologically motivated to dismiss women who claim discrimination as complainers to serve specific goals. According to social dominance theory, people imbedded within their respective societies seek to develop an ideological belief system that justifies social inequality (with some groups at the top and others at the bottom of the social ladder) as an effort to reduce conflict between social groups (e.g., Pratto, 1999). While yet to be examined in the context of perceptions of people who confront discrimination, I suspect that social dominance orientation (SDO)—i.e., the extent to which individuals prefer hierarchy between social groups to equality—may shape people's evaluations

of those who claim discrimination. People with a greater preference for hierarchy to equality (i.e., higher in SDO) demonstrate a psychological motivation to promote and maintain differences in status between social groups, and they generally show higher levels of prejudice towards outgroups (Pratto et al., 1994; Sibley & Duckitt, 2008; Sidanius & Pratto, 1999; Sidanius, Pratto, & Bobo, 1994, 1996). As such, people who are relatively higher in SDO have been found to engage in hierarchy-enhancing strategies; they strive to maintain power differences between social groups by derogating subordinate group members (Levin & Sidanius, 1999). As such, acts of discrimination against outgroup members actually serve the underlying psychological desires of people higher in SDO by promoting the status of their ingroup and demoting the status of the relevant outgroup.

People who claim discrimination reveal inherent inequalities between groups in society as a function of identifying discrimination as the source of a poor outcome (i.e., unfair treatment on the basis of one's social group membership). I examine the possibility that people higher in SDO may be especially motivated to dismiss women who claim gender discrimination as complainers because this stereotype serves to (a) deny the existence of true inequality between men and women; and (b) reinforce the status quo, with men and women on the top and bottom of the social hierarchy, respectively. As such, people higher in SDO may be invested in viewing women who claim discrimination as simply whining about an entirely "fair" outcome—thereby reinforcing the social hierarchy of women as a subordinate group. Furthermore, beyond claiming to have experienced gender discrimination, I expect that people higher in SDO will view women who choose to actually *confront* gender discrimination (i.e., challenge a discriminatory outcome) as even more of a complainer compared to those who claim discrimination but do not choose to confront. Given that people higher in SDO are motivated to

maintain hierarchy between groups, and confronting discrimination directly challenges the fairness of the hierarchy, I presume that women confronters will be viewed especially negatively (i.e., as a complainer) by those with greater preferences for hierarchy to equality between groups.

Present Research

The present research explores a potential association between individuals' levels of SDO and their perceptions of women who claim, or choose to confront, gender discrimination in the workplace. Broadly, I hypothesize that people who show higher levels of SDO (i.e., a greater preference for hierarchy than equality between social groups) will view women who claim or challenge gender discrimination as complainers. Given that participant gender, age, and political conservatism likely covary with their levels of SDO (Jost, Glaser, Kruglanski, & Sulloway, 2003; Pratto, Stallworth, & Sidanius, 1997; Riemann, Grubich, Hempel, Mergl, & Richter, 1993), I account for such demographics and ideologies as control variables across the present work. Study 1 seeks to establish the relation between SDO and endorsement of the stereotype that women who claim gender discrimination in the workplace are complainers. Study 2 tests the hypothesis that the strength of the association between SDO and endorsement of the complainer stereotype about women will be accentuated when a woman chooses to confront (compared to not confront) gender discrimination in the workplace. Study 3 examines the role of SDO in shaping people's perceptions of a woman who chooses to confront gender discrimination on behalf of all the women in her organization as a group (making the threat to the existing gender hierarchy more salient) compared to confronting on behalf of just her own self-interests. In addition, Study 3 aims to test two potential psychological mechanisms to help explain differences in perceptions of women who confront on behalf of the group (rather than the self): perceived target altruism and the extent to which participants construe the scenario itself as

gender discrimination. Together, these three studies aim to identify social dominance motives (over and above gender and other control variables) as a key predictor in shaping people's impressions of women who claim, and confront, gender discrimination in the workplace. If associations between SDO and endorsement of the complainer stereotype are indeed observed and accentuated as predicted, this would suggest that people may be using the stereotype of victims of discrimination as complainers as a tool for delegitimizing claims of inequality and maintaining the status quo of group-based inequality.

Study 1

The purpose of this study was to test whether or not people who are higher in social dominance orientation show greater endorsement of the stereotype that women who claim gender discrimination are complainers, over and above study controls, including participant gender and political conservatism. All exclusion criteria were established *a priori*, and no statistical analyses were conducted prior to concluding data collection. This study was preregistered (http://aspredicted.org/blind.php?x=qn4bu2).

Methods

Participants. To determine the required sample size a-priori, a power analysis using G*Power software was conducted (Faul, Erdfelder, Lang, & Buchner, 2007). For conducting multiple regression with 4 predictors (SDO, gender, age, political conservatism) with a power of .90, the power analysis yielded a recommended sample of 73 participants to detect a medium effect size of $f^2 = .15$ at $\alpha = .05$. Seventy-six U.S.-based mTurk workers completed the study and were compensated $1.85. One participant was excluded for failing the attention checks (e.g., writing an incorrect answer for the question "2 + 3 = ?"), and the final sample consisted of 75 participants with ages ranging from 19 to 68 years ($M = 33.99$, $SD = 9.36$). Forty-five identified

as men, 29 as women, and one as a genderqueer woman. Sixty-six identified as White/European American, four as multi-racial, three as Asian American/East Asian/South Asian, and two as Black/African American. Sixty-three identified as straight/heterosexual, six as bisexual/queer, three as gay/lesbian, one as asexual, and one as another sexual orientation group not listed.

Procedure and Materials. Participants were recruited on mTurk for a study about experiences in the workplace. After granting informed consent, participants completed measures of endorsement of the complainer stereotype about women who claim discrimination, social dominance orientation, political ideology, and demographic characteristics (described below). All study materials are included in Appendix D.

Endorsement of Complainer Stereotype. This scale was adapted from the perspective of the target in Study 2b to the perspective of the perceiver, such that participants reported their endorsement of the complainer stereotype *about* women who claim discrimination. Sample items included, "In my opinion, most women who claim gender discrimination are complainers" and "In my opinion, most women who claim gender discrimination are oversensitive. " Participants marked the extent to which they agreed with five statements on a Likert scale, ranging from 1 (*strongly disagree*) to 7 (*strongly agree*), and responses were averaged such that higher numbers indicated greater endorsement of the stereotype. The scale showed adequate reliability ($\alpha = .97$).

Social Dominance Orientation (SDO). SDO was measured using the Ho and colleagues (2015) SDO_7, which is an eight-item scale ranging from 1 (strongly oppose) and 7 (strongly support) that assesses participants' preference for social hierarchy. Sample items included, "No one group should dominate in society," and "Some groups of people are simply inferior to other groups." Some items were reverse-coded, and items were averaged to create a composite score such that higher numbers indicated greater preference for hierarchy ($\alpha = .91$).

Control Variables. Participants self-reported their gender (dummy coded with 0 = women and 1 = men), age, and political ideology, which was measured by asking them "How would you describe your political affiliation, ranging from 1 (*very liberal*) to 7 (*very conservative*), such that higher numbers indicated higher levels of political conservative.

Results

Inter-item correlations and descriptive statistics are reported in Table 1. Of note, participants higher in SDO were significantly more politically conservative, $r = .57$, $p < .001$, and showed significantly greater endorsement of the complainer stereotype, $r = .72$, $p < .001$. In addition, participants who were more politically conservative also showed significantly greater endorsement of the complainer stereotype, $r = .57$, $p < .001$.

Regressing Endorsement of Complainer Stereotype on SDO and Control Variables. Participants' endorsement of the complainer stereotype about women who claim discrimination was regressed on our control variables and SDO. As hypothesized, participants higher in SDO demonstrated significantly greater endorsement of the complainer stereotype, $b = 0.70$, $SE = 0.13$, $t = 5.55$, $p < .001$, 95% CI [0.45, 0.95], holding the control variables, political ideology, age, and gender, constant (Table 2). While no effect of gender or age on endorsement of the complainer stereotype was observed, participants higher in political conservatism also demonstrated significantly greater endorsement of the complainer stereotype, $b = 0.28$, $SE = 0.09$, $t = 3.05$, $p = .003$, 95% CI [0.10, 0.46]. Overall, the model explained approximately 59% of the variance in endorsement of the complainer stereotype about women who claim discrimination. Interactions between the predictor variables on endorsement of the complainer stereotype were explored, and no significant interactions were observed, all *p*s > .20.

Discussion

As hypothesized, participants who showed a relatively greater preference for social hierarchy to equality (i.e., higher in SDO) were significantly more likely to view women who claim gender discrimination in the workplace as complainers. This effect held when controlling for important demographic and ideological factors, including participant gender, age, and political conservatism. Interestingly, the only control variable that remained a statistically significant predictor of endorsement of the complainer stereotype about women who claim discrimination was political conservatism, such that participants who were more conservative demonstrated significantly greater endorsement of the complainer stereotype. Because I find that people who prefer hierarchy to equality are especially inclined to view women who claim discrimination as complainers, this suggests that endorsement of the complainer stereotype is likely a psychologically motivated process. People higher in social dominance orientation are driven to reinforce existing unequal social hierarchies between men and women, and discrediting women who claim discrimination as complainers may serve a specific hierarchy-enhancing function.

Study 2

The purpose of this study was to: (a) replicate the association in Study 1 between higher social dominance orientation and greater endorsement of the stereotype that women who claim gender discrimination are complainers (regardless of whether or not they confront), over and above study controls, and (b) test whether or not the association between social dominance orientation and perceptions of women who claim having experienced discrimination is magnified when the woman confronts (compared to does not confront) the source of the discrimination. This is important to examine experimentally, because if people higher in SDO show greater endorsement of the complainer stereotype when a women chooses to confront discrimination

(compared to claiming having experienced it, but leaving it unchallenged) this supports our theory that people higher in SDO label women as complainers as a way to disarm threats to the existing unfair social hierarchy. In addition, I examine participants' perceptions of target character strength and target likeability, as well as victim blaming and victim credibility, as study outcomes. I hypothesize that participants higher in SDO (compared to those lower in SDO) will evaluate the target less favorably (e.g., more as a complainer). I also hypothesize that there will be an interaction between study condition and SDO, such that the association between higher SDO and less favorable evaluations will be magnified in the target confront condition (compared to target not confront condition). All exclusion criteria were established *a priori*, and no statistical analyses were conducted prior to concluding data collection. This study was preregistered (http://aspredicted.org/blind.php?x=8cr6ze).

Methods

Participants. To determine the required sample size a-priori, a power analysis using G*Power software was conducted (Faul, et al., 2007). For conducting multiple regression with 6 predictors (gender, age, political conservatism, SDO, condition, conditionXSDO) with a power of .90, the power analysis yielded a recommended sample of 181 participants to detect a small to medium effect size of $f^2 = .10$ at $\alpha = .05$. Two-hundred and nine U.S.-based mTurk workers completed the study and were compensated $1.85. Twenty-one participants were excluded for failing the attention checks or manipulation check, and the final sample consisted of 188 participants with ages ranging from 18 to 69 years (M = 34.68, SD = 10.04). One hundred and three identified as men, 83 as women, one as a transgender man, and one as a genderqueer woman. One hundred and thirty-nine identified as White/European American, 14 as Asian American/East Asian/South Asian, 12 as multiracial, 11 as Latinx, nine as Black/African

American, and two as Native American. One hundred and sixty-nine identified as straight/heterosexual, 15 as bisexual/queer, two as gay/lesbian, one as asexual, and one as another sexual orientation group not listed.

Procedure and Materials. Participants were recruited on mTurk for a study about experiences in the workplace. After granting informed consent, participants were randomly assigned to read one of two workplace scenarios describing a woman who was unfairly passed over for a promotion at work: one condition in which she confronts her discriminatory manager about the discrimination, and one condition in which she does not confront but does attribute the outcome to discrimination privately. Participants then completed measures of endorsement of the complainer stereotype, victim blaming, target likability, target character strength, target credibility, social dominance orientation, political ideology, and demographic characteristics (described below). All study materials are included in Appendix E.

Endorsement of Complainer Stereotype. This scale, the same used in Study 1, consisted of five statements measuring endorsement of the complainer stereotype on a Likert scale, ranging from 1 (*strongly disagree*) to 7 (*strongly agree*), and responses were averaged such that higher numbers indicated greater endorsement of the stereotype (α = .96).

Victim Blaming. This four-item scale, ranging from 1 (strongly disagree) to 7 (strongly agree), measured the extent to which participants blamed the victim for her outcome. One item was reverse-coded, and items were averaged to create a composite score such that higher numbers indicated greater victim blaming (α = .84). Sample items include, "[She] is to blame in this situation," "[She] brought the situation on herself."

Target Character Strength. This four-item scale, ranging from 1 (strongly disagree) to 7 (strongly agree), measured the extent to which participants viewed the target as having a strong

character. Items were averaged to create a composite score such that higher numbers indicated higher perceived character strength (α = .95). Sample items include, "[She] is brave," and "[She] is courageous."

Target Likeability. This six-item scale adapted from Kaiser and Miller (2003), ranging from 1 (strongly disagree) to 7 (strongly agree), measured the extent to which participants viewed the target as being likeable. Items were averaged to create a composite score such that higher numbers indicated higher likeability (α = .96). Sample items include, "[She] is likeable," and "[She] has a good personality."

Victim Credibility. This two-item scale adapted from Mulder and Winiel (1996), ranging from 1 (not at all) to 7 (absolutely), measured the extent to which participants viewed the victim as credible. Items were averaged to create a composite score such that higher numbers indicated higher credibility ($r = .83$, $p < .001$). Items asked participants if the target is credible and seems like she is telling the truth.

Social Dominance Orientation (SDO). As in Study 1, SDO was measured using the Ho and colleagues (2015) SDO_7, which is an eight-item scale ranging from 1 (strongly oppose) and 7 (strongly support) that assesses participants' preference for social hierarchy. Some items were reverse-coded, and items were averaged to create a composite score such that higher numbers indicated greater preference for hierarchy (α = .91).

Control Variables. Participants self-reported their gender (dummy coded with 0 = women and 1 = men), age, and political ideology, which was measured by asking them "How would you describe your political affiliation, ranging from 1 (*very liberal*) to 7 (*very conservative*), such that higher numbers indicated higher levels of political conservative.

Results

Inter-item correlations and descriptive statistics are reported in Table 3. Of note, participants who reported greater endorsement of the complainer stereotype showed higher levels of SDO, $r = .57$, $p < .001$, and victim blaming, $r = .78$, $p < .001$, as well as lower levels of perceived target character strength, $r = -.18$, $p < .05$, target credibility, $r = -.67$, $p < .001$, and target likeability, $r = -.40$, $p < .001$. In addition, ratings of target credibility and victim blaming were inversely correlated, $r = -.67$, $p < .001$.

Effects of Study Condition on Dependent Variables. First, I conducted a series of independent samples t-tests to test the effects of study condition on our dependent variables. Participants in the confront condition, ($M = 2.31$, $SD = 1.59$), showed significantly greater endorsement of the complainer stereotype about the target than participants in the not confront condition, ($M = 1.68$, $SD = 1.22$), $t(186) = -3.04$, $p = .003$. Participants in the confront condition, ($M = 5.78$, $SD = 1.37$), perceived the target as having a significantly stronger character than participants in the not confront condition, ($M = 4.11$, $SD = 1.44$), $t(186) = -8.11$, $p < .001$. Participants in the confront condition, ($M = 2.21$, $SD = 1.40$), showed higher levels of victim blaming than participants in the not confront condition, ($M = 1.76$, $SD = 0.98$), $t(186) = -2.60$, $p = .01$. Participants in the confront condition, ($M = 5.82$, $SD = 1.37$), did not differ from participants in the not confront condition, ($M = 5.95$, $SD = 1.24$), in perceived victim credibility, $t(186) = 0.64$, $p = .52$. Participants in the confront condition, ($M = 5.35$, $SD = 1.15$), perceived the target as marginally significantly less likeable than participants in the not confront condition, ($M = 5.04$, $SD = 1.16$), $t(186) = 1.88$, $p = .06$.

Regression of Study Condition and SDO on Endorsement of the Complainer Stereotype. As hypothesized, holding control variables constant, there was a significant effect of SDO on endorsement of the complainer stereotype ($p < .001$), such that participants higher in

SDO demonstrated stronger endorsement of the complainer stereotype. In addition, there was a significant effect of study condition on endorsement of the complainer stereotype ($p = .01$), such that participants in the confront condition demonstrated stronger endorsement of the complainer stereotype compared to participants in the no confront condition. As shown in Table 4, SDO significantly moderated the relation between study condition and endorsement of the complainer stereotype ($p = .03$). This interaction is illustrated in Figure 1. The interaction was probed by testing the conditional effects of study condition at three levels of SDO, one standard deviation below the mean, at the mean, and one standard deviation above the mean. As shown in Table 5, study condition was not significantly related to endorsement of the complainer stereotype when SDO was one standard deviation below the mean ($p = .81$), but when SDO was at the mean ($p = .01$) and one standard deviation above the mean ($p = .001$) study condition was significantly related to endorsement of the complainer stereotype, such that people at the mean and one standard deviation above the mean of SDO showed significantly greater endorsement of the complainer stereotype in the confront (compared to not confront) conditions. The Johnson-Neyman technique showed that the relationship between study condition and endorsement of the complainer stereotype was significant when SDO was greater than .32 units below the mean, but not significant with lower values of SDO.

Regression of Study Condition and SDO on Target Character Strength. As hypothesized, holding control variables constant, there was a significant effect of SDO on target character strength ($p <.001$), such that participants higher in SDO demonstrated stronger target character strength. In addition, there was a significant effect of study condition on target character strength ($p < .001$), such that participants in the confront condition viewed the target as having a significantly stronger character compared to participants in the no confront condition.

As shown in Table 6, study condition significantly moderated the relation between SDO and target character strength ($p < .001$). This interaction is illustrated in Figure 2. The interaction was probed by testing the conditional effects of SDO at the two levels of study condition, not confront condition (0) and confront condition (1). As shown in Table 7, SDO was marginally significantly related to perceived target character strength in the no confront condition ($p = .08$), but in the confront condition SDO was significantly related to perceived target character strength ($p < .001$), such that participants higher in SDO saw the target as having less of a strong character than those low in SDO.

Regression of Study Condition and SDO on Victim Blaming. As hypothesized, holding control variables constant, there was a significant effect of SDO on victim blaming ($p < .001$), such that participants higher in SDO demonstrated higher levels of victim blaming. In addition, there was a significant effect of study condition on victim blaming ($p = .04$), such that participants in the confront condition demonstrated higher levels of victim blaming compared to participants in the no confront condition. As shown in Table 8, SDO did not significantly moderate the relation between study condition and victim blaming ($p = .11$). However, because this interaction neared statistical significance, its simple effects were explored. This interaction is illustrated in Figure 3. The interaction was probed by testing the conditional effects of study condition at three levels of SDO, one standard deviation below the mean, at the mean, and one standard deviation above the mean. As shown in Table 9, study condition was not significantly related to victim blaming when SDO was one standard deviation below the mean ($p = .75$), but when SDO was at the mean ($p = .04$) and one standard deviation above the mean ($p = .008$) study condition was significantly related to victim blaming. The Johnson-Neyman technique

showed that the relationship between study condition and victim blaming was significant when SDO was greater than .13 units below the mean, but not significant with lower values of SDO.

Regression of Study Condition and SDO on Victim Credibility. As hypothesized, holding control variables constant, there was a significant effect of SDO on victim credibility (p <.001), such that participants higher in SDO demonstrated lower levels of perceived victim credibility. A significant effect of study condition on victim credibility was not observed (p = .77), such that participants in the confront condition and participants in the no confront condition did not differ from one another in perceived victim credibility. As shown in Table 10, SDO marginally significantly moderated the relation between study condition and victim credibility (p = .06). However, when the interaction was probed, the simple slopes were not statistically significant.

Regression of Study Condition and SDO on Target Likeability. As hypothesized, holding control variables constant, there was a significant effect of SDO on target likeability (p <.001), such that participants higher in SDO demonstrated lower levels of target likeability. A significant effect of study condition on target likeability was not observed (p = .27), such that participants in the confront condition and participants in the no confront condition did not differ from one another in target likeability. As shown in Table 11, SDO did not significantly moderate the relation between study condition and target likeability (p = .81).

Discussion

Across our dependent variables, participants with a relative preference for social hierarchy to equality (i.e., higher in SDO) viewed women who claim discrimination significantly less favorably. In addition, for all dependent variables except for target likeability, the association between higher levels of SDO and less favorable evaluations of the target was more

robust among those in the confront (compared to not confront) condition. Results suggest that people higher in SDO (compared to those lower in SDO) view women who construe unfair treatment at work as gender discrimination more poorly, but particularly so when the target chooses to confront her discriminatory supervisor (i.e., address the discrimination) compared to when she chooses not to confront. Thus, people who prefer social hierarchy to equality between groups are especially likely to label a target of discrimination as a complainer when the target chooses to challenge the existing hierarchy by confronting the perpetrator of the discrimination. This suggests also that when women choose to confront gender discrimination in the workplace, they will likely encounter greater resistance when interacting with others who are higher in SDO. Of note, it is important to point out that people lower in SDO did not differ in the extent to which they endorse the complainer stereotype about the target as a result of her decision to confront her discriminatory supervisor.

Participants in the confront condition viewed the target as having a significantly stronger character than participants in the not confront condition, and this association was attenuated for those higher in SDO (compared to those lower in SDO). Interestingly, participants higher in SDO still viewed the target as having a stronger character when she confronted compared to when she did not confront, even though she was seen as more of a complainer, more to blame, and less credible when she confronted compared to when she did not confront. Together these findings suggest that among people higher in SDO, targets of discrimination are in a "catch-22." When women confront gender discrimination they are seen as complainers who are to blame for their situations; when they do not confront, they are seen as having a weaker character. Lastly, while people higher in SDO disliked the target of discrimination more than those low in SDO, their ratings of likeability did not vary based on study condition, nor did study condition interact

with SDO. As such, in the present study participants ratings of likeability were unaffected by the target's confronting behavior.

Study 3

The purpose of this study is to: (a) replicate the associations documented in Study 2 between higher social dominance orientation and our study outcomes, over and above study controls, (b) test a series of competing hypotheses about whether or not framing a confrontation of gender discrimination as on behalf of women as a group, compared to on behalf of oneself, elicits more threatening or favorable responses from participants, and (c) test whether or not the association between study condition and outcomes is moderated by social dominance orientation. I examine the same dependent variables as in Study 2 (endorsement of the complainer stereotype, target character strength, target likeability, victim blaming, and victim credibility), as well as two new outcomes: perceived target altruism and construal of the scenario as discriminatory, which will allow us to test possible mechanisms. Our three competing hypotheses are as follows:

Threat to Hierarchy Hypothesis: I hypothesize that there will be an interaction between study condition and SDO, such that the association between higher SDO and less favorable evaluations will be magnified in the confront on behalf of group condition (compared to confront on behalf of the self condition). This would suggest that when a woman confronts on behalf of other women in her organization, this is especially psychologically threatening to people higher in SDO, as calling attention to the structural nature of gender discrimination directly challenges existing gender hierarchies.

Gender Role Hypothesis: I hypothesize that there will be a significant indirect effect of study condition on our dependent variables via perceived target altruism, such that participants in

the confront for group (compared to confront for self) condition would elicit significantly higher ratings of target altruism, which would, in turn, be associated with more favorable outcomes (i.e., less endorsement of the complainer stereotype). Given that gender roles proscribe that women are other-focused and sacrifice for the wellbeing of others (Eagly & Steffen, 1984; Rand, Brescoll, Everett, Capraro, & Barcelo, 2016), I expect that a woman who confronts on behalf of others will be viewed more favorably than a woman who confronts to advocate for herself.

Salience of Structural Discrimination Hypothesis: I hypothesize that there will be a significant indirect effect of study condition on our dependent variables via construal of the scenario as discriminatory, such that participants in the confront for group (compared to confront for self) condition would be significantly more likely to construe the scenario as discrimination, which would, in turn, be associated with more favorable outcomes (i.e., less endorsement of the complainer stereotype). By confronting on behalf of women as a group, this may make the structural nature of gender discrimination more salient, therefore resulting in participants' impressions of the target's account of the scenario as more likely to in fact be discrimination.

All exclusion criteria were established *a priori*, and no statistical analyses were conducted prior to concluding data collection. This study was preregistered (http://aspredicted.org/blind.php?x=6s9he9).

Methods

Participants. To determine the required sample size a-priori, a power analysis using G*Power software was conducted (Faul, et al., 2007). For conducting multiple regression with 6 predictors (gender, age, political conservatism, SDO, condition, conditionXSDO) with a power of .90, the power analysis yielded a recommended sample of 181 participants to detect a small to medium effect size of $f^2 = .10$ at $\alpha = .05$. Three hundred and fifty-nine U.S.-based mTurk

workers completed the study and were compensated $1.85. Sixteen participants were excluded for failing the attention checks, two were excluded for being repeat workers, and 157 were excluded for failing the manipulation check. Only 11 participants failed the manipulation check in the confront on behalf of group condition. However, 145 participants failed the manipulation check in the confront on behalf of self condition, the majority of which indicated that the target confronted on behalf of the group when she was actually confronting on behalf of herself. Open ended responses from participants suggested that although the scenario stated that the target confronted on behalf of herself, participants assumed that she was also confronting on behalf of other women. Only participants who passed the manipulation check were conserved. The final sample consisted of 184 participants with ages ranging from 18 to 69 years (M = 35.12, SD = 10.96). One hundred and ten identified as men, 72 as women, one as transgender, and one as gender non-conforming. One hundred and thirty-nine identified as White/European American, 13 as Asian American/East Asian/South Asian, 11 as Latinx, 11 as Black/African American, seven as multiracial, and three as Native American. One hundred and sixty identified as straight/heterosexual, 13 as bisexual/queer, six as asexual, three as gay/lesbian, and two as questioning.

Procedure and Materials. Participants were recruited on mTurk for a study about experiences in the workplace. After granting informed consent, participants were randomly assigned to read one of two workplace scenarios describing a woman who was unfairly passed over for a promotion at work: one condition in which she confronted her discriminatory manager on behalf of all the women at the organization including herself so that women would have a "fair shot" at promotions, and one condition in which she confronted so that she personally would have a "fair shot" at the promotion. Participants then completed our dependent variables

(endorsement of the complainer stereotype, victim blaming, target likability, target character strength, target credibility, target altruism, construal of the scenario as discrimination), as well as measures of social dominance orientation, political ideology, and demographic characteristics (described below). All study materials are included in Appendix F.

Endorsement of Complainer Stereotype. This scale, the same used in Study 2, consisted of five statements on a Likert scale, ranging from 1 (*strongly disagree*) to 7 (*strongly agree*), and responses were averaged such that higher numbers indicated greater endorsement of the stereotype ($\alpha = .97$).

Victim Blaming. This four-item scale, ranging from 1 (strongly disagree) to 7 (strongly agree), measured the extent to which participants blamed the victim for her outcome. One item was reverse-coded, and items were averaged to create a composite score such that higher numbers indicated greater victim blaming ($\alpha = .86$). Items were adapted slightly from Study 2 to reflect the focus on the promotion decision (rather than "the situation") to minimize any potential ambiguity. Sample items include "[She] is to blame for not getting the promotion," and "[She] brought the situation (i.e., not getting the promotion) on herself."

Target Character Strength. As in Study 2, this four-item scale, ranging from 1 (strongly disagree) to 7 (strongly agree), measured the extent to which participants viewed the target as having a strong character. Items were averaged to create a composite score such that higher numbers indicated higher perceived character strength ($\alpha = .95$). Sample items include "[She] is brave," and "[She] is courageous."

Target Likeability. As in Study 2, his six-item scale adapted from Kaiser and Miller (2003), ranging from 1 (strongly disagree) to 7 (strongly agree), measured the extent to which participants viewed the target as being likeable. Items were averaged to create a composite score

such that higher numbers indicated higher likeability (α = .97). Sample items include "[She] is likeable," and "[She] has a good personality."

Victim Credibility. This two-item scale adapted from Mulder and Winiel (1996), ranging from 1 (not at all) to 7 (absolutely), measured the extent to which participants viewed the victim as credible. Items were averaged to create a composite score such that higher numbers indicated higher credibility ($r = .93$, $p < .001$). Again, items were adapted slightly from Study 2 to reflect the focus on the promotion decision (rather than "the situation") to minimize any potential ambiguity. Items included, "Do you perceive [her] as credible in her account of the promotion decision?" and "Do you get the impression that [she] is truthful in her account of the promotion decision?".

Target Altruism. This five-item scale (adapted from Rim & Song, 2016), ranging from 1 (strongly disagree) to 7 (strongly agree), measured the extent to which participants viewed the target as being altruistic. Two items were reverse-coded, and items were averaged to create a composite score such that higher numbers indicated greater perceived altruism (α = .86). Sample items include "[She] truly cares about others," and "[She] is altruistic."

Construal of Scenario as Discriminatory. This was measured using a single face-valid item, "In your opinion, does [her] not getting the promotion constitute gender discrimination at NextBuy?", on a Likert-type scale ranging from 1 (No, definitely was NOT gender discrimination) to 10 (Yes, definitely was gender discrimination), such that higher numbers indicate a greater construal of the scenario as discrimination.

Social Dominance Orientation (SDO). As in Studies 1 and 2, SDO was measured using the Ho and colleagues (2015) SDO_7, which is an eight-item scale ranging from 1 (strongly oppose) and 7 (strongly support) that assesses participants' preference for social hierarchy. Some

items were reverse-coded, and items were averaged to create a composite score such that higher numbers indicated greater preference for hierarchy ($\alpha = .91$).

Control Variables. Participants self-reported their gender (dummy coded with 0 = women and 1 = men), age, and political ideology, which was measured by asking them "How would you describe your political affiliation, ranging from 1 (*very liberal*) to 7 (*very conservative*), such that higher numbers indicated higher levels of political conservative.

Results

Inter-item correlations and descriptive statistics are reported in Table 12. Of note, endorsement of the complainer stereotype was significantly correlated with higher levels of victim blaming, $r = .81$, $p < .001$, and lower ratings of target character strength, $r = -.71$, $p < .001$, target credibility, $r = -.78$, $p < .001$, target likeability, $r = -.67$, $p < .001$, target altruism, $r = -.66$, $p < .001$, and extent to which the scenario was discrimination, $r = -.68$, $p < .001$. In addition, all dependent variables were correlated with one another at $p < .001$.

Effects of Study Condition on Dependent Variables. First, I conducted a series of independent samples t-tests to test the effects of study condition on our dependent variables. Participants in the confront for group condition, ($M = 2.19$, $SD = 1.60$), showed significantly less endorsement of the complainer stereotype about the target than participants in the confront for self condition, ($M = 2.78$, $SD = 1.80$), $t(182) = 2.34$, $p = .02$. Participants in the confront for group condition, ($M = 6.02$, $SD = 1.15$), perceived the target as having a significantly stronger character than participants in the confront for self condition, ($M = 5.43$, $SD = 1.43$), $t(182) = -3.03$, $p = .03$. Participants in the confront for group condition, ($M = 2.50$, $SD = 1.37$), showed significantly lower levels of victim blaming than participants in the confront for self condition, ($M = 2.92$, $SD = 0.1.51$), $t(182) = 1.99$, $p = .05$. Participants in the confront for group condition,

($M = 5.80$, $SD = 1.34$), reported that the victim had significantly more credibility than participants in the confront for self condition, ($M = 5.03$, $SD = 1.79$), $t(182) = -3.33$, $p = .001$. Participants in the confront for group condition, ($M = 5.11$, $SD = 1.25$), perceived the target as significantly more likeable than participants in the confront for self condition, ($M = 4.47$, $SD = 1.35$), $t(182) = -3.38$, $p = .001$. Participants in the confront for group condition, ($M = 4.77$, $SD = 1.19$), perceived the target as significantly more altruistic than participants in the confront for self condition, ($M = 4.01$, $SD = 1.26$), $t(182) = -4.20$, $p < .001$. Participants in the confront for group condition, ($M = 7.59$, $SD = 2.34$), construed the scenario as significantly more discriminatory than those in the confront for self condition, ($M = 6.37$, $SD = 2.59$), $t(182) = -3.28$, $p = .001$.

Testing the *Threat to Hierarchy Hypothesis*. A series of seven multiple linear regressions were conducted examining the effects of study condition (0 = confront for self, 1 = confront for group), SDO, and the interaction between study condition and SDO on our dependent variables, holding the control variables (gender, age, political conservatism) constant: endorsement of the complainer stereotype, perceived target character strength, victim blaming, victim credibility, target likeability, perceived target altruism, and construal of the scenario as discrimination. Across all seven outcomes, I did not find support for the *threat to hierarchy hypothesis*, such that no interactions between study condition and SDO were observed to significantly predict our dependent variables (ps > .42). As such, these non-significant higher-order interaction terms were removed from the regression analyses for parsimony. As shown in Table 13, associations between SDO and our study outcomes replicated the effects observed in Study 2. Over and above the study control variables, participants higher in SDO showed significantly greater endorsement of the complainer stereotype, lower ratings of target character strength, higher levels of victim blaming, lower ratings of victim credibility, and lower ratings of

target likeability, (ps < .001). As shown in Table 14, a similar pattern was observed for our new study outcomes, such that participants higher in SDO reported significantly lower ratings of perceived target altruism, ($p < .001$), and lower ratings of the scenario as discriminatory, ($p < .001$).

Testing the *Gender Role Hypothesis* and *Salience of Structural Discrimination Hypothesis*. In line with the *gender role hypothesis*, I would expect that the relationship between study condition and our dependent variables would be mediated by perceived target altruism, such that participants in the confront on behalf of the group condition (compared to confront on behalf of the self condition) would show higher levels of perceived target altruism, which would, in turn, be associated with more favorable evaluations of the target. In line with the *salience of structural discrimination hypothesis*, I would expect that the relationship between study condition and our dependent variables would be mediated by construal of the scenario as discriminatory, such that participants in the confront on behalf of group condition (compared to confront on behalf of self condition) would show greater construal of the scenario as discriminatory, which would, in turn, be associated with more favorable evaluations of the target. To test these competing hypotheses simultaneously, Hayes' (2018) PROCESS macro for bootstrapping mediation analysis was used. As in Studies 1 and 2, gender (0 = women, 1 = men), age, political conservatism (1 = very liberal, 7 = very conservative) were included as covariates in all analyses. In addition, SDO (1 = preference for equality, 7 = preference for hierarchy) was also included as a covariate in all analyses. Study condition (0 = confront for self, 1 = confront for group) was entered as the predictor, perceived target altruism and construal of the scenario as discrimination as the two mediators, and each of the five dependent variables (endorsement of the complainer stereotype, perceived target character strength, victim blaming, victim credibility,

and target likeability) as the respective outcomes, using model 4 with 10,000 bootstrap samples. All results remain significant and in the same direction when the study covariates were excluded.

Endorsement of the Complainer Stereotype. There was a significant indirect effect of study condition on endorsement of the complainer stereotype via perceived target altruism, $b = -0.23$, $SE = .09$, 95% CI [-0.42, -0.09]. Namely, participants in the confront for group condition (compared to confront for self condition) reported significantly higher levels of perceived target altruism, which, in turn, was associated with less endorsement of the complainer stereotype (see Figure 4). Similarly, there was a significant indirect effect of study condition on endorsement of the complainer stereotype via construal of the scenario as discrimination, $b = -0.21$, $SE = .09$, 95% CI [-0.42, -0.05]. Namely, participants in the confront for group condition (compared to confront for self condition) reported significantly greater construal of the scenario as discrimination, which, in turn, was associated with less endorsement of the complainer stereotype (see Figure 4).

Perceived Target Character Strength. There was a significant indirect effect of study condition on perceived target character strength via perceived target altruism, $b = .23$, $SE = .08$, 95% CI [0.10, 0.40]. Namely, participants in the confront for group condition (compared to confront for self condition) reported significantly higher levels of perceived target altruism, which, in turn, was associated with greater perceived target character strength (see Figure 5). Similarly, there was a significant indirect effect of study condition on perceived target character strength via construal of the scenario as discrimination, $b = 0.18$, $SE = .08$, 95% CI [0.05, 0.35]. Namely, participants in the confront for group condition (compared to confront for self condition) reported significantly greater construal of the scenario as discrimination, which, in turn, was associated with greater perceived target character strength (see Figure 5).

Victim Blaming. There was a significant indirect effect of study condition on victim blaming via perceived target altruism, b = -0.12, SE = .0.07, 95% CI [-0.28, -0.01]. Namely, participants in the confront for group condition (compared to confront for self condition) reported significantly higher levels of perceived target altruism, which, in turn, was associated with lower levels of victim blaming (see Figure 6). Similarly, there was a significant indirect effect of study condition on victim blaming via construal of the scenario as discrimination, b = .-0.23, SE = .09, 95% CI [-0.43, -0.06]. Namely, participants in the confront for group condition (compared to confront for self condition) reported significantly greater construal of the scenario as discrimination, which, in turn, was associated with lower levels of victim blaming (see Figure 6).

Victim Credibility. There was a significant indirect effect of study condition on victim credibility via perceived target altruism, b = .28, SE = .09, 95% CI [0.12, 0.48]. Namely, participants in the confront for group condition (compared to confront for self condition) reported significantly higher levels of perceived target altruism, which, in turn, was associated with higher levels of victim credibility (see Figure 7). Similarly, there was a significant indirect effect of study condition on victim credibility via construal of the scenario as discrimination, b = .0.25, SE = .10, 95% CI [0.06, 0.47]. Namely, participants in the confront for group condition (compared to confront for self condition) reported significantly greater construal of the scenario as discrimination, which, in turn, was associated with higher levels of victim credibility (see Figure 7).

Target Likeability. There was a significant indirect effect of study condition on target likeability via perceived target altruism, b = .31, SE = .08, 95% CI [0.15, 0.48]. Namely, participants in the confront for group condition (compared to confront for self condition)

reported significantly higher levels of perceived target altruism, which, in turn, was associated with higher levels of target likeability (see Figure 8). Similarly, there was a significant indirect effect of study condition on target likeability via construal of the scenario as discrimination, b = .10, SE = .05, 95% CI [0.01, 0.16]. Namely, participants in the confront for group condition (compared to confront for self condition) reported significantly greater construal of the scenario as discrimination, which, in turn, was associated with higher levels of target likeability (see Figure 8).

Discussion

Firstly, Study 3 replicated the associations between participants' preference for social hierarchy between groups to equality and their attitudes about women who claim gender discrimination in the workplace in Study 2. Specifically, participants higher in SDO showed greater endorsement of the complainer stereotype, lower ratings of target character strength, lower ratings of target likeability, higher ratings of victim blaming, and lower ratings of victim credibility. In addition, I found that participants higher in SDO also viewed the target as less altruistic, and they were less likely to construe the scenario itself as gender discrimination. These findings suggest that overall, people higher in SDO view women who claim gender discrimination less favorably and are less likely to believe that gender-based unfair treatment in the workplace constitutes gender discrimination.

Second, I examined whether participants would view women who confronted gender discrimination on behalf of women as a social group (compared to on behalf of themselves) as significantly more threatening, or more instead favorably. Specifically, in line with our *threat to hierarchy hypothesis*, I would have expected that when people higher in SDO read about a woman who confronts on behalf of all the women in the organization, as opposed to on behalf of

herself, that she would be viewed least favorably. In other words, confronting on behalf of women as a group (compared to the self) would have been perceived as significantly more threatening to the social hierarchy, which would have led to more negative evaluations of the target. However, this is not the pattern of results I observed; I did not find any interaction between study condition and participants' levels of SDO on the study outcomes.

Instead, I found support for both our *gender role hypothesis and salience of structural discrimination hypothesis*. Specifically, in line with gender role expectations for women that they prioritize the needs, and sacrifice for the wellbeing, of others (Eagly & Steffen, 1984; Rand, et al., 2016), participants viewed the target as significantly more altruistic in the confront on behalf of women condition (compared to confront on behalf of herself condition), which was associated with significantly less endorsement of the complainer stereotype, higher ratings of target character strength, higher ratings of target likeability, less victim blaming, and greater victim credibility. In addition, participants were significantly more likely to construe the scenario as discrimination in the confront on behalf of women condition (compared to confront on behalf of herself condition), which was similarly associated with significantly less endorsement of the complainer stereotype, higher ratings of target character strength, higher ratings of target likeability, less victim blaming, and greater victim credibility.

General Discussion

In spite of recent advances in the United States, gender inequality in the workplace persists, and gender discrimination remains an important modern social issue (e.g., Miller, 2018; Pew Research Center, 2013; 2016). While gender discrimination may be pervasive, it is can be difficult for women to come forward and address instances of such unfair treatment in the workplace. For example, while the majority of women intend to "speak up" when experiencing

sexism and confront their perpetrator, women do so exceedingly rarely (Swim & Hyers, 1999; Woodzicka & LaFrance, 2001). In part, this is because women harbor concerns that their claims of experiencing discrimination will not be met by support from others, such as in the form of being disliked, ostracized or facing harsh consequences for speaking up (e.g., Shelton & Stewart, 2004; Shih, Young, & Bucher, 2013).

Ample research supports the notion that women who either claim or choose to confront (i.e., challenge the perpetrator) gender discrimination will indeed most likely encounter negative evaluations from others. Those who choose to confront discrimination are often disliked by others and are stereotyped as complainers (Czopp & Monteith, 2003; Dodd, et al., 2001; Kaiser & Miller, 2003). Given that women are already stereotyped as overly emotional, sensitive and incompetent (Devine, 1989; LaFrance & Banaji, 1992; Plant, Hyde, Keltner, & Devine, 2000), women who choose to confront gender discrimination in the workplace have particular challenges to overcome with regards to other people's evaluations of them. While prior work has documented the negative consequences of this complainer stereotype for women in terms of the potential social costs they might encounter, exceedingly little research has empirically examined underlying psychological reasons as to *why* some people stereotype women who claim or confront gender discrimination as complainers.

The present work seeks to identify a previously unexplored psychological motivation to help explain why women who address their experiences of gender discrimination in the workplace are seen as complainers by some: the drive to maintain existing unequal hierarchies between social groups. Specifically, across three studies, I find evidence that people who show a preference for hierarchy to equality between social groups (i.e., are higher in Social Dominance Orientation; SDO; Pratto et al., 1994) are significantly more likely to stereotype women who

claim or confront gender discrimination to be complainers, and are also more likely to view them unfavorably, in general. In Study 1, I find that holding the potential effects of demographic and ideological control variables constant (namely, participant gender, age, and political conservatism), participants who are higher in SDO are show significantly greater endorsement of the complainer stereotype about women in general who claim to have experienced gender discrimination in the workplace. Interestingly, political conservatism was the only control variable that uniquely predicted endorsement of the complainer stereotype over and above SDO, such that participants who were more politically conservative also showed significantly greater endorsement of the complainer stereotype. This is in line with recent polling data showing that even the majority of Republican women view gender discrimination as a non-issue, whereas the majority of Democratic women do, in fact, view gender discrimination as an important current social issue (Langer Research Associates, 2019).

In Study 2, I examined people's perceptions of women who choose to confront (i.e., challenge) the source of gender discrimination, compared to those who choose not to confront, as well as the effects of participants' levels of SDO. Consistent with prior work on claiming to have experienced racism (Kaiser & Miller, 2003), a woman who confronted gender discrimination was viewed more as a complainer and rated as less likeable than a woman who chose not to confront the discrimination. In addition, I found that a woman who confronted gender discrimination (compared to a woman who did not confront) was both blamed more for her role in the situation and also viewed as having a stronger character; as such, women who confront are seen as blame-worthy, whereas women who do not confront are seen as having a weaker character, which serves as a "double-bind" for women in the context of confronting discrimination. I did not observe an effect of confronting vs. not confronting on participants'

evaluations of the woman's credibility. Regarding the effects of SDO, consistent with our hypotheses, participants relatively higher in SDO showed significantly higher levels of endorsement of the complainer stereotype, lower ratings of the target's character strength, higher levels of victim blaming, lower ratings of victim credibility, and lower ratings of the target's overall likeability as a person, over and above the effects of our control variables.

As hypothesized in Study 2, I found evidence that not only are people higher in SDO more likely to view a woman who claims gender discrimination as a complainer; this was especially the case when the woman chose to confront (compared to not confront) the source of the workplace discrimination. Specifically, I found that among people who are above or at the mean in SDO, confronting discrimination—which is a way of challenging existing gender hierarchies—elicited significantly greater endorsement of the stereotype that the target was a complainer. This suggests that people who are relatively higher in SDO may be psychologically motivated to discount women's claims of discrimination as mere complaining, particularly if the woman confronts the source of the discrimination by challenging the unfair treatment.

In addition, I examined the interactions between participants' levels of SDO and study condition (confront vs. not confront) on our other dependent variables. I found the same pattern of results with victim blaming as I did with endorsement of the complainer stereotype, such that participants who were at or above the mean in SDO engaged in significantly more victim blaming when the target confronted compared to when she did not confront. I also found that when the target confronted (compared to not confront), participants higher in SDO saw the target as having significantly less character strength than participants lower in SDO. While there was a marginally significant interaction between study condition and participants' levels of SDO in predicting perceived victim credibility, the simple slopes were not statistically significant and

therefore not interpreted. Lastly, participants' likeability ratings of the target were unaffected by study condition, and an interaction between their levels of SDO and study condition was not observed.

Study 3 sought to both replicate the associations between participants' levels of SDO and their evaluations of the target of gender discrimination, as well as explore people's perceptions of women who confront gender discrimination in the workplace explicitly on behalf of other women (i.e., group-level confronting), compared to on behalf of their own self-interests (i.e., individual-level confronting). Firstly, I replicated findings from Study 2, such that participants who were relatively higher in SDO showed significantly greater endorsement of the complainer stereotype, lower ratings of target character strength, higher levels of victim blaming, lower ratings of victim credibility, and lower ratings of target likeability, over and above control variables. In addition, participants higher in SDO (compared to those lower in SDO) rated the target as significantly less altruistic and were less likely to construe the scenario as gender discrimination, generally. Overall, participants viewed the target significantly more favorably when she confronted on behalf of the group (i.e., women at the organization) compared to when she confronted on behalf of herself only. When confronting on behalf of the group (compared to herself) the target was seen as being less of a complainer, less blameworthy, more likeable, and more altruistic, as well as having a stronger character; in addition, participants were significantly more likely to construe the scenario as discriminatory.

In Study 3, I did not find support for our *threat to hierarchy hypothesis*, such that the effects of the study condition did not vary depending on participants' levels of SDO. Participants relatively higher in SDO did not view the confronting on behalf of group condition more negatively than those relatively lower in SDO. However, I did find support for both our

gender role hypothesis, in which we expected confronting on behalf of the group to be perceived more favorably because gender roles proscribe that women are altruistic (Eagly & Steffen, 1984), and our *salience of structure discrimination hypothesis*, in which we expected that calling attention to the structural nature of discrimination through confronting on behalf of the group would elicit more perceived validity to the claims, respectively. Specifically, participants in the confront on behalf of group condition (compared to the confront on behalf of self condition) viewed the target as significantly more altruistic and were significantly more likely to construe the scenario as discrimination, which in turn was associated with more favorable evaluations of the target: less endorsement of the complainer stereotype, higher ratings of character strength, less victim blaming, higher ratings of victim credibility, and greater likeability. Importantly, the indirect effects of study condition on our dependent variables via both perceived target altruism and construal of the scenario as discrimination held, over and above the effects of SDO and our study control variables. Together, these results suggest that women may benefit from framing confrontations of gender discrimination in the workplace as for the benefit of women as a group (including one's self), rather than for the individual's own self-interest. When a woman confronts on behalf of the group, people come to view her more favorably and are more likely to believe that the incident truly was discrimination—regardless of their levels of SDO, age, gender, and political conservatism.

Regarding the role of participant gender in shaping evaluations of confronters of gender discrimination, I find mixed evidence across the studies, consistent with prior work (Dodd et al., 2001; Garcia, et al., 2005; Schmitt, Ellemers, & Branscombe, 2003). Across the three studies, men participants generally viewed women targets of discrimination significantly more negatively than women participants. However, once participants' levels of SDO were taken into account,

participant gender was not a significant predictor of their evaluations of the target in Studies 1 and 2. In Study 3, I did observe a significant effect of participant gender on our dependent variables over and above the effects of SDO, such that men (compared to women) showed greater endorsement of the complainer stereotype; rated the target as less likeable, credible, and altruistic; blamed the victim more; and were less likely to construe the scenario itself as discriminatory. While the effects of participant gender on our study outcomes were not always statistically significant when accounting for participants' levels of SDO, the general trend across studies was that men participants tended to rate women who claimed discrimination more negatively than women participants.

Limitations and Future Directions

Importantly, the present work has several limitations. First and foremost, all data were collected using mTurk, a data collection resource in which participants tend to be more politically liberal than the broader population, approximately 30 years of age on average, predominately White, and mostly men. While efforts were made to maximize the quality of the data I collected, such as manipulation and attention checks, future work should seek to replicate these associations with a nationally representative sample and using a variety of survey data collection methodologies to increase the generalizability of findings.

Second, Studies 2 and 3 relied on a similar workplace scenario of gender discrimination in which a woman was passed over unfairly for a promotion. While I find consistent results across these two studies, future work should examine the effects of social dominance orientation and women's decisions to confront in other manifestations of gender discrimination. For example, associations between SDO and endorsement of the complainer stereotype about women who confront gender discrimination may be magnified or diminished as the discrimination

incident itself shifts in ambiguity. Perhaps differences between people who are relatively higher and lower in SDO would be attenuated when discrimination scenarios are extremely obvious and undeniable. Future work should examine the role of the seriousness and overtness of the gender discrimination in shaping the extent to which higher levels of SDO are associated with less favorable evaluations of the target of gender discrimination, particularly when the target confronts.

Lastly, while Study 3 largely replicated associations from the prior studies that people higher in SDO showed more negative evaluations of women who claim and/or confront gender discrimination in the workplace, it remains unclear why participants higher in SDO did not seem to experience a woman confronting on behalf of the group (compared to her own self-interests) as particularly psychologically threatening. We expected that people with a greater preference for hierarchy to equality between social groups would find a woman confronting on behalf of the group as especially challenging to the social hierarchy, and therefore would elicit more negative evaluations of the target. Rather than an interaction between participants' levels of SDO and study condition in predicting evaluations of the target as was observed in Study 2, people instead generally rated the target more favorably in the confronting on behalf of the group condition compared to confronting on behalf of the self condition. It appears that our study manipulation of confronting on behalf of the group vs. the self influenced participants' evaluations of the target herself (e.g., her personality traits), rather than manipulating how psychologically threatening the confrontation was perceived to be to the social hierarchy more broadly. Future work would benefit from examining other potential experimental paradigms to enhance the subjective experience of threat to the social hierarchy and test its relation to SDO in predicting evaluations of women who claim discrimination. For example, people higher in SDO may be

more likely to stereotype women who claim discrimination as complainers if they file a formal grievance in the organization (i.e., directly challenging inequality with a legal action) compared to women who express their discontent with discrimination to the source but do not take formal steps within the organization to address the unfair treatment. As such, more research is needed to identify how threats to the social hierarchy between men and women in an organizational setting are experienced by people with a preference for inequality between groups and the associated implications for their perceptions of women who seek to address their experiences of gender discrimination.

Conclusions

People who are higher in social dominance orientation engage in hierarchy-enhancing strategies and derogate subordinate group members in an effort to maintain power differences between social groups (Levin & Sidanius, 1999). Across the three studies (one correlational and two experimental), I found consistent evidence that people who demonstrate a preference for hierarchy over equality between social groups are motivated to view women who claim gender discrimination as complainers. This is particularly the case if a woman chooses to directly confront the source of discrimination and challenge the existing unequal gender hierarchy. I also found that when a woman confronts discrimination but explicitly stated that she was confronting with the motivation to help other women in her organization, she was perceived significantly more favorably by others compared to when stating that she was confronting for her own self-interests only. This may be because confronting on behalf of women as a group is consistent with gender stereotypes of women as communal and altruistic, and because calling attention to inequality against women as a group makes the structural nature of discrimination more salient, therefore bringing validity to women's claims. Together, these findings show that stereotyping

women who confront discrimination as complainers is likely motivated by people's desire to maintain an unequal status between men and women in society, with the complainer stereotype being a social psychological tool to dismiss claims of discrimination.

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Table 1.

Descriptive Statistics and Inter-Item Correlations of All Variables in Study 1.

	1.	2.	3.	4.	5.	*M*	*SD*
1. Gender (0 = women)	--					0.60	0.49
2. Age	-.10	--				33.99	9.36
3. Political Conservatism	.10	.31**	--			3.31	1.70
4. SDO	.20†	.06	.57***	--		2.30	1.19
5. Complainer Stereotype Endorsement	.27*	-.02	.57***	.72***	--	2.52	1.57

†$p \leq .10$, *$p \leq .05$, ** $p \leq .01$, *** $p \leq .001$

Table 2.

Regressing Endorsement of the Complainer Stereotype on SDO and Control Variables in Study 1.

	b	*SE*	*t*	*p*	95% CI
Intercept	5.00	0.52	0.96	.34	[-0.54, 1.54]
Gender (0 = women)	3.84	0.25	1.53	.13	[-0.12, 0.88]
Age	-0.02	0.01	-1.58	.12	[-0.05, 0.01]
Political Conservatism	0.28	0.09	3.05	.003	[0.03, 0.16]
SDO	**0.70**	**0.13**	**5.55**	**<.001**	**[0.45, 0.95]**

Note. Bolded row indicates key predictor.

Table 3.

Descriptive Statistics and Inter-Item Correlations of All Variables in Study 2.

	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	*M*	*SD*
1. Condition (0 = Not Confront)	--										0.50	0.50
2. Gender (0 = Women)	.02	--									0.55	0.50
3. Age	-.04	-.21**	--								34.68	10.04
4. Political Conservatism	-.05	.05	.13†	--							3.62	1.76
5. SDO	.12	.18*	-.11	.54***	--						2.42	1.42
6. Complainer Stereotype	.22**	.12	-.15*	.29***	.57***	--					1.99	1.45
7. Victim Blaming	.19**	.12†	-.17*	.35***	.59***	.78***	--				1.98	1.22
8. Character Strength	.51***	-.12†	.08	-.04	-.23**	-.18*	-.19**	--			4.95	1.63
9. Target Credibility	-.02	-.21**	.15*	-.22**	-.49***	-.67***	-.65***	.44***	--		5.88	1.26
10. Target Likability	-.14†	-.17*	.11	-.07	-.36***	-.40***	-.39***	.36***	.57***	--	5.20	1.16

†$p \leq .10$, *$p \leq .05$, ** $p \leq .01$, *** $p \leq .001$

Table 4.

Regressing Endorsement of the Complainer Stereotype on Study Condition, SDO, and Control Variables in Study 2.

		b	*SE*	*t*	*p*	95% CI
Model 1 $R^2 = .12$	Intercept	1.86	0.43	4.28	<.001	[1.00, 2.71]
	Gender (0 = women)	0.18	0.21	0.86	.39	[-0.23, 0.59]
	Age	-0.03	0.01	-2.49	.01	[-0.05, -0.01]
	Political Conservatism	0.26	0.06	4.45	<.001	[0.14, 0.37]
Model 2 $R^2 = .35$	Intercept	2.16	0.40	5.39	<.001	[1.37, 2.95]
	Gender (0 = women)	-0.01	0.18	-0.05	.96	[-0.37, 0.35]
	Age	-0.01	0.01	-1.48	.14	[-0.03, 0.01]
	Political Conservatism	0.02	0.06	0.38	.70	[-0.10, 0.14]
	SDO	**0.53**	**0.08**	**6.99**	**<.001**	**[0.38, 0.68]**
	Condition (0 = not confront)	**0.44**	**0.18**	**2.51**	**.01**	**[0.09, 0.79]**
Model 3 $R^2 = .38$	Intercept	2.28	0.40	5.69	<.001	[1.49, 3.07]
	Gender (0 = women)	-0.04	0.18	-0.24	.81	[-0.40, 0.31]
	Age	0.02	0.01	-1.70	.09	[-0.03, .002]
	Political Conservatism	0.01	0.06	0.14	.89	[-0.11, 0.13]
	SDO	**0.39**	**0.10**	**3.95**	**<.001**	**[0.20, 0.59]**
	Condition (0 = not confront)	**0.44**	**0.17**	**2.53**	**.01**	**[0.10, 0.79]**
	SDO*Condition	**0.27**	**0.13**	**2.16**	**.03**	**[0.02, 0.52]**

Note. Bolded row indicates key predictor.

Table 5.

Conditional Effects of Study Condition on Endorsement of the Complainer Stereotype in Study 2.

SDO	*b*	*SE*	*t*	*p*	95% CI
1 SD Below the Mean	0.06	0.25	0.24	.81	[-0.42, 0.55]
At the Mean	0.44	0.17	2.50	.01	[0.09, 0.78]
1 SD Above the Mean	0.82	0.25	3.29	.001	[0.33, 1.30]

Table 6.

Regressing Perceived Target Character Strength on Study Condition, SDO, and Control Variables in Study 2.

		b	*SE*	*t*	*p*	95% CI
Model 1 R^2 = .02	Intercept	4.90	0.52	9.50	<.001	[3.88, 5.91]
	Gender (0 = women)	-0.34	0.25	-1.39	0.17	[-0.83, 0.14]
	Age	0.01	0.01	0.89	0.38	[-0.01, 0.04]
	Political Conservatism	-0.04	0.07	-0.56	0.57	[-0.17, 0.10]
Model 2 R^2 = .38	Intercept	3.36	0.44	7.64	<.001	[2.49, 4.22]
	Gender (0 = women)	-0.23	0.20	-1.14	0.27	[-0.62, 0.17]
	Age	0.003	0.01	0.35	0.73	[-0.02, 0.02]
	Political Conservatism	0.19	0.07	2.78	0.01	[0.05, 0.32]
	SDO	**-0.45**	**0.08**	**-5.32**	**<.001**	**[-0.61, -0.28]**
	Condition (0 = not confront)	**1.85**	**0.19**	**9.59**	**<.001**	**[1.47, 2.23]**
Model 3 R^2 = .43	Intercept	3.14	0.43	7.32	<.001	[2.29, 3.99]
	Gender (0 = women)	-0.16	0.19	-0.85	.39	[-0.54, 0.22]
	Age	0.01	0.01	0.72	.47	[-0.01, 0.03]
	Political Conservatism	0.21	0.07	3.26	.001	[0.08, 0.34]
	SDO	**-0.19**	**0.11**	**-1.78**	**.08**	**[-0.40, 0.02]**
	Condition (0 = not confront)	**1.86**	**0.19**	**9.93**	**<.001**	**[1.49, 2.22]**
	SDO*Condition	**-0.49**	**0.13**	**-3.69**	**<.001**	**[-0.76, -0.23]**

Note. Bolded row indicates key predictor.

Table 7.

Conditional Effects of SDO on Perceived Target Character Strength in Study 2.

Study Condition	*b*	*SE*	*t*	*p*	95% CI
Not Confront (0)	-0.19	0.11	-1.78	.08	[-0.40, 0.02]
Confront (1)	-0.69	0.10	-6.55	<.001	[-0.89, -0.48]

Table 8.

Regressing Victim Blaming on Study Condition, SDO, and Control Variables in Study 2.

		b	*SE*	*t*	*p*	95% CI
Model 1 $R^2 = .17$	Intercept	1.82	0.36	5.11	<.001	[1.12, 2.52]
	Gender (0 = women)	0.15	0.17	0.91	.37	[-0.18, 0.49]
	Age	-0.03	0.01	-2.89	.004	[-0.04, -0.01]
	Political Conservatism	0.26	0.05	5.41	<.001	[0.16, 0.35]
Model 2 $R^2 = .38$	Intercept	2.10	0.33	6.34	<.001	[1.45, 2.76]
	Gender (0 = women)	0.002	0.15	0.01	.99	[-0.29, 0.30]
	Age	-0.01	0.01	-1.92	.06	[-0.03, 0.00]
	Political Conservatism	0.06	0.05	1.26	.21	[-0.04, 0.16]
	SDO	**0.44**	**0.06**	**6.96**	**<.001**	**[0.32, 0.56]**
	Condition (0 = not confront)	**0.31**	**0.15**	**2.11**	**.04**	**[0.02, 0.60]**
Model 3 $R^2 = .38$	Intercept	2.17	0.33	6.52	<.001	[1.52, 2.83]
	Gender (0 = women)	-0.02	0.15	-0.13	.90	[-0.31, 0.28]
	Age	-0.02	0.01	-2.07	.04	[-0.03, -0.001]
	Political Conservatism	0.05	0.05	1.07	.29	[-0.05, 0.15]
	SDO	**0.35**	**0.08**	**4.27**	**<.001**	**[0.19, 0.52]**
	Condition (0 = not confront)	**0.31**	**0.15**	**2.11**	**.04**	**[0.02, 0.59]**
	SDO*Condition	**0.17**	**0.10**	**1.59**	**.11**	**[-0.04, 0.37]**

Note. Bolded row indicates key predictor.

Table 9.

Conditional Effects of Study Condition on Victim Blaming in Study 2.

SDO	*b*	*SE*	*t*	*p*	95% CI
1 SD Below the Mean	0.07	0.21	0.32	.75	[-0.34, 0.48]
At the Mean	0.31	0.15	2.12	.04	[0.02, 0.60]
1 SD Above the Mean	0.55	0.21	2.66	.008	[0.14, 0.96]

Table 10.

Regressing Perceived Target Credibility on Study Condition, SDO, and Control Variables in Study 2.

		b	*SE*	*t*	*p*	95% CI
Model 1 R^2 = .10	Intercept	6.14	0.40	15.53	<.001	[5.36, 6.92]
	Gender (0 = women)	-0.39	0.19	-2.08	.04	[-0.76, -0.02]
	Age	0.02	0.01	1.84	.07	[-0.001, 0.04]
	Political Conservatism	-0.18	0.05	-3.34	.001	[-0.28, -0.07]
Model 2 R^2 = .26	Intercept	5.63	0.38	14.67	<.001	[4.87, 6.38]
	Gender (0 = women)	-0.24	0.17	-1.38	.17	[-0.58, 0.10]
	Age	0.01	0.01	0.83	.41	[-0.01, 0.02]
	Political Conservatism	0.03	0.06	0.54	.59	[-0.08, 0.15]
	SDO	**-0.46**	**0.07**	**-6.30**	**<.001**	**[-0.60, -0.32]**
	Condition (0 = not confront)	**0.05**	**0.17**	**0.30**	**.77**	**[-0.28, 0.38]**
Model 3 R^2 = .28	Intercept	5.53	0.38	14.38	<.001	[4.77, 6.29]
	Gender (0 = women)	-0.21	0.17	-1.22	.22	[-0.55, 0.13]
	Age	0.01	0.01	1.03	.31	[-0.01, 0.03]
	Political Conservatism	0.04	0.06	0.76	.45	[-0.07, 0.16]
	SDO	**-0.34**	**0.10**	**-3.58**	**<.001**	**[-0.53, -0.15]**
	Condition (0 = not confront)	**0.05**	**0.17**	**0.31**	**.76**	**[-0.28, 0.38]**
	SDO*Condition	**-0.23**	**0.12**	**-1.91**	**.06**	**[-0.47, 0.01]**

Note. Bolded row indicates key predictor.

Table 11.

Regressing Perceived Target Likeability on Study Condition, SDO, and Control Variables in Study 2.

		b	*SE*	*t*	*p*	95% CI
Model 1 $R^2 = .04$	Intercept	5.22	0.36	14.31	<.001	[4.50, 5.93]
	Gender (0 = women)	-0.34	0.17	-1.94	.05	[-0.68, 0.01]
	Age	0.01	0.01	1.13	.26	[-0.01, 0.03]
	Political Conservatism	-0.05	0.05	-0.98	.33	[-0.14, 0.05]
Model 2 $R^2 = .17$	Intercept	4.97	0.36	13.63	<.001	[4.25, 5.68]
	Gender (0 = women)	-0.22	0.16	-1.35	.18	[-0.55, 0.10]
	Age	0.002	0.01	0.26	.79	[-0.01, 0.02]
	Political Conservatism	0.10	0.06	1.83	.07	[-0.01, 0.21]
	SDO	**-0.34**	**0.07**	**-4.86**	**<.001**	**[-0.47, -0.20]**
	Condition (0 = not confront)	**-0.18**	**0.16**	**-1.12**	**.27**	**[-0.50, 0.14]**
Model 3 $R^2 = .17$	Intercept	4.95	0.37	13.44	<.001	[4.23, 5.68]
	Gender (0 = women)	-0.22	0.17	-1.32	.19	[-0.55, 0.11]
	Age	0.002	0.01	0.28	.78	[-0.01, 0.02]
	Political Conservatism	0.10	0.06	1.84	.07	[-0.01, 0.21]
	SDO	**-0.32**	**0.09**	**-3.53**	**.001**	**[-0.50, -0.14]**
	Condition (0 = not confront)	**-0.18**	**0.16**	**-1.11**	**.27**	**[-0.50, 0.14]**
	SDO*Condition	**-0.03**	**0.12**	**-0.24**	**.81**	**[-0.26, 0.20]**

Note. Bolded row indicates key predictor.

Table 12.

Descriptive Statistics and Inter-Item Correlations of All Variables in Study 3.

	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	12.	*M*	*SD*
1. Condition (0 = Self Confront)	--												0.51	0.50
2. Gender (0 = Women)	-.04	--											0.60	0.49
3. Age	-.02	-.10	--										35.12	10.96
4. Political Conservatism	-.05	.14†	.15*	--									3.69	1.88
5. SDO	-.18*	.12†	.001	.58***	--								2.67	1.44
6. Complainer Stereotype	-.17*	.25***	-.22**	.41***	.55***	--							2.48	1.72
7. Victim Blaming	-.15*	.28***	-.20**	.35***	.47***	.81***	--						2.71	1.45
8. Character Strength	.22**	-.33***	.17*	-.30***	-.44***	-.71***	-.64***	--					5.73	1.33
9. Target Credibility	.24***	-.28***	.28***	-.31***	-.47***	-.78***	-.72***	.75***	--				5.42	1.62
10. Target Likability	.24***	-.25***	.12†	-.26***	-.38***	-.67***	-.55***	.68***	.75***	--			4.79	1.34
11. Target Altruism	.30***	-.24***	.18*	-.36***	-.43***	-.66***	-.58***	.69***	.74***	.78***	--		4.39	1.28
12. Was It Discrimination	.24***	-.21**	.17*	-.33***	-.43***	-.68***	-.68***	.67***	.76***	.65***	.68***	--	6.99	2.58

$^{\dagger}p \leq .10$, *$p \leq .05$, ** $p \leq .01$, *** $p \leq .001$

Table 13.

Effects of Study Condition, SDO, and Control Variables on the Endorsement of the Complainer Stereotype, Target Character Strength, Victim Blaming, Victim Credibility, and Target Likeability

	Dependent Variables									
	Complainer Stereotype Endorsement (R^2 = .26)		Target Character Strength (R^2 = .20)		Victim Blaming (R^2 = .23)		Victim Credibility (R^2 = .23)		Target Likeability (R^2 = .13)	
Model 1	*B*	*SE*	*B*	*SE*	*B*	*SE*	*B*	*SE*	*B*	*SE*
Intercept	2.13***	0.43	6.14***	0.35	2.38***	0.38	5.24***	0.42	5.19***	0.37
Gender (Women = 0)	0.56*	0.23	-0.72***	0.19	0.60**	0.20	-0.65**	0.22	-0.56**	0.20
Age	-0.04***	0.01	0.02**	0.01	-0.03***	0.01	0.05***	0.01	0.02†	0.01
Political Conservatism	0.40***	0.06	-0.21***	0.05	0.28***	0.05	-0.28***	0.06	-0.18***	0.05
	Complainer Stereotype Endorsement (R^2 = .40)		Target Character Strength (R^2 = .32)		Victim Blaming (R^2 = .32)		Victim Credibility (R^2 = .35)		Target Likeability (R^2 = .24)	
Model 2	*B*	*SE*	*B*	*SE*	*B*	*SE*	*B*	*SE*	*B*	*SE*
Intercept	1.64***	0.43	6.32***	0.36	2.03***	0.39	5.43***	0.42	5.25***	0.38
Gender (Women = 0)	0.50*	0.21	-0.68***	0.17	0.56**	0.19	-0.60**	0.20	-0.52**	0.18
Age	-0.04***	0.01	0.02*	0.01	-0.03**	0.01	0.04***	0.01	0.01†	0.01
Political Conservatism	0.17*	0.07	-0.06	0.06	0.12†	0.06	-0.10	0.07	-0.05	0.06
SDO	**0.50*****	0.09	**-0.31*****	**0.07**	**0.35*****	**0.08**	**-0.39*****	**0.09**	**-0.27*****	**0.08**
Condition (Self = 0)	**-0.30**	**0.20**	**0.40***	**0.17**	**-0.21**	**0.18**	**0.55****	**0.20**	**0.49****	**0.18**

Note. Bolded rows indicate key predictors.
†*p* ≤ *.10,* **p* ≤ .05, ** *p* ≤.01, *** *p* ≤.001

Table 14.

Effects of Study Condition, SDO, and Control Variables on Target Altruism and Perceptions of the Scenario as Discrimination

	Dependent Variables			
	Target Altruism (R^2 = .21)		Scenario was Discriminatory (R^2 = .18)	
Model 1	*B*	*SE*	*B*	*SE*
Intercept	4.69***	0.34	7.44***	0.69
Gender (Women = 0)	-0.43*	0.18	-0.73*	0.37
Age	0.03***	0.01	0.05**	0.02
Political Conservatism	-0.25***	0.05	-0.47***	-0.47
	Target Altruism (R^2 = .33)		Scenario was Discriminatory (R^2 = .28)	
Model 2	*B*	*SE*	*B*	*SE*
Intercept	4.61***	0.34	7.61***	0.72
Gender (Women = 0)	-0.39*	0.17	-0.65†	0.34
Age	0.02**	0.01	0.04**	0.02
Political Conservatism	-0.15**	0.05	-0.22*	0.11
SDO	**-0.22****	**0.07**	**-0.53*****	**0.15**
Condition (Self = 0)	**0.62*****	**0.16**	**0.09****	**0.34**

Note. Bolded rows indicate key predictors.
†$p \leq .10$, *$p \leq .05$, ** $p \leq .01$, *** $p \leq .001$

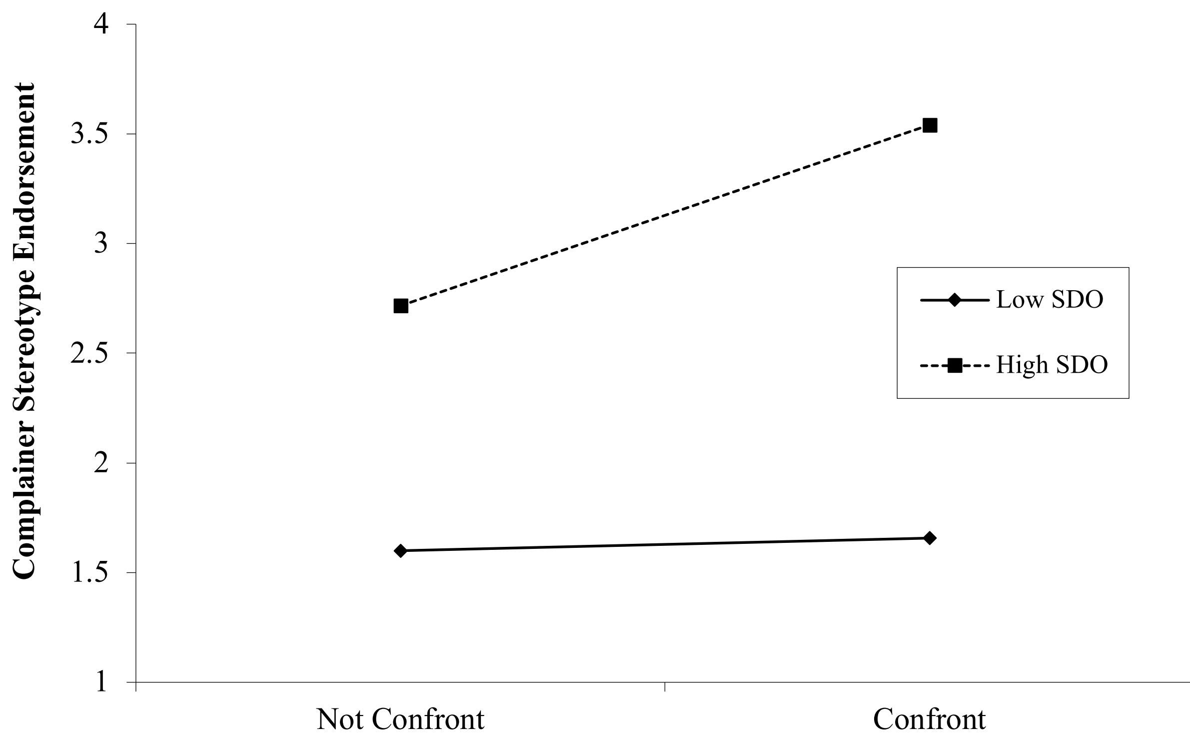

Figure 1. *Interaction between study condition and SDO on participants' endorsement of the complainer stereotype in Study 2.*

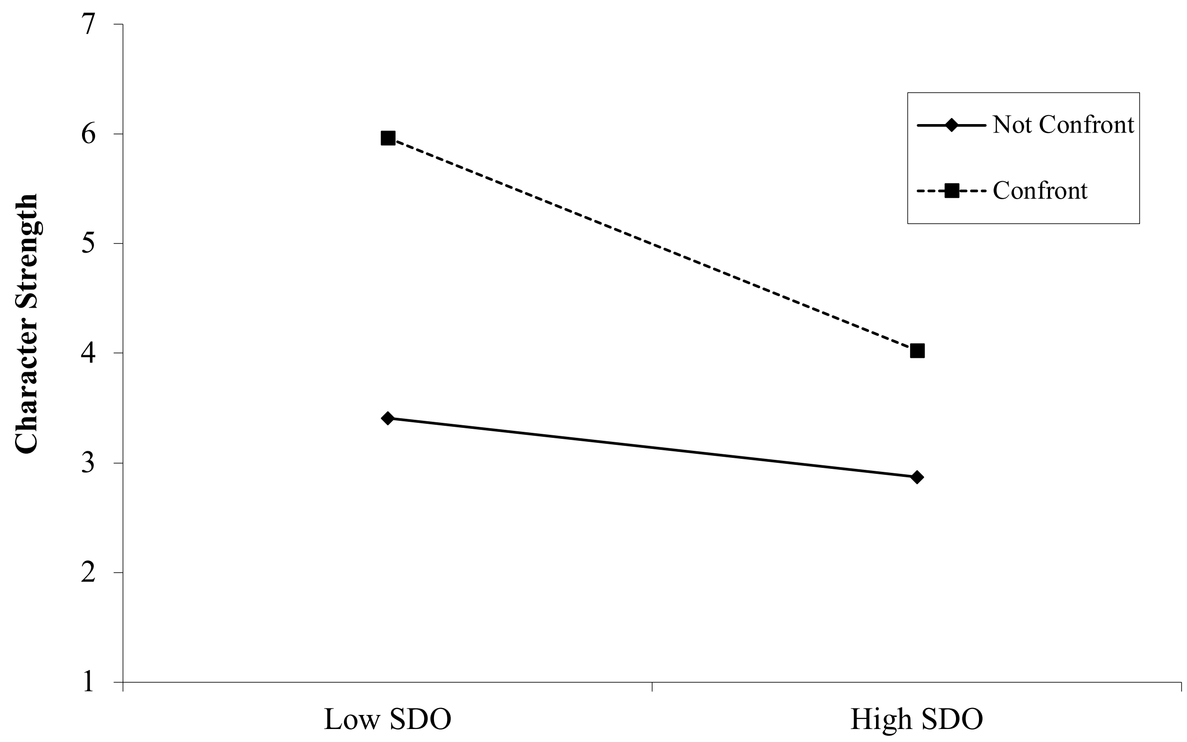

Figure 2. *Interaction between study condition and SDO on participants' perceptions of character strength in Study 2.*

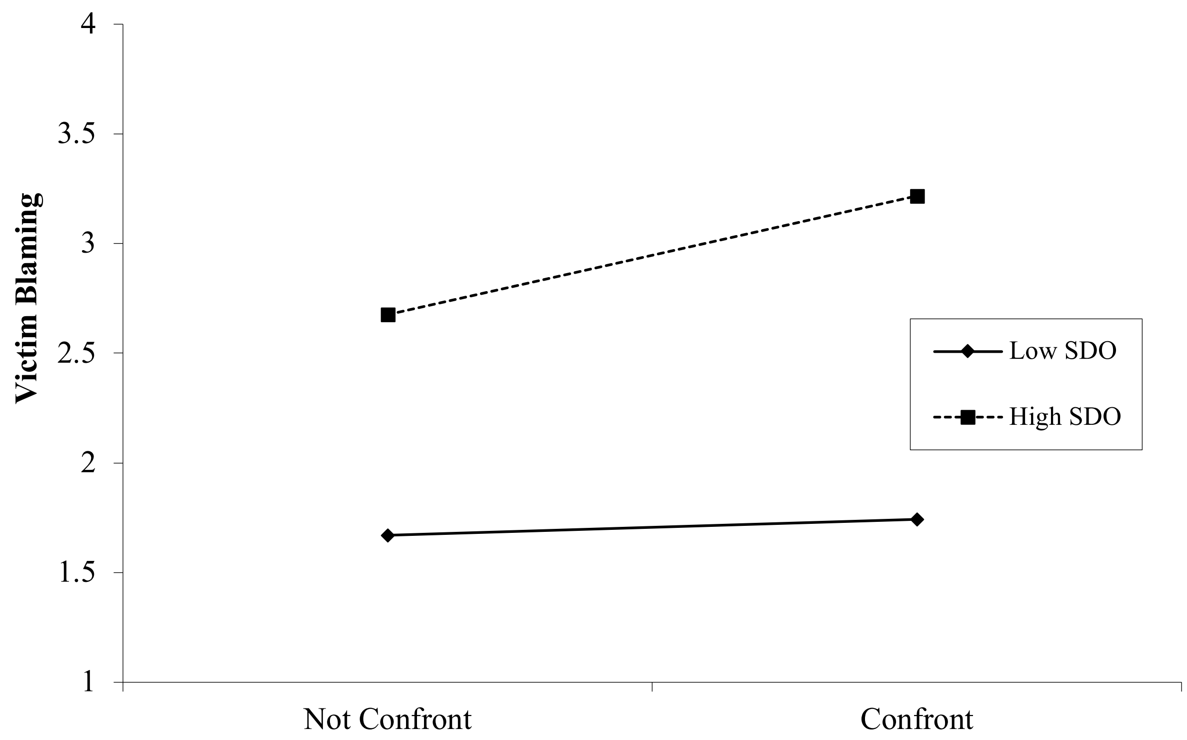

Figure 3. *Interaction between study condition and SDO on participants' levels of victim blaming in Study 2.*

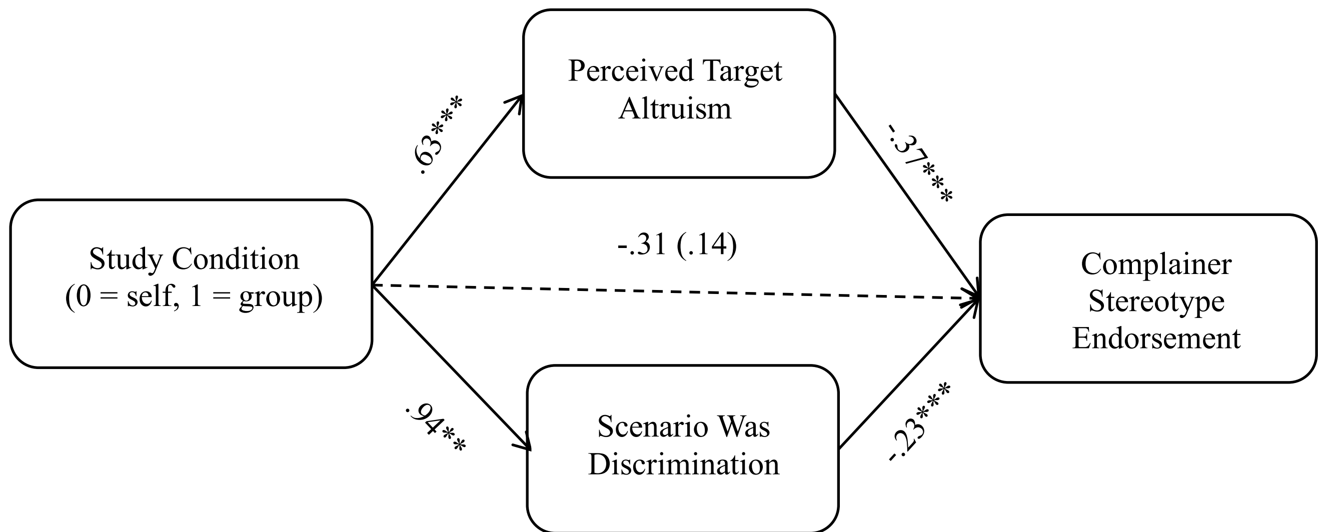

Figure 4. *Regression coefficients for the relationship between study condition and endorsement of the complainer stereotype as mediated by both perceived target altruism and construal of the scenario as discrimination. Participant gender, age, political conservatism, and SDO are covariates.*

* $p \leq .05$. ** $p \leq .01$. *** $p \leq .001$.

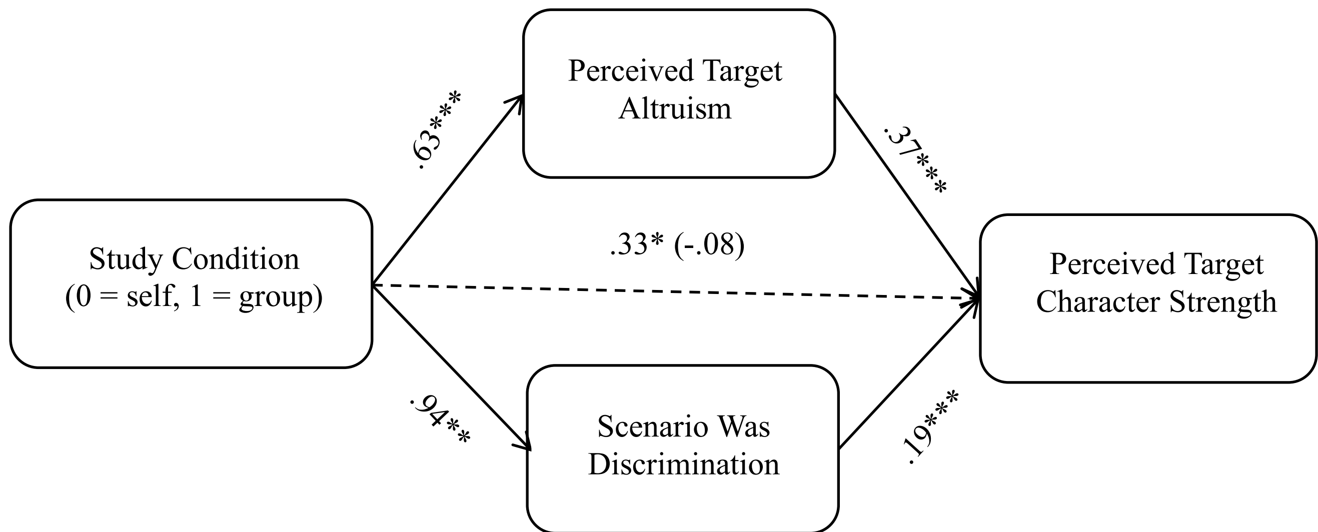

Figure 5. *Regression coefficients for the relationship between study condition and perceived target character strength as mediated by both perceived target altruism and construal of the scenario as discrimination. Participant gender, age, political conservatism, and SDO are covariates.*

* $p \leq .05$. ** $p \leq .01$. *** $p \leq .001$.

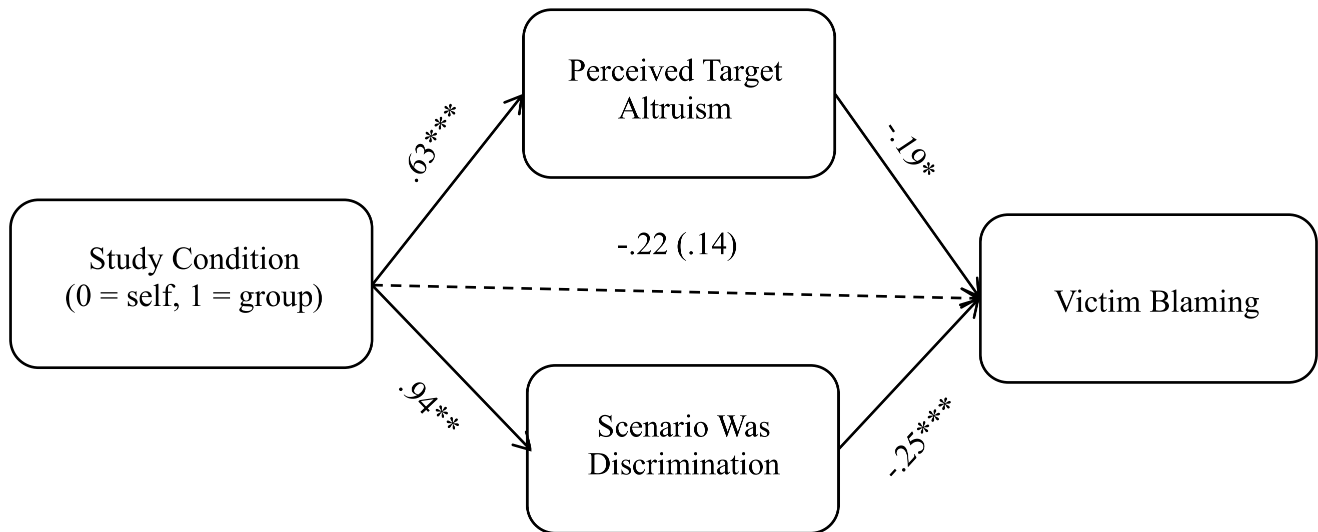

Figure 6. *Regression coefficients for the relationship between study condition and victim blaming as mediated by both perceived target altruism and construal of the scenario as discrimination. Participant gender, age, political conservatism, and SDO are covariates.*

* $p \leq .05$. ** $p \leq .01$. *** $p \leq .001$.

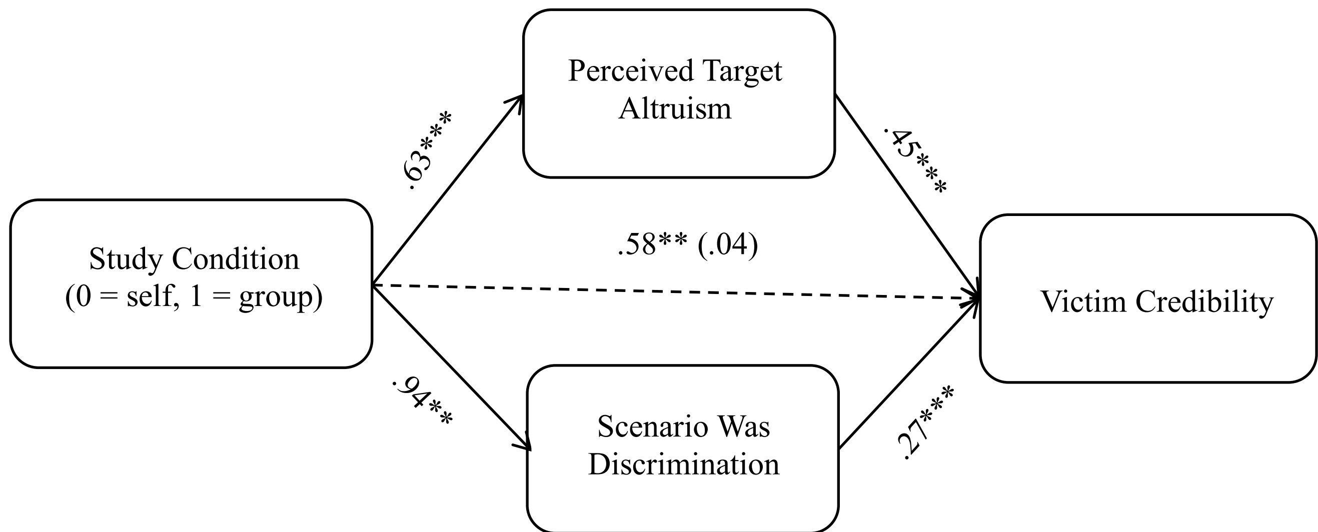

Figure 7. *Regression coefficients for the relationship between study condition and victim credibility as mediated by both perceived target altruism and construal of the scenario as discrimination. Participant gender, age, political conservatism, and SDO are covariates.*

* $p \leq .05$. ** $p \leq .01$. *** $p \leq .001$.

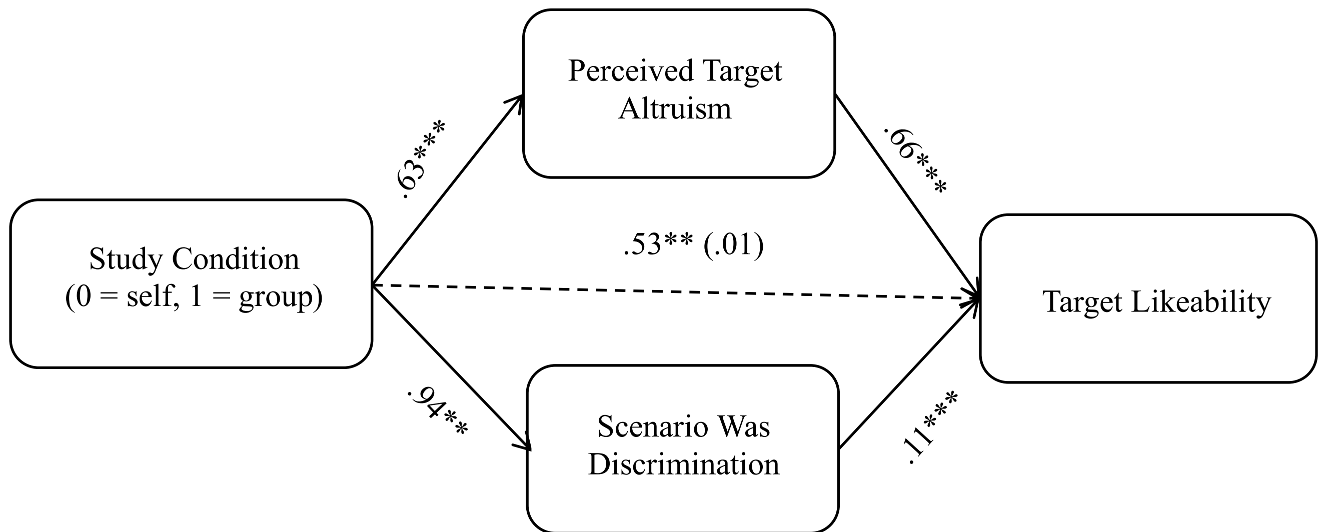

Figure 8. *Regression coefficients for the relationship between study condition and target likeability as mediated by both perceived target altruism and construal of the scenario as discrimination. Participant gender, age, political conservatism, and SDO are covariates.*

* $p \leq .05$. ** $p \leq .01$. *** $p \leq .001$.

Appendix D

INSTRUCTIONS:

Gender discrimination in the workplace is defined as treating someone (an applicant or employee) unfairly because of that person's gender. Examples might include a woman being paid less than a man for the same work, or a woman being passed over for a promotion by a less qualified man.

In recent years, an increasing number of women are claiming to have experienced gender discrimination at work. Some people believe that this rise in gender discrimination claims is beneficial, whereas other people believe that it is harmful. We are interested learning about your opinions about most women who claim having experienced gender discrimination in the workplace.

Endorsement of Complainer Stereotype

In my opinion, most women who claim gender discrimination…

	Strongly Disagree 1	Somewhat Disagree 2	Slightly Disagree 3	Neither Agree Nor Disagree 4	Slightly Agree 5	Somewhat Agree 6	Strongly Agree 7
1. …are complainers.							
2. …are whiny.							
3. …are oversensitive.							
4. …are trying to "play the gender card."							
5. …are "making something out of nothing."							

SDO$_7$ (Ho, et al., 2015)

Show how much you favor or oppose each idea below by selecting a number from 1 to 7 on the scale below. You can work quickly; your first feeling is generally best.

	Strongly Oppose 1	2	3	4	5	6	Strongly Favor 7
1. An ideal society requires some groups to be on top and others to be on the bottom.							
2. Some groups of people are simply inferior to other groups.							
3. No one group should dominate in society.							
4. …Groups at the bottom are just as deserving as groups at the top.							
5. Group equality should not be our primary goal.							
6. It is unjust to try to make groups equal.							
7. We should do what we can to equalize conditions for different groups.							
8. We should work to give all groups an equal chance to succeed.							

Appendix E

INSTRUCTIONS:
You will be asked to read a brief scenario describing interactions between people in a workplace setting. We are interested learning about your opinions about workplace interactions. Please read the scenario carefully and answer the following questions.

Confront Condition:

Workplace Situation Between Sarah (employee) and Scott (her manager)

NextBuy is a successful marketing agency. This agency creates and implements marketing strategies to increase the sales and profits of other companies. Sarah is a Sales Associate at NextBuy. Recently, it was announced that there was an opening in the company for the position of Senior Sales Associate, the position directly above Sarah's current job. Given that she has received favorable annual performance reviews, Sarah applied for the promotion.

Several weeks passed, and Sarah discovered that she was not selected for the promotion. Her manager, named Scott, decided to give the position to a male Sales Associate who was hired less than six months ago and has a bachelor's degree. Sarah has been working at NextBuy for about five years and has a master's degrees. Sarah then decided to take a look at the company website to see who the other Senior Sales Associates were, and she discovered that the majority of them were men.

Sarah has decided to bring up the promotion decision with her manager, Scott. Sarah sets up a meeting with Scott. During the meeting, Sarah tells Scott that giving the promotion to a newer employee with less experience than her because he is a man is gender discrimination. She also tells Scott that she is bringing up the promotion decision because she wants to have a fair shot at being promoted. Lastly, Sarah asks to discuss with Scott ways that the situation can be addressed.

Not Confront Condition:

Workplace Situation Between Sarah (employee) and Scott (her manager)

NextBuy is a successful marketing agency. This agency creates and implements marketing strategies to increase the sales and profits of other companies. Sarah is a Sales Associate at NextBuy. Recently, it was announced that there was an opening in the company for the position of Senior Sales Associate, the position directly above Sarah's current job. Given that she has received favorable annual performance reviews, Sarah applied for the promotion.

Several weeks passed, and Sarah discovered that she was not selected for the promotion. Her manager, named Scott, decided to give the position to a male Sales Associate who was hired less than six months ago and has a bachelor's degree. Sarah has been working at NextBuy for about five years and has a master's degrees. Sarah then decided to take a look at the company website to see who the other Senior Sales Associates were, and she discovered that the majority of them were men.

Sarah has decided not to bring up the promotion decision with her manager, Scott. Sarah feels that Scott giving the promotion to a newer employee with less experience than her because he is a man is gender discrimination. Sarah refrains from bringing this up with Scott, even though she sees that she won't have a fair shot at being promoted, because she doesn't want to "rock the boat".

Victim Blaming
Please indicate how you would characterize Sarah's role in the situation. For each of the following statements, please indicate how much you agree or disagree.

	Strongly Disagree 1	Somewhat Disagree 2	Slightly Disagree 3	Neither Agree Nor Disagree 4	Slightly Agree 5	Somewhat Agree 6	Strongly Agree 7
1. Sarah is to blame in this situation.							
2. Sarah brought the situation on herself.							
3. Sarah could have done something to prevent the situation.							
4. What happened to Sarah was not her fault.							

Target Likeability (adapted from Kaiser & Miller, 2003)
Please mark how much you disagree or agree with each of the following statements.
In my opinion, Sarah...

	Strongly Disagree 1	Somewhat Disagree 2	Slightly Disagree 3	Neither Agree Nor Disagree 4	Slightly Agree 5	Somewhat Agree 6	Strongly Agree 7
1. ...is likeable.							
2. ...has a good personality.							
3. ...is nice to have a conversation with.							
4. ...is easy to get along with.							
5. ...is considerate.							
6. ...is good to have as a friend.							

Target Character Strength
Please mark how much you disagree or agree with each of the following statements.
In my opinion, Sarah...

	Strongly Disagree 1	Somewhat Disagree 2	Slightly Disagree 3	Neither Agree Nor Disagree 4	Slightly Agree 5	Somewhat Agree 6	Strongly Agree 7
1. Sarah is to blame in this situation. 2. Sarah brought the situation on herself. 3. Sarah could have done something to prevent the situation. 4. What happened to Sarah was not her fault.							

Target Credibility (adapted from Mulder & Winiel, 1996).
Please indicate how you would characterize Sarah.

	Strongly Disagree 1	Somewhat Disagree 2	Slightly Disagree 3	Neither Agree Nor Disagree 4	Slightly Agree 5	Somewhat Agree 6	Strongly Agree 7
1. Do you perceive Sarah as credible? 2. Do you get the impression that Sarah is telling the truth? 3. Does Sarah seem reliable?							

Appendix F

INSTRUCTIONS:
You will be asked to read a brief scenario describing interactions between people in a workplace setting. We are interested learning about your opinions about workplace interactions. Please read the scenario carefully and answer the following questions.

Self Confront Condition:

Workplace Situation Between Sarah (employee) and Scott (her manager)

NextBuy is a successful marketing agency. This agency creates and implements marketing strategies to increase the sales and profits of other companies. Sarah is a Sales Associate at NextBuy. Recently, it was announced that there was an opening in the company for the position of Senior Sales Associate, the position directly above Sarah's current job. Given that she has received favorable annual performance reviews, Sarah applied for the promotion.

Several weeks passed, and Sarah discovered that she was not selected for the promotion. Her manager, named Scott, decided to give the position to a male Sales Associate who was hired less than six months ago and has a bachelor's degree. Sarah has been working at NextBuy for about five years and has a master's degrees. Sarah then decided to take a look at the company website to see who the other Senior Sales Associates were, and she discovered that the majority of them were men.

Sarah has decided to bring up the promotion decision with her manager, Scott. Sarah sets up a meeting with Scott. During the meeting, Sarah tells Scott that giving the promotion to a newer employee with less experience than her because he is a man is gender discrimination. She also tells Scott that she is bringing up the promotion decision because she wants to have a fair shot at being promoted. Lastly, Sarah asks to discuss with Scott ways that the situation can be addressed.

Group Confront Condition:

Workplace Situation Between Sarah (employee) and Scott (her manager)

NextBuy is a successful marketing agency. This agency creates and implements marketing strategies to increase the sales and profits of other companies. Sarah is a Sales Associate at NextBuy. Recently, it was announced that there was an opening in the company for the position of Senior Sales Associate, the position directly above Sarah's current job. Given that she has received favorable annual performance reviews, Sarah applied for the promotion.

Several weeks passed, and Sarah discovered that she was not selected for the promotion. Her manager, named Scott, decided to give the position to a male Sales Associate who was hired less than six months ago and has a bachelor's degree. Sarah has been working at NextBuy for about five years and has a master's degrees. Sarah then decided to take a look at the company website to see who the other Senior Sales Associates were, and she discovered that the majority of them were men.

Sarah has decided to bring up the promotion decision with her manager, Scott. Sarah sets up a meeting with Scott. During the meeting, Sarah tells Scott that giving the promotion to a newer employee with less experience than her because he is a man is gender discrimination. She also tells Scott that she is bringing up the promotion decision on behalf of all the women at NextBuy, including herself, because she wants women to have a fair shot at being promoted. Lastly, Sarah asks to discuss with Scott ways that the situation can be addressed.

Victim Blaming (revised from Study 2)

Please indicate how you would characterize Sarah's role in the promotion decision. For each of the following statements, please indicate how much you agree or disagree.

	Strongly Disagree 1	Somewhat Disagree 2	Slightly Disagree 3	Neither Agree Nor Disagree 4	Slightly Agree 5	Somewhat Agree 6	Strongly Agree 7
1. Sarah is to blame for not getting the promotion.							
2. Sarah brought the situation (i.e., not being promoted) on herself.							
3. Sarah could have done something differently to get the promotion.							
4. Sarah being passed over for the promotion was not her fault.*							

Target Credibility (revised from Study 2)

Please indicate how you would characterize Sarah.

	No, Not At All 1	2	3	Somewhat 4	5	6	Yes, Absolutely 7
1. Do you perceive Sarah as credible in her account of the promotion decision?							
2. Do you get the impression that Sarah truthful in her account of the promotion decision?							

Altruism

Please mark how much you disagree or agree with each of the following statements.

In my opinion, Sarah...

	Strongly Disagree 1	Somewhat Disagree 2	Slightly Disagree 3	Neither Agree Nor Disagree 4	Slightly Agree 5	Somewhat Agree 6	Strongly Agree 7
1. ...truly cares about others.							
2. ...is altruistic.							
3. ...is selfless.							
4. ...is selfish.*							
5. ...cares mostly about herself.*							

Construal of the Scenario as Discriminatory

In your opinion, does Sarah not getting the promotion constitute gender discrimination at NextBuy?

No, Definitely WAS NOT Yes, Definitely WAS

Gender Discrimination (1) (2) (3) (4) (5) (6) (7) (8) (9) (10) Gender Discrimination

Paper 3

Gender discrimination, perceived school unfairness, depression and sleep duration among middle school girls[3]

[3] Bell, A. N., & Juvonen, J. (invited revision). *Child Development*.
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Abstract

The current study examines how gender discrimination by adults in school is linked with depressive symptoms, as well as sleep duration, over time in middle school. The main goal is to test one psychological mechanism that can account for such an association: perceived school unfairness. Relying on an ethnically diverse sample of girls ($N = 2,718$, $M_{age} = 13.01$, $SD_{age} = 0.39$) from 26 middle schools, multilevel mediation analyses reveal that girls who experienced any school-based gender discrimination by an adult in seventh grade reported higher levels of perceived school unfairness in eighth grade. Moreover, perceived unfairness, in turn, was associated with more depressive symptoms and lower sleep duration by eighth grade. Implications for schools to address gender discrimination are discussed.

Gender Discrimination, Perceived School Unfairness, Depressive Symptoms and Sleep Duration among Middle School Girls

Experiences of discrimination based on salient social identities, such as gender and ethnicity, are harmful and likely incur developmental "costs" during adolescence, including worse mental and physical health, academic outcomes, and social adjustment (Benner et al., 2018; Brody et al., 2006; Bryant, 1993; Williams & Mohammed, 2009). Theories addressing the associations between discrimination and health outcomes, such as the ecosocial model (Krieger, 2012) and minority stress model (Meyer, 2003) posit that discrimination is itself inherently stressful, resulting in physiological changes that can lead to health disparities between societally advantaged and disadvantaged groups, perpetuating social inequalities (e.g., Harrell, Hall, & Taliaferro, 2003). Surprisingly few studies have examined other possible underlying mechanisms besides stress that can help account for associations between discrimination and health across the lifespan, and in particular, during adolescence. The current study examines how gender discrimination by adults (i.e., authority figures) at school can increase girls' perceptions of school as unfair, and therefore help explain associations between discrimination and depressive symptoms, and possibly also sleep. We focus on girls because they are historically more discriminated group and more likely to continue to be experiencing gender-related mistreatment later in life. Furthermore, starting in early adolescence, girls are also more likely to experience depression and insomnia than boys (e.g., Nolen-Hoeksema & Girgus, 1994).

By early adolescence (Brown & Bigler, 2005), youth are knowledgeable about group-based stereotypes (Bigler & Liben, 2007), capable of identifying unfair treatment based on social identities (Killen, Lee-Kim, McGlothlin, & Stangor, 2002), and aware of others' discriminatory intentions—hence demonstrating adequate cognitive capacity to appropriately identify and label

events as biased treatment (Brown & Bigler, 2004). Given the onset of puberty, shifts to increasingly socialize with other-gender peers, and intensification of social pressure to conform to traditional gender roles during this developmental stage (e.g., Connolly, Craig, Goldberg, & Pepler, 2004; Hill & Lynch, 1983; Maccoby & Jacklin, 1987), gender becomes a prominent and salient social identity. Accompanying these biological and interpersonal changes, an important gender difference emerges: girls become significantly more susceptible to depression than boys around the onset of puberty, and this disparity persists throughout the lifespan (Nolen-Hoeksema & Girgus, 1994; Salk, Hyde, & Abramson, 2017). Similarly, research suggests that the onset of puberty (menarche) marks the beginning of gender disparities in insomnia, with girls being more susceptible than boys (Johnson, Roth, Schultz, & Breslau, 2006)—a gender difference that also extends into adulthood (Zhang & Wing, 2006). We therefore choose to examine both depression and sleep in the current study. Although less studied than depression in adolescence, sleep is especially important during periods of rapid brain development in early adolescence (Dahl & Lewin, 2002) and critical for concentration and academic performance (Curcio, Ferrara, & Gennaro, 2006).

While a combination biological, psychological, and socio-cultural factors shape gender differences in the development of depression, exposure and responses to social stressors are likely to play an important role. Although gender discrimination can be experienced by youth of any gender (i.e., girls, boys, transgender and/or gender non-conforming adolescents), girls commonly report such experiences (AAUW, 2001; Leaper & Brown, 2008). One in four girls interested in STEM fields in high school report sexist treatment by teachers (Robnett, 2015), and school teachers often rate the boys in their classes as being naturally smarter and higher achieving in STEM classes than girls, even though girls generally outperform boys academically

in these courses (for a review, see: Brown & Stone, 2016). Moreover, biased treatment continues into adulthood. Research among adults shows not only that sexist treatment is more frequent among women compared to men (Schmitt, Branscombe, Kobrynowicz, & Owen, 2002), but also that such mistreatment helps account for well-documented gender differences in mental health symptoms, such as depression (Klonoff, Landrine, & Campbell, 2000). Given the relation between chronic social stressors and depression (Shih, Eberhart, Hammen, & Brennan, 2006) the evidence showing how stressors interfere with sleep (for a review, see: Bartel, Gradisar, & Williamson, 2015), it is important to examine whether gender discrimination experienced by girls is linked with depression and lack of sleep as early as in middle school.

In the current study we examine girls' experiences of gender-based mistreatment by adults in school (e.g., being treated disrespectfully, or as though they were not smart). Leaper and Brown (2008) found that 23% of 12-18 year old girls reported having received discouraging comments from teachers or coaches about their academic or athletic performance, respectively. We presume girls are less prepared to cope with biased treatment by authority figures and vulnerable to developing depressive symptoms (Salk et al., 2017) in middle school compared to later in life. Because teachers and other adults at school function as important sources of support during early adolescence (for a review, see: Eccles & Roeser, 2011), disruptions to trust and social bonds (e.g., due to discrimination) are likely to adversely affect girls' adjustment. Moreover, adults at school have power over students in ways that make such experiences particularly challenging. After all, students are a "captive audience" and cannot easily avoid contact with discriminatory teachers or staff. Although we expect that gender discrimination by adults is relatively rare, much like other forms of identity-based mistreatment in middle school

(Andrews et al., 2018; Brown, Bigler, & Chu, 2010; Niwa, Way, & Hughes, 2014), it can nevertheless be associated with potent responses.

As young adolescents are increasingly concerned with others' evaluations of them (e.g., Spencer, Dupree, & Hartmann, 1997), they are likely to be sensitive to the effects of biased treatment based on their gender. In fact, meta-analyses suggest that links between various types of discriminatory experiences and poorer health are more robust among youth compared to adults (Schmitt, Branscombe, Postmes, & Garcia, 2014). Research on adolescent experiences of racial-ethnic discrimination have been linked to increased depression (e.g., Umaña-Taylor & Updegraff, 2007) and more recently also to disruptions in sleep (Majeno, Tsai, Huynh, McCreath, & Fuligni, 2018; Slopen, Lewis, & Williams, 2016). Youth who report more racial-ethnic discrimination show higher levels of daily stress and poorer sleep quality, which are associated with more internalizing symptoms (Zeiders, 2017). Also, adolescents who report racial-ethnic discrimination and less sleep show poorer psychological adjustment over time (Dunbar, Mirpuri, & Yip, 2017; El-Sheikh, Tu, Saini, Fuller-Rowell, & Buckhalt, 2016; Yip, 2015). Given that gender is a highly salient social identity during adolescence (Deaux & LaFrance, 1998; Maccoby, 1988), it is reasonable to expect that experiences of gender and racial-ethnic discrimination have similar costs to adolescent adjustment, such that girls who report gender discrimination by adults in middle school likely experience increased depressive symptoms and compromised sleep.

Recent research examining links between racial-ethnic discrimination and depression has identified avoidant coping strategies (Seaton, Upton, Gilbert, & Volpe, 2014) ethnic identity (for some racial-ethnic groups; Brittian, et al., 2015; Yip, Wang, Mootoo, & Mirpuri, 2019) as important individual differences that help account for associations between discrimination and

depression. Less is known about factors related to the school environment that moderate or mediate discrimination-adjustment links. In a study by Huynh and Gillen-O'Neel (2016), the findings show that the links between racial-ethnic discrimination, perceived stress, and poorer sleep quality are attenuated when students have a strong sense of school belonging. In addition, Majeno and colleagues (2018) find that, accounting for generalized distress, the association between racial-ethnic or any other type of identity-based discrimination and poorer sleep quality is mediated by feelings of loneliness. While most of these studies are cross-sectional, the findings suggest that other school-related psychological processes beyond stress may help account for disparities in health associated with experiences of gender discrimination. We are particularly interested in the role of adolescents' perceptions of their school environments in helping account for the associations between gender discrimination and sleep disturbances as well as depression.

Guided by adolescent research on racial-ethnic discrimination (Benner & Graham, 2011), the current study focuses on how gender discrimination by adults in middle school may influence girls' perceptions of their school environment. We focus here specifically on how gender discrimination is associated with beliefs that the school itself is an unjust system. We choose to examine school unfairness based on relevant research with adults and adolescents. In adulthood, both gender and racial discrimination experiences are associated with increased perceptions of organizational unfairness in the workplace (Foley, Kidder, & Powell, 2002; Foley, Hang-Yue, & Wong, 2005). While yet to be examined in the context of gender discrimination among adolescents, there is evidence that racial-ethnic discrimination increases perceptions of school unfairness in high school (Benner & Graham, 2011). We presume that biased treatment by adults in school constitutes a breach of the social contract because authority figures are presumed

to be fair, as they (implicitly or explicitly) communicate the school rules to students. If girls then attribute mistreatment from teachers to gender discrimination, they are likely to question the fairness of the institution. Moreover, just as perceived organizational unfairness predicts worse health among adults (Robbins, Ford, & Tetrick, 2011), perceived school unfairness is associated with worse psychosocial adjustment among adolescents (e.g., depression, delinquency) (Brière, Pascal, Dupéré, & Janosz, 2013; Bryk & Thum, 1989; Gottfredson, Gottfredson, Payne, & Gottfredson, 2005). Thus, the question then is whether gender discrimination by adults in school promotes a belief that one's school is itself unfair, and whether such perceptions are then likely to increase depressive symptoms and possibly also compromise sleep.

Current Study and Hypotheses

Two primary goals guide the present study. First, we examine whether gender discrimination by adults in school (hereafter referred to gender discrimination in short) is associated with increased school unfairness, greater depressive symptoms, and lower sleep duration among girls over the course of middle school. Second, we test an indirect effect of gender discrimination on depressive symptoms and sleep by taking into account perceptions of school unfairness. We hypothesize that girls who report experiencing any gender discrimination from adults (e.g., disrespectful treatment, unfair discipline or grades) will perceive school as significantly more unfair (compared to those who report no discrimination). Moreover, we expect perceptions of school unfairness to predict greater depressive symptoms and shorter sleep duration across middle school. While sleep disturbances can be a precursor to worse mental health (e.g., Yip, 2015), sleep disturbances can also be a consequence of depression (Patten, Choi, Gillin, & Pierce, 2000). As such, we examine both sleep and depressive symptoms as concurrent outcomes of gender discrimination.

To test our hypotheses, we rely on longitudinal data across three years of middle school. Perceived school fairness, depression and sleep are assessed each year starting at sixth grade, whereas gender discrimination is assessed for the first time in seventh grade. Predicting eighth grade outcomes, while controlling for their baseline at sixth grade, enables us then to examine changes in perceptions of school fairness, depressive symptoms, and sleep across middle school. Given that we want to test whether earlier experiences of gender discrimination are related to changes in perceived school unfairness, depression, and sleep, we use seventh grade assessment of gender discrimination.

Extending prior research on gender discrimination during adolescence that has relied on samples of largely White girls (with exceptions such as Brown & Leaper, 2010; Brown, et al., 2010), our large middle school sample is ethnically diverse. Because girls of color likely experience mistreatment due to both their ethnicity and gender (e.g., Crenshaw, 1997; Levin, Sinclair, Veniegas, & Taylor, 2002), we include test for ethnic differences in gender discrimination (as well as test the robustness of the findings by including racial discrimination in supplementary analyses). Given that Black girls are disproportionately subjected to harsh school discipline practices relative to their peers of other ethnic groups (Wun, 2016), we expect that Black girls will view their schools as especially unfair. Lastly, based on prior work demonstrating racial-ethnic differences in adolescent sleep, with White youth being more likely to attain sufficient sleep than youth of color (Guglielmo, Gazmararian, Chung, Rogers, & Hale, 2018; Hoyt et al., 2018), we explore relations between race-ethnicity and sleep duration.

Methods

Participants

Participants were sixth graders followed until eighth grade as part of the ongoing, longitudinal Middle School Diversity Project, located in large urban middle schools throughout California. The initial sample of 5,991 (53% girls) adolescents was 31% Latinx, 20% White, 14% multiethnic, 13% East/Southeast Asian, 12% Black, and 10% from other ethnic groups, recruited from 26 ethnically diverse public middle schools. Only girls (n = 2,718, M_{age} = 13.01, SD_{age} = 0.39) were selected for the current study: 35% of whom self-identified as Latina, 12% as Black, 15% as East/Southeast Asian, 20% as White, and 18% as multiethnic. The current analyses relied on data collected in the sixth (baseline), seventh (gender discrimination), and eighth grades (outcomes). Schools varied systematically in their racial-ethnic diversity as measured by Simpson's Index of Diversity (0 = no diversity, 1 = high diversity), ranging from 0.48 to 0.77 (M = 0.64, SD = 0.08). Schools were selected based on their racial-ethnic composition, such that each major pan-ethnic group was represented as (1) a numerical minority group, (2) one of two balanced groups, (3) a numerical majority group, and (4) one of many diverse groups across schools. The percentages of students that were eligible for free or reduced-price lunch at school ranged from approximately 18% to 86%, (M = 47%, SD = 18%), suggesting also substantial socio-economic variability across schools.

Procedure

The study received relevant Institutional Review Board review and associated school districts review. Each eligible student at the 26 schools in the sixth grade, and their families, received informational letters and informed consent. In an effort to incentivize returning parental consent forms, two $50 gift cards were raffled at each school for students who returned the consent form (regardless of whether or not the parents consented for their child to participate). Across the schools, 81% of the recruited parents consented to allow their children to participate.

Among those students who participated in the study, two iPods were raffled as a prize. In addition, students received $5 compensation in the spring of sixth grade, and $10 in the spring of seventh and eighth grades. Data were collected in classroom settings over one class period. Trained researchers read the surveys aloud in each classroom to the students, as students recorded their responses on either paper surveys or electronically on an iPad (for a cohort of eighth graders).

Measures

All measures are reported in full in Appendix G.

Outcomes.

School Unfairness. Perceived school unfairness (i.e., belief that the school rules are unfair) was assessed during Spring of sixth and eighth grades using five items adapted from the Effective School Battery (ESB; Gottfredon, 1986) on a 5-point scale, ranging from 1 (*for sure, yes!*) to 5 (*no way!*). Participants reported the extent to which they believed the school rules are fair, the school rules are too strict, everyone knows the school rules, the punishment for rule breaking is the same for everyone, and students get in trouble for breaking small rules. Sample items included, "The school rules are fair," and "The punishment for breaking school rules is the same no matter who you are," (reverse coded). An average across the five items was computed, with higher values indicating more unfairness (α_{6th} = .65; α_{8th} = .65).

Sleep Duration. Sleep duration was estimated based on student reports of what time they go to bed and wake up in the morning on a typical school day during Spring of sixth and eighth grades, as used in other work on adolescent samples (e.g., Yip, 2015). The time elapsed between each participant's sleep and wake time was calculated to capture average sleep duration on a school night.

Depressive Symptoms. Depressive symptoms were measured during Fall of sixth and Spring of eighth grades using an adapted version of the age-appropriate Center for Epidemiologic Studies Depression Scale (Radloff, 1977). Students were asked to report how often they experienced each of the seven symptoms (e.g., "feeling sad" and "feeling depressed") during the week prior to answering the questionnaire, ranging from 1 (*not at all*) to 5 (*all of the time*) (α_{6th}=.80; α_{8th}=.86). One item of the depressive symptoms scale related to experiencing "restless sleep." Given potential overlap between this item and our measure of sleep duration (r = -.11, $p < .001$), analyses were conducted both with and without the "restless sleep" item included in the scale, and results were consistent both ways. Thus, the full scale was employed.

Primary Predictors.

Gender Discrimination. Gender discrimination was measured during Spring of seventh grade using four items adapted from the Adolescent Discrimination Distress Index (Fisher, Wallace, & Fenton, 2000). Because seventh grade was our first assessment of gender discrimination within the larger longitudinal project, we were unable to include sixth grade baseline levels of gender discrimination as a control variable. Participants were asked how often since the beginning of middle school that they had experienced unfair discipline, lower grades than deserved, being treated disrespectfully or as though they were not smart on the basis of their gender by adults at school. The 5-point response scale, ranging from 1 (*never*) to 5 (*a whole lot*). The values across the four items were averaged, (α = .78). In line with prior work (Leaper & Brown, 2008), girls reported gender discrimination relatively infrequently (M = 1.10, SD = 0.30, $Skew$ = 5.56, SE_{Skew} = 0.05). Due to the skewness of the data, we dichotomized student responses (0 = no discrimination, 1 = at least one discrimination incident).

Racial-Ethnic Identification. Given our interest in identifying potential racial-ethnic differences in our study outcomes, race-ethnicity from Spring of sixth grade was used as a predictor for the present analyses, and students could select one or more of 13 different racial and ethnic categories. Dummy codes capturing four of the pan-ethnic groups (Black, Asian, White, and multiethnic) were created, with Latina students serving as the (largest) reference group.

Covariates.

Individual-Level Covariates. Racial-ethnic discrimination was similarly measured during Spring of seventh grade using four items adapted from the Adolescent Discrimination Distress Index (Fisher, et al., 2000) identical to our measure of gender discrimination, except that items measured mistreatment by teachers was due to their race/ethnicity. The values across the four items were averaged, ($\alpha = .82$). Because racial-ethnic discrimination was similarly relatively infrequent ($M = 1.23$, $SD = 0.47$, $Skew = 3.44$, $SE_{Skew} = 0.05$), we dichotomized student responses (0 = no discrimination, 1 = at least one discrimination incident). GPA from Spring of sixth grade was calculated using transcripts provided by the schools in the sample and included initially as a control variable. Grades for all courses were coded on a 5-point scale (A = 4 and F = 0) and then averaged to create a composite GPA for each student ($M = 3.18$, $SD = 0.79$). Parental education level from Fall of sixth grade was used assess students' SES, including the following groups: some high school or less (20%), high school diploma or GED (13%), some college (30%), four-year college degree (20%), and graduate degree (17%).

School-Level Covariates. The proportion of students eligible for free and reduced-price lunch at each school was used as an indicator of the overall SES of students in a given school, ranging from 18% to 86% of eligible students, ($M = 48\%$, $SD = 18\%$). Student racial-ethnic

diversity and teacher racial-ethnic diversity from sixth grade was calculated using data from the California Department of Education to compute Simpson's index (1949).

$$D_{\mathrm{C}} = 1 - \sum_{i=1}^{g} p_i^2$$

We calculated D_{C} (diversity) by summing the squared proportion of sixth graders in a given school who belong to a specific ethnic group (*p*), and then subtracting this squared proportion from 1. The resulting value, ranging from 0 (homogeneous) to 1 (heterogeneous), indicated the probability that two students (or teachers, respectively) randomly selected in a school would be members of different racial-ethnic groups. Student racial-ethnic diversity ranged from 0.48 to 0.77, (M = 0.64, SD = 0.08), and teacher racial-ethnic diversity ranged from 0.20 to 0.75, (M = 0.54, SD = 0.15).

Analytic Approach

All analyses were conducted using multilevel modeling in Mplus 8.0 (Muthén & Muthén, 1998-2018), to account for the nested structure of the data including students nested in 26 schools. Random intercepts were included in the regression equations of all models. Continuous predictors were grand mean centered. All models controlled for ethnic differences. Models were fit both with and without covariates (i.e., racial-ethnic discrimination, GPA, SES, student racial-ethnic diversity, teacher racial-ethnic diversity, proportion students eligible for free or reduced-price lunch at school). Because results largely did not differ, these covariates were removed for parsimony.

Our measures of school unfairness (both grades), and depressive symptoms (eighth grade), were a part of a planned missing design to reduce the survey burden on students and increase efficiency (Graham, Taylor, Olchowski, & Cumsille, 2006). Based on this design,

participants completed approximately 75% of all the measures included in the study, while the remaining 25% of measures were completed by two-thirds of randomly selected respondents. The likelihood of receiving the measures of school unfairness and depressive symptoms was thus determined at random. Outside the survey design, other missing data from predictor variables was low (≤13%) and because there was no evidence that missing data was systematically related to the individual constructs, the data were considered to be missing at random (MAR; Enders & Bandalos, 2001). Full information maximum likelihood (FIML) with robust standard errors was used to address missing data and account for any non-normality of the data. FIML is superior to listwise deletion (Little, Jorgensen, Lang, & Moore, 2014), as it treats all observed predictors as single-item latent variables, allowing any participant with at least one wave of data to be included.

First, the most parsimonious model with the fewest covariates was tested (namely, baseline outcomes and student race-ethnicity), followed by sensitivity analyses that included all study covariates. Because the addition of covariates did not change the study findings, the most parsimonious model was retained.

Results

Correlates of Gender Discrimination

Descriptive statistics of the measures and inter-item correlations are reported in Table 1. Of note, depressive symptoms and sleep duration were negatively correlated (r_{6th} = -.16, r_{8th} = -.28, *p*s < .001). About 17% of girls reported at least one incident of gender discrimination by adults. To test if reports of gender discrimination varied by ethnic group, a chi-square test was conducted. No differences by participant ethnicity were obtained, $\chi^2(4) = 7.15$, $p = .14$. Approximately 13% of Asian, 16% of Latina, 17% of Black, 17% of White, and 20% of

multiethnic girls in the sample reported at least one incident of gender discrimination, respectively. As expected, gender discrimination in seventh grade was associated with higher perceived school unfairness, shorter sleep duration, and more depressive symptoms in eighth grade (see Table 1).

Multilevel Models

In our analyses, students (Level 1) are nested within schools (Level 2). Intraclass Correlation Coefficients (ICCs) are an indicator of the extent to which differences in outcomes can be attributed to similarity among participants at Level 1 nested within Level 2. All ICCs were small and similar across dependent variables, $ICC_{SchoolUnfair} = .07$, $ICC_{Sleep} = .01$, $ICC_{Depress} = .01$, such that the majority of the variance in the outcome variables could be attributed to differences between individuals rather than across schools, as expected. In addition, the ICC for our primary predictor, gender discrimination (as a continuous variable), was also calculated and was similarly small, $ICC_{Discrim} = .02$, such that approximately 2% of the variance in gender discrimination could be attributed to schools rather than individuals.

Deviance Change Tests for Addition of Random Slopes. Deviance change tests did not indicate an improved model fit with the inclusion of a random slopes for the effects of gender discrimination on perceived school unfairness, χ^2 (2) = 1.36, $p = .51$, depressive symptoms, χ^2 (2) = .01, $p = .95$, and sleep duration, χ^2 (2) = 0.52, $p = .77$, which suggests that the effect of gender discrimination on these outcomes did not vary as a function of students' schools.

Direct Effects of Gender Discrimination. As hypothesized, controlling for prior perceived school unfairness in sixth grade (Table 2), girls who reported any gender discrimination (compared to those who reported none) in seventh grade perceived their school to be significantly more unfair in eighth grade, $b = 0.21$, $p < .001$. Ethnic differences in perceived

school unfairness were observed. Rotation of the reference group for ethnicity revealed that Black girls reported significantly higher levels of school unfairness compared to Asian, $b = -0.31$, $p < .001$, Latina, $b = -0.14$, $p = .003$, multiethnic, $b = -0.10$, $p = .02$, and White, $b = -0.19$, $p < .001$, girls. Asian girls reported significantly lower levels of school unfairness compared to Latina, $b = 0.18$, $p = .001$, multiethnic, $b = 0.21$, $p < .001$, and White, $b = 0.13$, $p = .01$, girls.

Controlling for prior sleep duration in sixth grade (Baseline DV, Table 2), girls who reported any gender discrimination (compared to those who reported none) in seventh grade reported significantly lower sleep duration in eighth grade, $b = -0.18$, $p <.001$, as hypothesized. Ethnic differences in sleep were also observed. Black girls reported significantly lower sleep duration than Asian, $b = 0.18$, $p = .02$, and Latina girls, $b = 0.23$, $p = .006$. Multiethnic girls reported significantly lower sleep duration than Latina girls, $b = -0.18$, $p < .001$. To gauge the magnitude of the effect, analyses were also conducted using gender discrimination as a continuous predictor of sleep duration. Holding covariates constant at the grand mean, we observed that a one-unit increase in our five-point gender discrimination scale was associated with approximately 11 minutes less of sleep.

Controlling for prior depressive symptoms in sixth grade (Baseline DV, Table 2), girls who reported at least one incident of gender discrimination in seventh grade reported significantly more depressive symptoms in eighth grade, $b = 0.30$, $p<.001$, as hypothesized. The only ethnic difference in depressive symptoms observed was that White girls reported significantly fewer depressive symptoms, $b = 0.10$, $p = .01$, compared to multiethnic girls.

Indirect Effects of Gender Discrimination on Depressive Symptoms and Sleep Duration. To test whether there were indirect effects of gender discrimination on depressive symptoms and sleep via perceptions of school unfairness, we conducted multi-level mediation in

Mplus. Gender discrimination in seventh grade was entered as the primary predictor, perceived school unfairness in eighth grade as the mediator, and sleep duration and depressive symptoms in eighth grade as the dependent variables, which were allowed to covary with one another. Participant ethnicity and sixth grade levels of perceived school unfairness, sleep duration, and depressive symptoms were entered as control variables, to model change over time.

As predicted, there was a significant indirect effect of gender discrimination on depressive symptoms via perceived school unfairness, ($ab = 0.04$, $SE = .01$, $p < .001$, 95% CI [0.02, 0.05]), such that girls who reported at least one incident of gender discrimination reported greater school unfairness, which was associated with more depressive symptoms (Figure 1). Similarly, as predicted, there was a significant indirect effect of gender discrimination on sleep duration via perceived school unfairness, ($ab = -0.04$, $SE = .01$, $p<.001$, 95% CI [-0.07, -0.02]), such that girls who reported at least one incident of gender discrimination reported higher school unfairness, which was associated with less sleep. As shown in Figure 1, the direct effects of gender discrimination predicting depressive symptoms and sleep duration remained significant after taking into account perceived school unfairness.

Including all study covariates in the model, the indirect effect of gender discrimination on depressive symptoms, ($ab = 0.02$, $SE=.01$, $p = .02$, 95% CI [0.004, 0.04]), and sleep duration, ($ab = -0.03$, $SE = .01$, $p = .03$, 95% CI [-0.05, -0.003]), via perceived school unfairness remained significant. Gender discrimination predicted higher school unfairness, ($b = 0.11$, $p = .01$), which in turn predicted more depressive symptoms, ($b = 0.19$, $p < .001$), and shorter sleep duration, ($b = -0.24$, $p<.001$). In this model, the direct effect of gender discrimination on depressive symptoms remained significant after taking into account perceived unfairness ($b = 0.21$, $p <$

.001), whereas the direct effect of gender discrimination on sleep duration was no longer significant, ($b = 0.10$, $p = .12$).

In sum, the findings suggest that experiencing any gender discrimination is associated with increases in student perceptions of their school as an institution that is unfair, which, in turn, is related to more depressive symptoms and less sleep across middle school.

Discussion

Utilizing a large and ethnically diverse sample, the present study is the first to show that girls experiencing any gender discrimination from an adult in seventh grade are more likely to report more depressive symptoms and less sleep across three years of middle school. Moreover, the current findings suggest that girls' perceptions of school unfairness provide insights into one of the psychological mechanisms that can partly account for links between gender discrimination, depressive symptoms, and sleep. Accounting for baseline (sixth grade) levels of depressive symptoms and sleep duration, girls who reported gender discrimination in seventh grade (compared to those who did not) came to perceive their schools as significantly more unfair, which was associated with increased depressive symptoms and shorter sleep durations. Such associations also hold when accounting for girls' experiences of racial discrimination, highlighting the robustness of such associations.

As such, these findings extend past research on the negative effects of any identity-based discrimination for adolescent adjustment (e.g., Huynh, 2012; Huynh & Fuligni, 2010; Majeno, et al., 2018; Umaña-Taylor & Updegraff, 2007; Yip, Cheon, Wang, Cham, Tryon, & El-Sheikh, 2019). While both sleep deprivation and excessive sleeping (i.e., low and high sleep durations) are associated with poorer psychological wellbeing (e.g., Fuligni, Arruda, Krull, & Gonzales, 2018), stressors such as discrimination are typically linked to shorter sleep durations given that

stressors tend to increase arousal and vigilance, thereby interrupting typical sleep patterns (Dahl & Lewin, 2002; Huynh & Gillen-O'Neel, 2016; Yip, 2015). In line with prior work (El-Sheikh, et al., 2016), we find that girls with more depressive symptoms reported shorter sleep durations.

As has been previously observed with racial-ethnic discrimination (e.g., Niwa, et al., 2014) among adolescents, experiences of gender discrimination are relatively infrequent (e.g., Brown, et al., 2010; Andrews et al., 2018), but potent predictors of sleep duration and depressive symptoms. Specifically, we found that for a one unit increase in gender discrimination, girls on average reported 11 minutes left of sleep per night. Adequate sleep is imperative for healthy adolescent development as it affects brain functioning, psychological health, and academic performance (Curcio, et al., 2006; Dahl & Lewin, 2002). Similarly, experiencing depressive symptoms during adolescence places youth at increased risk of academic underperformance and later psychological maladjustment (Frojd, et al., 2008; Lewinsohn et al., 1999). The present findings highlight the importance of considering the ways in which perceived gender-based mistreatment shapes adolescents' views of their social environments in ways that are related to compromised mental health and disrupted sleep.

We found that girls who report gender discrimination come to view their schools as significantly more unfair over time, which is associated with more depressive symptoms and shorter sleep durations. As far as we know, the current study is the first to document such associations among adolescent girls, and our results are consistent with prior research showing that adolescents' experiences of other types of discrimination (racial-ethnic) are associated with increased perceptions of school unfairness (Benner & Graham, 2011). Our findings are also congruent with studies utilizing adult populations, linking workplace discrimination with perceived organizational unfairness (Foley et al., 2002; 2005) and unfairness with worse health

(Robbins et al., 2011). Overall, our results suggest that because gender discrimination violates expectations of fair treatment from adults at school, girls extrapolate to the school context as a whole; viewing one's school as an unfair and unequal system then likely increases depressive symptoms and disrupts sleep by increasing negative cognitions and psychological preoccupation with a disappointing school environment. Like discrimination experiences, we presume that perceiving one's school as unfair constitutes a social stressor that activates arousal, which interferes with sleep and mood (Harrell, Hall, & Taliaferro, 2003; Dahl & Lewin, 2002; Huynh, 2012). Unlike adults in the workplace who may elect to change jobs, youth in schools are largely powerless to change schools or avoid discriminatory authority figures, perhaps exacerbating potential health consequences.

Although there were no ethnic differences in gender discrimination, Black girls perceived their school to be significantly more unfair than all other ethnic groups, and Asian girls perceived their school to be significantly less unfair than all other ethnic groups. These findings are consistent with ethnic disparities in school discipline. Black girls are especially likely to be subjected to unfair discipline practices (Wun, 2016), whereas Asian girls are particularly unlikely to be disciplined in school (Wallace, Goodkind, Wallace, & Bachman, 2008)—which may explain systematic ethnic differences in perceived school unfairness. Generally, Black girls also reported less sleep than most other racial-ethnic groups, suggesting that Black girls, in particular, may be vulnerable to negative psychosocial and academic outcomes as a function of compromised sleep in middle school. This finding is consistent with prior work examining racial-ethnic differences in sleep, with Black youth reporting the shortest sleep durations (Guglielmo et al., 2018; Hoyt et al., 2018).

Despite our large sample size, we were not able to examine whether the links between gender discrimination and our health indicators were moderated by ethnicity or SES due to insufficient power to detect such effects given the low rates of reporting gender discrimination. Given that experiences of, and attributions to, gender discrimination are likely shaped by one's ethnicity and SES, future work should seek to apply an intersectional approach and address this specifically with a larger sample size. Given that older girls report more gender-based mistreatment (Leaper & Brown, 2008), it would be important to replicate the current findings during high school, when gender discrimination from adults may become more frequent (as is the case for racial-ethnic discrimination; Greene, Way, & Pahl, 2006), thereby allowing for sufficient sample sizes to examine moderation by ethnicity.

Some other limitations need to be noted. Firstly, our mediator (perceived school unfairness) and outcome variables (sleep duration, depressive symptoms) were measured concurrently in eighth grade. As such, we are unable to make causal claims and instead document associations between these outcome variables. Also, all primary measures were self-report, and as such there is shared method variance among the constructs. Future work on related topics should seek to utilize multiple informants (e.g., parents, teachers, peers). Similarly, more comprehensive (e.g., daily diary) and objective measures of both sleep duration and quality (e.g., actigraphy to account for night wakings) should be used whenever possible, given considerable variability in sleep across a given school week (e.g., Fuligni & Hardway, 2006) and that people often overestimate their sleep durations in self-reports (Lauderdale, Knutson, Yan, Liu, & Rathouz, 2008). In the present study, participants' self-reported estimate of their bedtime and waketime on a "typical" school night was our only sleep-related indicator, and as such we utilized this to calculate sleep duration. In addition, gender discrimination was

broadly defined in our study, but did not include sexual harassment. While our goal was to examine gender discrimination as a broad set of experiences, it would be important to focus specifically on sexual harassment by adults and peers in school. For example, Brown and Leaper (2008) found that 12-18 year old girls report sexual harassment (e.g., unwanted or inappropriate romantic attention from boys) to be more common than discouraging comments from teachers or coaches at school. Future research on the health-related consequences of discrimination by adults at school, in turn, should also include transgender and gender non-conforming youth, as they are subjected to harsher discipline practices in schools (Snapp, Hoenig, Fields, & Russell, 2014).

In sum, the present study highlights potential developmental consequences for girls who experience gender discrimination during early adolescence. We identify a novel psychological mechanism that helps explain links between discrimination and poorer health, with important implications for school practices. Given the robust associations between gender discrimination, perceived school unfairness, worse mental health, and less sleep, professional development for school teachers and staff should include training on ways to minimize gender bias in the classroom. Reducing gender bias in teachers can be challenging, and more research is needed in the development of evidence-based bias-reduction training in schools (Espinoza, Arêas da Luz Fontes, Arms-Chavez, 2014). Like adult women (e.g., Woodzicka & LaFrance, 2001), girls may also be similarly hesitant to report gender discrimination to school administrators. This may be particularly the case when the source of discrimination is a teacher or other school personnel, given the differences in power. As such, if any complaints are made by students, school administrators should respond in a supportive way so as not to further alienate girls from the school (i.e., eliciting even greater perceptions of school unfairness). The current findings

underscore the developmental costs for girls if schools fail to systematically address gender bias among their teachers and staff.

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Table 1.

Means, Standard Deviations, and Inter-Item Correlations Between Variables

	Variable	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	12.	13.	*M*	*SD*
1.	Gender Disc.[1] (7th)	1													0.17	0.38
2.	School Unfair (6th)	.16***	1												2.61	0.64
3.	School Unfair (8th)	.19***	.48***	1											2.84	0.63
4.	Sleep Duration (6th)	-.07***	-.25***	-.21***	1										8.89	0.95
5.	Sleep Duration(8th)	-.09***	-.16***	-.23***	.42***	1									8.17	1.05
6.	Depressive Symptoms (6th)	.16***	.24***	.19***	-.16***	-.09***	1								1.62	0.58
7.	Depressive Symptoms (8th)	.21***	.21***	.25***	-.14***	-.28***	.34***	1							1.86	0.71
8.	Racial-Ethnic Disc.[1] (7th)	.35***	.27***	.28***	-.17***	-.13***	.17***	.21***	1						0.30	0.46
9.	GPA (6th)	-.10***	-.22***	-.24***	.15***	.06**	-.14***	-.10***	-.21***	1					3.18	0.79
10.	SES (6th)	.02	.03	-.04	.07***	-.02	-.07***	-.02	-.14***	.27***	1				3.01	1.35
11.	Stud. Diversity (6th)	.02	-.002	.002	.03	-.002	-.01	.05	-.02	.13***	.25***	1			0.64	0.08
12.	Teach. Diversity (6th)	.01	.03	.09***	-.08***	-.03	-.003	-.01	.11***	-.17***	-.15***	-.30***	1		0.54	0.15
13.	Prop. FRL Eligible (6th)	.03	.06**	.06**	-.05*	-.02	.04*	-.02	.13***	-.22***	-.32***	-.50***	.45***	1	0.48	18.33

Note. [1]Dichotomous indicators. *$p \leq .05$, **$p \leq .01$, ***$p \leq .001$

Table 2

Effects of Gender Discrimination on Changes in School Unfairness, Sleep Duration, and Depressive Symptoms Over Time

	Dependent Variables					
	School Unfair (8th)		Sleep Duration (8th)		Depressive Symptoms (8th)	
	b	*SE*	*b*	*SE*	*b*	*SE*
Fixed Effects						
Intercept	2.82***	0.04	8.26***	0.05	1.80***	0.04
Ethnicity						
Black[1]	0.14**	0.05	-0.23**	0.08	-0.03	0.07
Asian[1]	-0.18***	0.05	-0.05	0.06	-0.01	0.06
White[1]	-0.05	0.05	-0.08	0.06	-0.01	0.06
Multiethnic[1]	0.03	0.04	-0.17**	0.06	0.09	0.05
Baseline DV (6th)	0.44***	0.02	0.48***	0.03	0.39***	0.04
Gender Discrim.[1] (7th)	**0.21*** **	**0.04**	**-0.18*** **	**0.06**	**0.30*** **	**0.05**
Random Effects						
Intercept	.013**	0.005	0.009	0.006	0.005	0.004
Residual	.28***	.01	0.89***	0.05	0.43***	0.03

Note. Bolded rows highlight key predictors for our hypotheses. [1]Dichotomous indicators. Latina participants are the ethnicity reference group.
**$p \leq .01$, ***$p \leq .001$

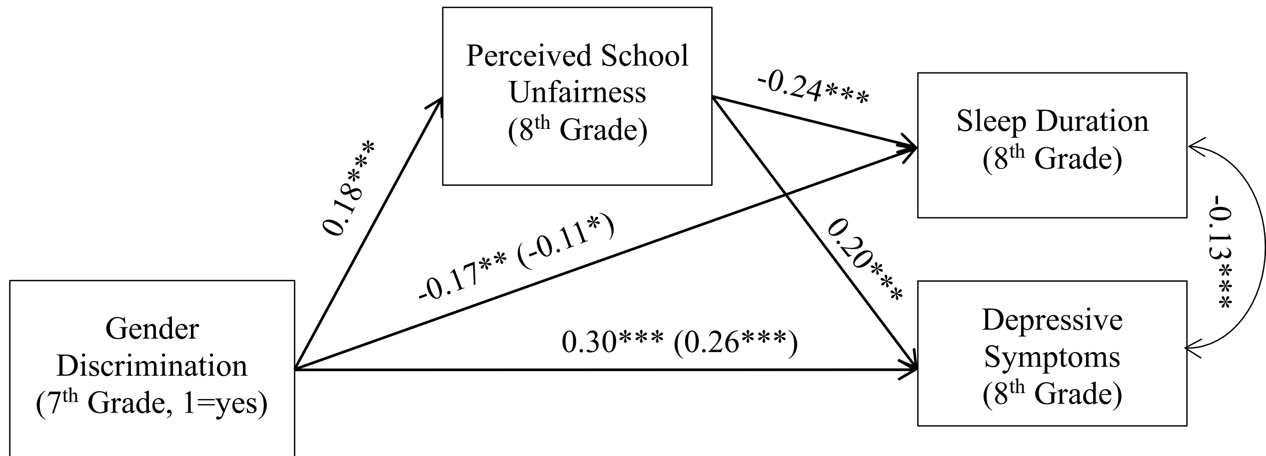

Figure 1. *Longitudinal Indirect Effects of Gender Discrimination from Adults on Sleep Duration and Depressive Symptoms via School Unfairness.* Covariates are participant ethnicity and sixth grade (i.e., baseline) levels of mediator and dependent variables.

Appendix G

Perceptions of Adult Gender and Racial-Ethnic Discrimination
(adapted from Adolescent Discrimination Index, Fisher, et al., 2000)

Since You Started Middle School

Sometimes people are treated unfairly. This could happen for many reasons. But a lot of times when middle school students feel they are treated unfairly it's because of the things about them that are visible to everyone - such as their gender (being a boy or girl), their race/ethnic group, or their body size, like their weight.

Below are some situations where other middle school kids said they were treated unfairly because of their gender, race/ethnic group or their body weight. We want to know if any of these things have happened to you **since you started middle school**.

How often…

`	Never	Once or Twice	A Few Times	A lot	A Whole Lot
	1	2	3	4	5
1. …were you disciplined unfairly at school because of your…					
Gender?					
Racial/Ethnic Group?					
2. …were you given a lower grade than you deserve because of your…					
Gender?					
Racial/Ethnic Group?					
3. …did adults at school act as if they thought you were not smart because of your…					
Gender?					
Racial/Ethnic Group?					
4. …were you treated disrespectfully by adults at your school because of your…					
Gender?					
Racial/Ethnic Group?					

Perceptions of School Unfairness
(adapted from the ESB, Gottfredson, 1986)

About my School

Is your school like this?

`	FOR SURE YES!	Yes	Sort of	No	NO WAY!
1. Everyone knows what the school rules are.					
2. The school rules are fair.					
3. The punishment for breaking school rules is the same no matter who you are.					
4. The rules in the school are too strict.					
5. Students get in trouble for breaking small rules.					

Depressive Symptoms
(adapted from the CESD, Radloff, 1977)

THINK ABOUT HOW YOU HAVE FELT IN THE PAST WEEK. HOW OFTEN DURING THE LAST 7 DAYS DID YOU HAVE ANY OF THESE FEELINGS?

1 = Rarely or none of the time (less than 1 day)
2 = A little (1-2 days)
3 = Some of the time (3-4 days)
4 = Almost all of the time (5-7 days)

	1	2	3	4
1. I was bothered by things that usually don't bother me.				
2. I had trouble keeping my mind on what I was doing.				
3. I felt depressed.				
4. I felt afraid.				
5. My sleep was restless.				
6. I felt sad.				
7. I could not "get going."				

Sleep Duration

1. On school nights, what time do you usually go to sleep?
2. On school days, what time do you usually wake up in the morning

General Discussion

In spite of increased legal protections against gender-based mistreatment in the United States over the last half-century for women and girls, sexism and gender discrimination continue to be pervasive throughout both school and workplace environments. Girls report experiencing gender-based mistreatment from their teachers as early as in middle school, and these discrimination experiences persist across development, effecting their educational opportunities and health outcomes over time (Brown & Stone, 2016; Leaper & Brown, 2008; Robnett, 2015; Schmitt, Branscombe, Postmes, & Garcia, 2014). Among adult women, gender discrimination is associated with poorer health and considerable socio-economic disadvantage (e.g., Klonoff, Landrine, & Campbell, 2000; Pew Research Center, 2013; 2016). Given that school and workplace environments are the primary socializing institutions in which people participate across the lifespan, and there is a legal obligation for these settings to be devoid of gender-based discrimination (e.g., *Civil Rights Act of 1964*), the present work focuses on examining experiences of, and perceptions of, gender discrimination in these two central settings.

In terms of strategies to remedy the potential socio-economic and professional costs associated with gender discrimination in the workplace, confronting the source of discrimination has previously been identified as an especially beneficial approach to responding to discrimination (e.g., Chaney, Young, & Sanchez, 2015; Czopp, Monteith, & Mark, 2006). And yet, researchers have documented that women rarely engage in confrontation following discrimination, in part due to concerns about the potential interpersonal and professional costs of confronting (Kaiser & Major, 2006; Shelton & Stewart, 2004; Shih, Young, & Bucher, 2013; Swim & Hyers, 1999; Woodzicka & LaFrance, 2001).

Guided by work showing that when people speak up about discrimination they are often labelled by others as complainers (Feagin & Sikes, 1994; Kaiser & Miller, 2003; Kowalski, 1996; Mallett & Wagner, 2011), Paper 1 identified a novel psychological barrier that inhibits confronting behavior among women—*complainer confirmation anxiety*. Specifically, I found that women who expressed greater concerns about confirming the negative stereotype that women are complainers reported a lower likelihood that they would intend to confront a discriminatory supervisor in a hypothetical workplace gender discrimination situation. These associations, replicated across the studies, held even when taking into account women's generalized confrontation-related anxiety. In addition, I showed that workplaces that offer an organizational culture high in discussability and self-reflection (Ashford, Blatt, & Walle, 2003; Kaptein, 2008) (i.e., having an "open door" culture) reduce women's levels of complainer confirmation anxiety, which, in turn, increases their behavioral intentions to confront and decreases their behavioral intentions to avoid a discriminatory supervisor. Together, these studies suggest that while complainer confirmation anxiety may be a previously unidentified barrier to confronting gender discrimination, organizations that aim to promote confronting behavior among employees and reduce gender inequality at the organizational level may benefit from developing a workplace culture in which openly discussing challenging topics like discrimination is rewarded and speaking up about wrongdoings is valued (rather than discouraged).

Importantly, women's concerns about being perceived by others as a complainer when claiming discrimination appear justified, and the stereotype that people who speak up about discrimination are simply complainers is widely endorsed (Kaiser & Miller, 2003; Kowalski, 1996; Swim, Cohen, & Hyers, 1998). In Paper 2, I studied potential underlying psychological

reasons that some people may endorse this complainer stereotype about women who claim gender discrimination. Namely, I found that people who demonstrated a preference for group-based hierarchy over equality (i.e., are higher in social dominance orientation; SDO; Pratto, Sidanius, Stallworth, & Malle, 1994) were significantly more likely to endorse the complainer stereotype about women who claim discrimination, over and above demographics and political conservatism. In further support of a motivated psychological process by derogating women who challenge gender discrimination as complainers, I showed that people higher in SDO are especially likely to rate a woman as a complainer when she confronts (compared to when she does not confront) a discriminatory supervisor at work. People lower in SDO did not differ in their endorsement of the complainer stereotype about a woman who confronts or does not confront the source of discrimination. These findings suggest that people who demonstrate a preference for group-based hierarchy to inequality may engage in stereotyping of women who claim discrimination as complainers in an effort to maintain the unequal status between gender groups.

In Paper 2, I also demonstrated that regardless of people's levels of SDO, when a woman explicitly stated that she was confronting gender discrimination on behalf of all the women in her organization (as opposed to for her own self-interests) she was perceived by others as significantly more altruistic, which resulted in lower endorsement of the complainer stereotype. Similarly, I found that confronting on behalf of women as a group (compared to the self) led participants to be more likely to construe the scenario itself as discriminatory (i.e., a valid claim of discrimination), thereby lowering people's endorsement of the complainer stereotype. This research highlights potential challenges that women who wish to confront gender discrimination in the workplace likely face—with people higher in SDO being more likely to dismiss their

claims of discrimination and label them as complainers as a strategy to maintain group-based inequality. In addition, this work suggests that women may benefit from explicitly stating that they are confronting on behalf of women as a social group when engaging in confronting, which could result in more favorable evaluations by others regardless of their levels of SDO.

Finally, it is clear that gender discrimination often occurs much earlier in the lifespan than when women are pursuing their professional careers as adults. While the health consequences of gender discrimination are well-documented in adult populations (for a review, see Pascoe & Smart Richman, 2009), less is known about how gender discrimination experiences may relate to adolescent girls' mental and physical health over time. In a large, ethnically-diverse sample of early adolescent girls, Paper 3 examined the relations between gender discrimination from adults at school (e.g., teachers) and maladjustment over time. Specifically, I found that girls who report having experienced gender discrimination come to view their schools as significantly less fair, and such perceptions, in turn, were associated with an increase in depressive symptoms and shorter sleep durations. These findings suggest that girls may extrapolate discrimination experiences to their judgements of the larger school context, which has negative consequences for their adjustment across middle school. Coincidentally, middle school (along with the onset of puberty) marks the beginning of life-long group-based gender differences in both depression and insomnia (Johnson, Roth, Schultz, & Breslau, 2006; Nolen-Hoeksema & Girgus, 1994; Salk, Hyde, & Abramson, 2017; Zhang & Wing, 2006), highlighting the importance of studying these outcomes during this developmental stage.

Future Directions and Implications

My findings related to the health costs of gender discrimination among middle school girls highlight the importance for evidence-based research on ways to reduce gender bias among

teachers and promote gender equality in the classroom. Evidence-based strategies to minimize gender bias in teaching staff are needed, as non-evidence-based diversity-related trainings are often ineffective and sometimes even harmful (for a review, see: Moss-Rascusin, van der Toorn, Dovidio, Brescoll, Graham, & Handelsman, 2014). Common approaches include placing blame on and highlighting the culpability of training attendees, which can result in a backlash effect, ironically undermining the effectiveness of the training itself. Given that the majority of middle school teaching staff are women (NCES, 2013), and yet they are still capable of holding gender biases and endorsing harmful gender stereotypes about youths' abilities, this presents a unique challenge in terms of developing effective bias-reduction training. As such, establishing trainings with lasting effects that will be well-received by teachers may indeed be challenging (Espinoza, Arêas da Luz Fontes, Arms-Chavez, 2014), particularly with the existing professional development demands of teachers in schools currently.

Even though experiencing gender discrimination from adults at school is a relatively rare occurrence for adolescent girls, the consequences for their impressions of the school environment and their overall adjustment are profound. Given that the base rates of gender discrimination were quite low, future work would benefit from exploring if girls may be hesitant to label and report gender-based mistreatment. It is possible that girls may be under-reporting gender discrimination in the present study. I would be particularly interested in examining if adolescent girls—like adult women—might harbor concerns about being seen by others as complainers, which might lower their willingness to report experiences of gender-based mistreatment by both peers and adults at school. Furthermore, given that adult women incur considerable social costs when trying to address experiences of gender discrimination (Bergman, Langhout, Palmieri, Cortina, & Fitzgerald, 2002; Kaiser & Miller, 2001; Shelton & Stewart,

2004; Shih, et al., 2013), it would be of interest for future researchers to examine whether or not girls who report experiencing gender discrimination are significantly more likely to be disliked by their peers and teachers. Like adult women, adolescent girls may similarly be dismissed as complainers by others when claiming to have experienced gender discrimination in school.

Among adult women in the workplace setting, it is critical that future research examines the extent to which complainer confirmation anxiety predicts observable confronting behavior, in addition to confronting intentions, especially given that women are often inaccurate in their forecasting of their own confronting behavior (Woodzicka & LaFrance, 2001). In addition, future work should examine if experiencing complainer confirmation anxiety, which is likely subjectively stressful, might also result on worse health for women over time. It is possible that not only does gender discrimination harm women's health, but also the chronic stress and cognitive preoccupation with concerns about confirming the complainer stereotype may exacerbate the health costs women incur as a result of gender discrimination. Furthermore, experiences of complainer confirmation anxiety might not only reduce confronting behavior in the workplace; it is possible that women who report more complainer confirmation anxiety might also suffer in terms of their workplace productivity, as such anxiety states are cognitively taxing and potentially further disadvantaging women professionally. I would like to identify additional potential health and professional costs for women who report experiencing complainer confirmation anxiety following experiences of gender discrimination.

Particularly in the present socio-political climate where Americans feel emboldened to express their prejudiced beliefs openly (Pew Research Center, 2019), it is especially important that people who are the victims of discrimination are able to speak out against group-based mistreatment and confront perpetrators of discrimination. As such, dispelling the myth that

people who claim discrimination are merely complainers is imperative. Identifying strategies to increase others' willingness to acknowledge discrimination should be a research priority for future work. While I find evidence that people who have a preference for group-based inequality (i.e., are higher in SDO) may stereotype women who claim discrimination to be complainers as a hierarchy-enhancing strategy, more research is needed to identify ways that this link can potentially be mitigated.

The present work provides some initial evidence that *the way* women confront gender discrimination can minimize the extent to which others stereotype them as complainers, in general. I found that when a woman confronted gender discrimination on behalf of all the women at her organization, she was perceived as more altruistic and the incident itself was more likely to be construed as discriminatory, which resulted in more favorable evaluations of her. Women as a group are stereotyped as other-focused and communal (Eagly & Steffen, 1984; Rand, et al., 2016), and this may explain why women would receive more positive evaluations by others (even those individuals who are higher in SDO) because advocating on behalf of others is stereotype-consistent behavior for women. However, while the effects of group-based confronting were similar across individuals relatively higher and lower in SDO, future research should focus on identifying specific strategies to reduce the endorsement of the complainer stereotype among people who have hierarchy-enhancing motivations. Given that people higher in SDO are more likely to employ the complainer stereotype as a strategy to reject claims of gender discrimination, interventions aimed at improving perceptions of women who claim discrimination should be tailored to individuals who show greater social dominance motives.

Final Conclusions

Together, the three papers presented in this dissertation aimed to (1) identify approaches that organizations can employ (e.g., establishing an open door culture) to promote confronting behavior among women targets of gender discrimination in the workplace; (2) explore confronting strategies for women to use that may minimize negative evaluations from others when confronting gender discrimination; and (3) highlight the developmental costs of experiencing gender discrimination during adolescence. The broader aims of this work are to document the harms of gender discrimination across development, provide a novel psychological explanation for why women may be hesitant to confront incidences of gender discrimination (i.e., complainer confirmation anxiety), and reveal the underlying psychological motivations of people who label women that claim discrimination as complainers (i.e., social dominance orientation). Both schools and workplaces, given their structure and function, have the opportunity to address gender bias in their teaching staff and employees, respectively. Given the inherent power dynamics between teachers and students, as well as supervisors and employees, it is especially important that individuals at the top of the hierarchy (i.e., in leadership positions) strive to maintain an environment free from gender discrimination and encourage a culture in which confronting discrimination is valued, rather than stigmatized.

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