

THE EFFECT OF PERCEIVED MEN'S STANDARDS OF INJUSTICE ON WOMEN'S RESPONSES TO INEQUALITY

By Elle A. Moore

The present study investigated the effects of perceived men's standards of injustice on women's responses to the inequality of the gender wage gap. Men's standards of injustice (i.e., outgroup standards of injustice) are defined as the amount of evidence men require to conclude that the existing gender economic inequality is unfair to women (Miron, Branscombe, Kulibert, Moore, & Agnello, in preparation-a; Miron, Branscombe, Moore, & Kulibert, in preparation-b). Work by Miron and colleagues (Miron et al., in preparation-a; b) indicated that women overestimate men's standards of injustice (e.g., women believe men require more evidence of the gender wage gap to conclude it is unfair in comparison to the amount of evidence that men themselves report requiring). The current study tested 109 female participants and manipulated women's perception of men's standards of injustice in order to test the applicability of the Rejection-Identification Model (Branscombe et al., 1999) to women's experiences with the gender wage gap. Specifically, the current experiment examined the complex relationship between perceived men's standards of injustice and women's gender identification, self-esteem, and willingness to reduce inequality. Results were consistent with elements of the Rejection-Identification Model. Women who were informed that men require a low amount of evidence reported stronger identification with their gender group. Furthermore, women's standards mirrored the manipulated men's standards. Post-hoc regression analyses indicated that increased gender identity predicted greater willingness only in the high standards and no information conditions. Moreover, high within-group correlations between women's own standards and manipulated men's standards in the low standards condition indicated that women feel free to determine for themselves the amount of evidence they need in order to recognize the gender wage gap as unfair when they perceive men as being in solidarity with women. These results also support the notion that solidarity between genders can be an important factor when the goal is reducing gender inequality. Nevertheless, these findings require further replication.

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Chapter I

Introduction

The gender wage gap, in which women's earnings are approximately equal to 80% of men's earnings (National Partnership for Women & Families, 2017), holds true across a variety of occupations. For example, women earn 91% of men's earnings for construction and extraction jobs, though only 56.7% of men's earnings in legal positions (Bureau of Labor Statistics, 2016). However, men and women perceive the social inequality of the gender wage gap differently, likely due to the differing amounts of evidence that men and women require to conclude that the existing economic inequality is unfair to women (i.e., injustice standards), with men requiring significantly higher amounts of evidence to recognize this injustice in comparison to women (Miron, Warner, & Branscombe, 2011).

Interestingly however, women perceive men as requiring more evidence of gender wage inequality than men themselves report requiring in order to conclude that the gender wage gap is unfair (Miron et al., in preparation-a). In addition, women's overestimation of the amount of evidence men require to come to this conclusion positively predicts both women's agreement with policies aimed at reducing the gender wage gap and women's perceived unwillingness of men to reduce this inequality (Miron et al., in preparation-a). This overestimation possibly functions as a motivational tool to increase women's identification with their gender group and engage their gender group in collective behaviors to fight this social injustice. Furthermore, this overestimation

possibly helps to offset some of the negative psychological costs of recognizing men's high injustice standards by increasing women's gender group identification. Thus, the proposed study seeks to determine whether the overestimation of men's injustice standards by women serves as a motivational mechanism by which women increase gender group identification to preserve their psychological well-being as well as motivate their gender group (and themselves) to fight the social inequality of the gender wage gap.

Social Identity Theory

Social identity, which is central to one's sense of self, is formed through belonging to relevant social groups. Social groups can include gender groups, ethnic groups, groups of those with similar professions, education groups, etc., and serve a number of functions aside from contributing to one's identity. Belonging to a social group informs one of the appropriate behaviors that a member of their group should engage in (Mackie, Devos, & Smith, 2000) as well as the emotions that they should feel in a given situation (Smith & Mackie, 2015).

Social Identity Theory was first postulated by Tajfel and Turner in 1986 and posits that one's social category (e.g., nationality, gender) to which they feel individuals belong broadly defines their sense of self, which is informed by the observed characteristics of the social group to which they belong (Hogg, Terry, & White, 1995). An individual may identify as a member of multiple social groups (e.g., racial and gender group identification), though only one social categorization may be represented in their mind at a time. Social identities do not only describe who one should be, but they also

serve an evaluative function by providing a framework against which members of a given social group are compared.

Prejudice and Inequality

Perceptions of inequality. Members from social groups differ in their perceptions of inequality, with research showing that men are less likely than women to perceive gender inequality (Miron et al., 2011), that women report greater discrimination in comparison to men (suggesting that they may perceive greater inequality; Branscombe, 1998; Schmitt, Branscombe, Kobrynowicz, & Owen, 2002) and, outside of gender inequality, that racial minorities perceive more racism in comparison to members of the racial majority group (Adams, Tormala, & O'Brien, 2006). One possible explanation for this discrepancy in prejudice perception relates to the different qualitative standards advantaged and disadvantaged group members refer to in order to label an event or outcome as prejudicial (i.e., injustice standards [e.g., the number of years the gender wage gap must continue in order for them to judge the gender wage gap as unfair to women]; Miron, Branscombe, & Biernat, 2010). Members of advantaged and disadvantaged groups are motivated to set differential injustice standards for a variety of reasons. For advantaged group members, it may be beneficial to set a high standard of injustice in order to avoid the negative feelings associated with recognizing the injustice that disadvantaged group members experience (i.e., guilt) or in order to preserve their positive social identity within the advantaged group (Branscombe & Miron, 2004). However, disadvantaged group members may be motivated to set lower injustice

standards in order to motivate members of the advantaged group to respond to and make up for the wrongdoings (Branscombe & Miron, 2004; Walster, Berscheid, & Walster, 1973). Therefore, disadvantaged group members perceive negative prejudicial events as more severe than advantaged group members do.

Injustice standards and the gender wage gap. The discrepancy in perceived inequality also extends to the gender wage. In an initial study, when provided with information regarding the gender wage gap, both men and women were aware of the gender economic inequality prior to participating in the study, however men rated the gender wage gap as less severe than women (Miron et al., 2011). In a follow-up study by Miron and colleagues (in preparation-a), men and women were provided with factual information regarding the gender wage gap. Participants were asked to estimate both the amount of evidence of this gender economic inequality their own ingroup would require to conclude the gender wage gap is unfair to women (i.e., injustice standards) and the amount of evidence that they believed the outgroup (men) would require in order to conclude the gender wage gap was unfair to women (i.e., estimated outgroup standards of injustice). First, replicating previous findings by Miron et al. (2011), researchers found a discrepancy in regards to the amount of evidence that each group required to conclude that existing gender economic inequality is unfair to women, where men required a greater amount of evidence to arrive to this conclusion in comparison to women (Miron et al., in preparation-a). Additionally, there was a discrepancy in both groups' estimations of the amount of evidence that the other outgroup would require to recognize this inequality as unjust. Both groups overestimated their outgroup's injustice standards; men

estimated that women required a similar amount of evidence to what men themselves report requiring, bringing women's standards in line with men's injustice standards, while women estimated that men require a higher amount of evidence than men themselves reported requiring. Finally, women's overestimation of men's injustice standards was a positive predictor of both women's agreement with inequality-reducing policies (i.e., when women overestimated men's standards, they agreed more with policies aimed at reducing the gender economic inequality) as well as the perceived unwillingness of men to reduce the inequality (i.e., when women overestimated men's standards, they perceived men as being less willing to fight to reduce the gender wage gap).

A number of conclusions may be drawn from these results; first, men and women require differential amounts of evidence to recognize the injustice of the gender wage gap. Secondly, men estimated that women require an amount of evidence to recognize this injustice that was similar to men's own standard. This suggests that men may be motivated to maintain their positive social identity and the status quo by failing to recognize the gender wage gap as unjust. Finally, women may be overestimating men's standards of injustice for a number of reasons, including the preservation and protection of their psychological well-being, to increase their identification with their gender group, and possibly to motivate members of their gender group to fight to reduce this inequality.

Psychological consequences of perceiving prejudice. A large body of literature suggests that perceiving prejudice against one's ingroup is harmful to members of the disadvantaged group, and this has been shown to negatively affect the psychological

well-being of women (Klonoff, Landrine, & Campbell, 2000; Kobrynowicz & Branscombe, 1997), sexual minority individuals (Herek, Gillis, & Cogan, 1999), and members of racial minority groups (Branscombe et al., 1999). The negative consequences of perceiving prejudice can include diminished self-esteem, a loss of feelings of control, negative future expectations for the self, and diminished generalized psychological well-being (Branscombe et al., 1999; Schmitt & Branscombe, 2002; Schmitt et al., 2002).

One perspective suggests that when women perceive pervasive gender inequality, this is harmful to their psychological well-being because it leads women to realize that their life opportunities are limited in ways that others (i.e., men's) are not (Schmitt et al., 2002). In a study examining attributions to prejudice in men and women, undergraduate students were asked to recall a situation in which they were treated poorly by a professor (Schmitt & Branscombe, 2002). Researchers manipulated whether or not that negative treatment by the professor could be attributed to gender-based prejudice or whether the professor behaved in this manner toward all of their students, suggesting that this treatment was unrelated to the student's gender. When participants were led to believe the professor treated everyone poorly, there were no affective response differences between men and women. However, when the participants were led to believe that the pervasive negative treatment could be attributed to gender-based prejudice on the part of the professor, women reported significantly more negative affect than did men.

Responses to prejudice and inequality. This range of reactions by advantaged and disadvantaged group members towards members of the opposite group is accounted for through Social Identity Theory (Brown, 2000). This explanation stems from the

argument that the highest levels of favoritism for ingroup members should be found in disadvantaged group(s), as disadvantaged members were those viewed least positively in society, and thus, they are motivated to protect and preserve the members of their ingroup (Tajfel & Turner, 1986). However, research contradicts that assumption and finds that most often the highest levels of ingroup favoritism occur in the advantaged group (Sachdev & Bourhis, 1987; Turner, 1978; Mullen, Brown, & Smith, 1992).

Coping mechanisms. Members of disadvantaged groups may use different coping mechanisms to respond to prejudice and inequality by the advantaged group. One such mechanism is the attribution of negative treatment or events to external sources (Snyder & Higgins, 1985), which is likely used when coping with a single instance of prejudice (Branscombe et al., 1999). Research on Attribution Theory suggests that when one receives negative feedback from others, they often discount that feedback and attribute it to an external cause (e.g., a prejudiced other's behavior) rather than to their own performance or some other internal cause (Branscombe et al., 1999). Despite being able to use external attributions for prejudice to preserve one's self-esteem, it is unlikely that this strategy could be employed long-term to protect against pervasive prejudice. One reason is that the perception of oneself as a victim due to external attributions is aversive, and thus, people would likely avoid victimizing themselves over a long period of time (Branscombe et al., 1999). Indeed, the attribution of prejudicial instances to internal causes has been shown to evoke hopelessness in those experiencing prejudice (Weiner, Russell, & Lerman, 1979). Additional research suggests that internal attributions for prejudice are likely to diminish self-esteem because of the perceived rejection on the part

of the advantaged group (Kite, Deaux, & Miele, 1991; Sigelman & Welch, 1991).

Furthermore, those who experience prejudice on the basis of readily observed categories, such as gender or race, are likely to recognize that this prejudice may be experienced in a wide range of situations. Research has found that the perceived social rejection due to prejudice results in depression (Frable, 1993), anxiety (Baumeister & Tice, 1990) and diminished self-esteem (Leary, Tambor, Terdal, & Downs, 1995).

Alternatively, Social Identity Theory proposes that individuals may cope with prejudice against their ingroup by increasing their identification with that ingroup (Tajfel & Turner, 1986). In fact, one study found that group identification among disadvantaged group members was higher when they felt social mobility was impossible as compared to those who felt they could move to a more socially-valued group (Ellemers, 1993).

Despite this, Social Identity Theory fails to explain what specific function this increased group identification may serve for the disadvantaged group as a whole.

Rejection-Identification model. The failure of Social Identity Theory to address the function of increased group identification is addressed by the Rejection-Identification Model (Branscombe et al., 1999), which was established by expanding upon this increased group identification when social mobility appeared impossible. The Rejection-Identification Model demonstrates the effect of attributions to prejudice on group identification and psychological well-being (see Figure 1). Previous research has found that merely identifying as a disadvantaged group member is associated with a wide range of negative outcomes, including diminished self-esteem (Bat-Chava, 1994; Munford, 1994) and depression (Arroyo & Zigler, 1995). However, when a disadvantaged group

member attributes negative outcomes in their life to prejudice, they are likely to experience even greater negative effects on their psychological well-being. The model predicts that when one attributes these negative events in their life to prejudice, they are also likely to increase their group identification as a way to preserve and protect their self-esteem, similar to the response suggested by Social Identity Theory. Research examining the applicability of the Rejection-Identification Model has found that when African-Americans attribute negative outcomes in their life to prejudice, they do, in fact, experience a direct negative effect on their psychological well-being as compared to those who do not attribute those same negative events to prejudice (Branscombe et al., 1999). However, level of group identification mediated the relationship between attributions to prejudice and psychological well-being. When one attributed more events in their life to prejudice, they increased their identification with their disadvantaged group, which then alleviated the direct negative effect of attributions to prejudice on psychological well-being. The model also occurs in samples of older adults (Gartska, Schmitt, Branscombe, & Humert, 2004) and international students (Schmitt, Spears, & Branscombe, 2003).

The proposed process model. The proposed model would expand upon Social Identity Theory (Tajfel & Turner, 1986) and the Rejection-Identification Model (Branscombe et al., 1999) by experimentally manipulating women's estimated standards of men to establish a causal link between these estimated standards and women's gender identification. In line with Social Identity Theory (Tajfel & Turner, 1986) and the Rejection-Identification Model (i.e., disadvantaged group members respond to prejudice

by increasing identification with the disadvantaged group; Branscombe et al., 1999; Gartska et al., 2004; Schmitt et al., 2002; Schmitt et al., 2003), women told men require greater evidence to recognize the gender wage gap as unfair should respond to this perception of prejudice by increasing their identification with their gender group, while those told men require little evidence to recognize the gender wage gap as unfair should not. Furthermore, the perception of this prejudice by the advantaged group should negatively impact women's self-esteem, as they recognize that they are devalued by the advantaged group in society on the basis of their gender group membership. The increase in gender identification by women should offset some of these negative effects on self-esteem, as both Social Identity Theory (Tajfel & Turner, 1986) and Rejection-Identification Theory (Branscombe et al., 1999) posit that one will increase their group identification when faced with prejudice in order to preserve their self-esteem by increasing solidarity with their ingroup and increasing the personal value of their group membership. Finally, when told men require a greater amount of evidence to conclude the gender wage gap is unfair, women would be more motivated to work to reduce gender economic inequality, and thus more willing to engage in behaviors aimed at reducing gender economic inequality.

The Current Study

The current study was designed to assess why women overestimate men's standards of injustice as well as to evaluate whether women benefit by overestimating men's standards of injustice. Previous research finds that not only do women

overestimate the amount of evidence men require to say that the gender wage gap is unjust to women (i.e., women believe that men require a high amount of evidence of the gender wage gap to recognize it is unfair), but also indicates that these overestimated standards of men positively predict women's agreement with policies to reduce the gender economic inequality as well as the perceived unwillingness of men to work to reduce inequality (Miron et al., in preparation-b). These results suggest that the overestimation of men's standards of injustice by women may serve as a type of motivational tool for women to increase their gender group identification and assemble a cohesive ingroup in order to engage in collective behaviors aimed at reducing gender economic inequality.

Thus, the current study provided women with information on the gender wage gap, manipulated men's standards of injustice (i.e., women were told men require a high amount of evidence, low amount of evidence, or no information) and examined women's gender identification, self-esteem (to assess psychological well-being) and willingness to reduce inequality. In line with Social Identity Theory (Tajfel & Turner, 1986), it was expected that women told men require a high amount of evidence or told no information would report higher levels of group identification than those told men require a low amount of evidence (*Hypothesis 1*), as women in the first two conditions are responding to perceived prejudice towards their ingroup by the advantaged group (i.e., men). This increase in gender identity would serve to protect their well-being by enhancing their identification with others who identify as 'like them' and have similar experiences with prejudice.

Broadly, it was predicted that women in either the high standards condition (i.e., women told that men require a high amount of evidence to conclude that the gender economic inequality is unfair to women) or the no information condition (i.e., told no information regarding men's injustice standards) would report lower levels of self-esteem, while those in the low standards condition would report higher levels of self-esteem (*Hypothesis 2*). This is because the perception of pervasive prejudice towards one's ingroup can have a negative impact on one's self-esteem by revealing one's lesser status in society based on characteristics that cannot be changed (Branscombe et al., 1999; Gartska et al., 2004; Schmitt et al., 2002; Schmitt et al., 2003).

Finally, women in the low men's standards condition (i.e., women told that men require a low amount of evidence to conclude the gender economic inequality is unfair to women) were expected to report lower levels of willingness to reduce inequality compared to women in either of the other two conditions (*Hypothesis 3*). Compared to women in the low standards condition, women who are told that men require greater evidence of the gender wage gap and those in the control condition should mobilize more as a group to reduce this inequality, as they perceive the advantaged group as unwilling to work together to improve women's economic situation.

Furthermore, the current study sought to test the Rejection-Identification Model (Branscombe et al., 1999) as it applies to women's experiences with the prejudice of the gender wage gap. It was expected that group identification would mediate the relationships between manipulated outgroup standards of injustice and (a) self-esteem (*Hypothesis 4A*) and (b) willingness to reduce inequality (*Hypothesis 4B*). Consistent

with the Rejection-Identification Model (Branscombe et al., 1999), after including group identification in the process model, the magnitude of the direct negative effect of manipulated outgroup standards of injustice on self-esteem should decrease.

Additionally, the inclusion of gender identity in the model would significantly reduce the effect of manipulated outgroup standards of injustice on willingness to reduce inequality, as the increased gender identification would account for the increased willingness to reduce inequality.

Chapter 2

Method

Participants

After removing one participant for failing to pass the manipulation check (high standards condition) and two participants for being multivariate outliers on multiple measures (one in the low standards condition, one in the no information condition), the current study included 109 female participants recruited through the Psychology Department participant pool at the University of Wisconsin Oshkosh. The mean age of participants was 18.91 years ($SD = 3.00$), and a majority of participants identified as White/Caucasian (79.00%). Half of the sample reported being currently employed (51.40%). Of those who reported employment, 98.21% were employed on a part-time basis. On average, participants politically identified as neither strongly liberal nor strongly conservative ($M = 3.98$, $SD = 1.55$; on a scale from 1 *extremely conservative* to 7 *extremely liberal*) and viewed the gender wage gap as very unfair to women on a scale from 1 *not at all unfair* to 7 *extremely unfair* ($M = 5.61$ out of 7, $SD = 1.14$). Participants received one research credit per 30 minutes of research participation.

Measures

Experimental manipulation. After completing an informed consent (Appendix A), participants were randomly assigned to one of three conditions in which they were provided information about the amount of evidence men require to conclude the gender wage gap is unfair to women (Appendix B). Specifically, participants were asked to read

a paragraph including accurate information regarding the current gender wage gap between men and women and how this gender wage gap negatively impacts women's lives. The experimental manipulation was embedded in the final two sentences of this information paragraph. The information paragraph read as follows, with the manipulation in italics:

“Recent statistics show that women who work full time, year-round, earn 80 cents for every dollar earned by men. Given this, over a lifetime of work, the average 25-year-old woman who works full time, year-round, until she retires at the age of 65 will earn \$418,800 less than the average man who works in the same occupation, doing the same job (US Census Bureau, 2016). This magnitude of the wage gap between women and men holds across a wide variety of occupations, and has great implications for women's everyday life and well-being. *Research also shows that when men are asked how much evidence of the gender economic inequality they need to conclude that inequality is unjust to women, men ask for [very little / a lot of] evidence to be convinced that the gender wage gap is unfair to women. Men reported that if [only 10% / at least 70%] of women are negatively affected by the gender wage gap, then this is unfair to women.*”

For the low standards condition, women read “...men ask for very little evidence”, whereas women in the high standards condition read “...men ask for a lot of evidence.” However, women in the control condition received no information about men's standards.

Gender identity scale (Appendix C; Miron et al., 2011). Participants completed a gender identity scale by responding to 12 statements on a seven-point Likert scale from 1 “strongly disagree” to 7 “strongly agree”. Sample items include “I feel positively about my gender group” and “Being a member of my gender group is an important reflection of who I am”. The scale demonstrated excellent internal consistency in the present study, $\alpha = .88$.

Self-esteem scale (Appendix E; Rosenberg, 1979). In order to replicate previous work examining the Rejection-Identification Model (Branscombe, 1999), participants also completed the Rosenberg Self-Esteem Inventory (Rosenberg, 1979). Participants responding to 9 statements assessing their self-esteem on a scale from 1 “strongly disagree” to 7 “strongly agree”. Higher scores on this scale indicate higher levels of self-esteem. Sample items include “I feel that I am a person of worth” and “I wish I could have more respect for myself” (R). In the present study, the internal consistency of this measure was excellent, $\alpha = .87$.

Willingness to reduce inequality (Appendix F; Miron et al., 2011). In order to assess the extent to which participants would be willing to work to reduce the inequality of the gender wage gap, they will be asked to respond to nine questions asking how willing they are to engage in a series of behaviors on a seven-point scale from 1 “not at all willing” to 7 “extremely willing”. Example questions include “How willing are you to talk to your supervisor about the unequal pay affecting you, upon discovering that you earn less than your male counterparts?” and “How willing are you to protest against the gender inequality negatively affecting women?”. It is important to note that this

willingness measure assesses behaviors that directly influence the participant personally as well as items that influence the participant on a gender-group level. The measure of willingness to reduce inequality showed excellent internal consistency ($\alpha = .90$).

Condition identification (Appendix H). Participants were asked to indicate what percentage of women should be negatively affected by the gender wage gap for men to conclude that the gender wage gap is unfair to women. Those participants who incorrectly identified their condition were excluded from subsequent analyses.

Standards of injustice (Appendices I and J; Miron et al., 2011). At this time, participants were asked to respond to 5 questions assessing their estimations of men's standards of injustice in addition to their own personal standards of injustice. For these items, participants indicated to what extent the gender wage gap must affect women in order for men to conclude the gender wage gap is unjust on varying scales (e.g., "For men to consider the existing gender wage discrepancy in the United States unfair to women, the wage gap would have to be found in what percentage of occupations?" on an 11-point scale in 10% increments from 0% to 100%). Participants then responded to the same questions by indicating the amount of evidence they themselves would require to conclude the gender wage gap is unfair to women. Both of these scales demonstrated adequate internal consistency (outgroup standards $\alpha = .82$; ingroup standards $\alpha = .88$).

Demographic questionnaire (Appendix K). Participants also provided a variety of demographic information, including age, sex, employment history, race, education, and political ideology.

Exploratory questionnaires (Appendices D & G). Additional questionnaires were included in the present study for exploratory purposes to assess wellbeing and emotional responses.

Procedure

Following approval from the Institutional Review Board, participants were recruited from the Psychology department participant pool. Once arriving to the laboratory, participants were directed to read an informed consent form. Participants then provided their consent if they wished to participate, indicating they met the eligibility requirements (female, 18 years of age or older). Participants were then provided with a paragraph containing information regarding the gender wage gap and its effects on women, in addition to information regarding the amount of evidence men require recognizing the gender economic inequality is unfair to women (i.e., the experimental manipulation).

After reading the paragraph, participants completed a Gender Identity Scale assessing women's level of identification within their gender group (Miron et al., 2011). Participants then completed the well-being (Flourishing Scale) and self-esteem scale (Rosenberg's Self-Esteem Scale). Next, participants completed the willingness to reduce inequality measure and a checklist of emotions they may have experienced after reading about the gender wage gap. Next, participants completed the condition identification questions, provided estimates of men's standards of injustice and their own standards of injustice, and completed the demographic questionnaire. After completing the measures,

participants were thoroughly debriefed, offered the opportunity to ask questions, and informed about the true purposes of the study (see Appendix L). Participants completed the study within 30-45 minutes.

Chapter 3

Results

Data Cleaning

Data were cleaned and screened in accordance with procedures described by Tabachnick and Fidell (2013). In order to detect outliers, Mahalanobis Distance was calculated for each participant when examining the primary dependent variables of interest (gender identity, self-esteem, willingness to reduce inequality, ingroup standards of injustice, outgroup standards of injustice). Those cases with a Mahalanobis Distance scores higher than the threshold MD value = 20.52 for $p < .001$ were identified as multivariate outliers and thus were excluded from analyses (2 cases; 1 case in the low standards condition and 1 case in the no information condition) (Tabachnick & Fidell, 2013). Though mean index scores for gender identity and willingness to reduce inequality were skewed, the variables were not transformed as transforming the variables worsened the skewness of the data distribution. All other assumptions for the present data (e.g., linearity; missing data) were met.

Manipulation Checks

In order to assess whether the manipulation of men's standards of injustice was effective (i.e., did women participants who were informed that men require little/high evidence indicate that they believe men require little/high evidence of the gender wage gap when completing the outgroup standards questions?), a one-way between subjects

ANOVA was conducted. The ANOVA revealed a main effect of condition, $F(2,106) = 21.40, p < .001, \eta p^2 = .29$. As shown in Table 2, women in the low standards condition believed men required significantly less evidence ($M = 3.39, SD = 1.61$) of the gender wage gap to conclude it is unfair than those in the high standards condition ($M = 5.46, SD = 1.64$), $t(106) = -5.27, p < .001, d = 1.26$. Women in the no information condition ($M = 5.82, SD = 1.77$) perceived men as setting similarly high standards as the women in the high standards condition. This suggests that the manipulation of men's standards functioned as planned, with women in the low standards condition assuming that men require the least amount of evidence. The results replicate those of previous studies (Miron et al., 2018) showing that when women are given no information about men's standards, they assume men require a very high amount of evidence to recognize the injustice of the gender wage gap.

Gender Identity

On average, participants reported identifying with their gender group to a strong extent, as evidenced by a mean of 5.64 ($SD = .81$) on a 7-point scale, with greater scores indicating greater identification with their gender group. In order to test *Hypothesis 1* (women in high or no information conditions will report higher gender identity than women in the low condition), a between subjects one-way ANOVA was conducted. This revealed a main effect of the standards manipulation on gender identity, $F(2,106) = 4.06, p = .02, \eta p^2 = .07$. Results of the planned comparisons indicated that there was a significant difference in gender identification between women told men require a low

amount of evidence and women told men require a high amount of evidence to conclude the gender wage gap is unfair to women, $t(106) = 2.30, p = .02, d = .52$, such that women in the low standards condition reported significantly *higher* gender identity ($M = 5.77, SD = .80$) than those in the high standards condition ($M = 5.35, SD = .83$). There were no significant differences between those in the low standards condition and those in the no information condition, $t(106) = -.22, p = .83, d = .07$ (see Table 2 for means and standard deviations for this measure).

Self-Esteem

Table 2 displays the means and standard deviations for this measure. Across the three experimental conditions, women reported high levels of self-esteem ($M = 5.02, SD = 1.07$). In order to test *Hypothesis 2* (that women in the high or no information conditions will report lower self-esteem than those in the low standards condition), a between subjects one-way ANOVA was conducted. Results revealed no main effect of manipulated men's standards of injustice on women's self-esteem, $F(2,106) = 1.61, p = .21, \eta^2 = .03$. The first simple planned contrast did not reveal an effect of manipulated men's standards of injustice, as there was no significant difference in self-esteem between those in the low standards condition and those in the high standards condition, $t(106) = .11, p = .92, d = .03$. There was also no significant difference in reported self-esteem between those in the low condition and those in the no information condition, $t(106) = 1.58, p = .12, d = .36$.

Willingness to Reduce Inequality

Overall, women reported being very willing to engage in behaviors aimed at reducing the gender wage gap (see Table 2 for means and standard deviations for the willingness index across conditions). *Hypothesis 3* (women in the high or no information conditions will report higher willingness to reduce inequality than women in the low condition) was examined by conducting a between subjects one-way ANOVA with simple planned contrasts. There was no main effect of men's manipulated standards on women's willingness to reduce inequality, $F(2,106) = 1.55, p = .22, \eta p^2 = .03$. Planned contrasts revealed no significant differences in willingness to reduce inequality between women in the low standards condition and those in the high standards condition, $t(106) = 1.65, p = .10, d = .43$, or between those in the low standards condition and those in the no information condition, $t(106) = .36, p = .72, d = .09$.

Additional Analyses

Standards of injustice. In order to explore the possible effect of women's perceptions of men's standards on women's own standards of injustice, items assessing these standards were included in the current study (the first six participants' questionnaire did not include this measure, as this measure was added later). Overall, women reported requiring very little evidence of the gender wage gap to state that the gender wage gap is unfair to women ($M = 2.16, SD = 1.43$). Because the condition of homogeneity of variance was violated, the Welch's F statistic was interpreted. There was a significant effect of condition on women's own standards, Welch's $F(2, 64.42) = 8.74, p < .001, \eta p^2$

= .21. Moreover, women's own standards of injustice mirrored men's standards of injustice. Women in the low standards condition reported significantly lower standards ($M = 1.50, SD = .97$) than those in the high standards condition ($M = 2.70, SD = 1.44$), $t(100) = -3.68, p < .001, d = .98$. These results suggest that women feel emboldened to set lower standards when they perceive men as being in solidarity with them.

Furthermore, women's outgroup standards of injustice (the amount of evidence women think men require to say the gender wage gap is unfair) followed this same trend. Outgroup standards of injustice were significantly and positively correlated with their own standards of injustice in the high standards condition ($r = .40, p = .02$), but were not significantly correlated in the low standards condition ($r = -.01, p = .95$). This again supports the notion that when women perceive men as rightly recognizing the injustice of the wage gap, they feel free to set their own (low) standards of injustice. Interestingly, outgroup standards were not significantly correlated with women's own standards in the no information condition ($r = -.23, p = .19$).

What predicts willingness? In order to better understand what makes women more willing to engage in behaviors to reduce the gender wage gap, three simultaneous multiple regressions were conducted (one for each condition) predicting willingness from gender identity, own standards of injustice, and outgroup (men's) standards of injustice.

In the low standards condition, the model did not significantly predict women's willingness, $R^2 = .15; F(3,30) = 2.93, p = .20, \eta p^2 = .27$. Furthermore, the predictors individually did not predict willingness in the low standards condition, $ps > .12$.

However, in the high standards condition, the model did significantly predict women's

willingness, $R^2 = .55$; $F(3,32) = 13.33$, $p < .001$, $\eta p^2 = .56$. In this condition, women's own standards negatively predicted willingness ($\beta = -.61$, $sr = -.50$, $t(35) = -4.24$, $p < .001$), perceived men's standards positively predicted willingness ($\beta = .38$, $sr = .33$, $t(35) = 2.81$, $p = .008$), and gender identity positively predicted willingness ($\beta = .29$, $sr = .26$, $t[35] = 2.18$, $p = .037$). This means that, when told men require a lot of evidence, women are more willing to act on the gender inequality when their own standards are lower, when they view men as requiring more evidence of the gender wage gap, and when they identify strongly as a woman. However, it is important to keep in mind that women set higher standards themselves when told men set high standards.

Finally, in the no information condition, the model predicting women's willingness to reduce inequality approached significance, $R^2 = .23$; $F(3,30) = 2.93$, $p = .50$, $\eta p^2 = .23$. In this condition, gender identity did positively predict willingness, $\beta = .46$, $sr = .44$, $t(34) = 2.75$, $p = .01$. Again, this suggests that increased gender identity predicts greater willingness only in the conditions where women naturally perceive men as requiring greater evidence of the gender wage gap to recognize it as unjust.

Chapter 4

Discussion

The present study investigated women's responses to gender economic inequality by experimentally manipulating the amount of evidence women believe men require to conclude that the gender wage gap is unfair to women. In other words, do women perceive the gender wage gap differently when they perceive men as being in solidarity with women as compared to perceiving men as viewing the gender wage gap as illegitimate? This allowed us to test the application of the Rejection-Identification Model (Branscombe et al., 1999) to women's responses to this prejudice by testing whether potential changes in women's self-esteem are a function of the extent to which women identify with their gender group in the face of gender-based inequality.

Gender Identification

First, according to the Rejection-Identification Model (Branscombe et al., 1999), women who were in the high standards condition (i.e., women told that men require a high amount of evidence to conclude the gender wage gap is unfair to women) should respond to this information by increasing their identification with their gender group in order to preserve and protect their self-esteem and well-being. Therefore, we would expect that women in the high standards condition would have higher levels of gender identification than those women in the low standards condition. However, in the present study, we found the opposite effect, such that women in the low standards condition

reported greater identification with their gender group. These results indicate that women who believe men require very little evidence of the gender wage gap (and thus perceive the gender wage gap the way women themselves do) feel more strongly identified with their gender group. This suggests that when women perceive men as being in solidarity with women, then women feel more strongly tied to their gender group. Interestingly, there were no differences in gender identity between the low standards condition and the no information condition, although women in the no information condition believed men required even more evidence of the gender wage gap to say it is unfair than those in the high standards condition. It is possible that this difference is a function of these women explicitly being told the amount of evidence men require, whereas women in the no information condition come to this conclusion on their own. It is also possible that women distanced themselves from their gender group when this group was devalued by men (the advantaged group in society). For instance, when an individual perceives their group membership as unchangeable (as is often the case with gender), they may actively respond by denying the relevance of the group or its importance (as cited in Matheson & Cole, 2004). This denial of group importance could conceivably result in the lower gender identity in the high standards condition. However, this discrepancy in results warrants further investigation and reproduction through future studies.

Women's Resilience in the Face of Prejudice

Across the three conditions in the present study, women reported very high levels of self-esteem. Interestingly, these results are also in contrast what is predicted by the

Rejection-Identification Model (Branscombe et al., 1999), which posits that women who perceive men as requiring a high amount of evidence to recognize the injustice of the gender wage gap would report the lowest self-esteem. These results could suggest that women respond to the gender wage gap with resilience, as demonstrated by the maintenance of high self-esteem. This could also suggest that men's standards of injustice are not connected to women's self-esteem.

However, in making these conclusions, it is important to note that because there was no measure of self-esteem prior to women reading information regarding gender economic inequality, we cannot say for certain whether women's reports of self-esteem changed or even if women maintained high self-esteem. It could be that simply reading about gender economic inequality led women to respond by enhancing their self-esteem. Alternatively, it could also be that there was a ceiling effect in the present study and was no room for any measurable differences in self-esteem between conditions.

Women's Standards of Injustice

Replicating previous work, women themselves required very little evidence of the gender wage gap to conclude it is unfair to women. However, women's own standards of injustice were related to manipulated men's standards of injustice. In the present study, women's standards mirrored their perceptions of men's standards (i.e., women's own standards reflected the manipulated standards of their condition). For instance, when women perceived men as setting low standards, women also set lower standards themselves than when women perceived men as setting high standards. This again points

to a story of solidarity in which women feel the freedom to set their own standards when they perceive men as standing in solidarity with women affected by the gender wage gap (e.g., perceive men as also requiring very little evidence of the gender wage gap to recognize its unfairness). Additionally, women's beliefs about men's standards reflected their own standards only in the high standards condition (women perceived men as requiring more evidence and thus required more evidence themselves) but not in the low standards condition, where women set lower standards than they believed men required. This again points to the perception of men's solidarity as a driving force behind women's reactions to gender economic inequality.

When Are Women More Willing to Reduce Inequality?

A critical potential outcome of this research program is understanding when women are most willing to work to reduce gender economic inequality and how we can promote these behaviors (Miron et al., 2011). In the present study, manipulated men's standards of injustice had no observable effect on women's willingness to reduce inequality. However, these results warrant further investigation. It could be that, as young women in the United States, the current political and cultural climate of standing up for women's rights (e.g., the Women's March on Washington, Time's Up campaign, Me Too movement) created a ceiling effect. Women may already be very willing to reduce the gender wage gap prior to participating in this study, and thus, measurable differences between the experimental conditions in which women increase their willingness in response to prejudice do not exist.

We also explored the ways in which the other variables in this study influenced women's willingness to reduce inequality. None of the variables (gender identity, ingroup standards, outgroup standards) influenced willingness when women were told that men require very little evidence of the gender wage gap. Again, this indicates the importance of men's solidarity with women in women feeling the freedom to respond to gender economic inequality in their own way. However, when women believe men need greater evidence to say the gender wage gap is unfair, higher gender identity was associated with higher willingness on behalf of women to reduce the gender wage gap. This is not surprising, as women who feel that their gender group is more important to themselves and central to their identity should be more inclined to improve their group's status in society. When women were told men required greater evidence of the wage gap, women who viewed the gender wage gap as less legitimate (who shared the same opinion with men) were less willing to reduce to the gender wage gap as well. Broadly, this lends minimal support to the Rejection-Identification Model (Branscombe et al., 1999) as the study was designed to test. This does suggest, however, that when applying the Rejection-Identification Model to gender economic inequality, we should include women's own standards of injustice and their outgroup standards of injustice (i.e., the amount of evidence women believe men require to conclude the gender wage gap is unfair) in our models.

Limitations, Considerations and Future Directions

The present study provides valuable insight into the dynamics between men and women's recognition of the illegitimacy of gender economic inequality and women's responses to this inequality. However, a number of limitations to the present study must be noted. First, the sample consisted solely of undergraduate women, half of which were unemployed at the time of the study. This questions the validity of the present findings and their greater applicability to women in the workforce. It is likely that women who have spent time in the professional workforce and have experienced gender economic inequality first hand would react differently to the experimental manipulation and thus respond differently than these undergraduate women on the measures of interest. Thus, reproducing these results, first with undergraduate women and later with a more diverse sample of women in the workforce, is essential in determining the validity of these findings.

Furthermore, the current climate in the United States had the potential of influencing these findings in unknowable ways. Women in the United States are currently undergoing what could be called a second women's rights movement, in which women are standing up for and voicing their concerns over sexual harassment in the workforce, a lack of representation and equality in specific fields (e.g., STEM fields), and advocating for women's healthcare rights. Thus, results of the current study should be interpreted while keeping this political and economic climate in mind.

Third, it is possible within the present study that the original Rejection-Identification Model (Branscombe et al., 1999) was not tested appropriately. In the

original studies exploring this process and other conceptual replications (Schmitt & Branscombe, 2002), negative outcomes in participants' lives (e.g., the loss of a job, mistreatment by a professor) were attributed to prejudice on the part of the advantaged group. However, in the present study, the manipulation did not clearly manipulate attributions to prejudice or indicate that the persistence of the gender wage gap is a result of men's prejudice-based actions. Thus, the present study may have tested only a part of the Rejection-Identification Model (Branscombe et al., 1999; e.g., do women identify more with their gender group when they perceived men requiring a lot of evidence to conclude the gender wage gap is unfair?).

Finally, within the current study a number of significance tests were considered to be nonsignificant, despite producing large effect sizes. For instance, there was no significant difference in self-esteem between those in the low standards condition and the no information condition, despite a notable effect size of $d = .36$. Additionally, though there was a moderate effect of condition on willingness ($d = .43$), there was not a significant difference in willingness to reduce inequality between those in the high and low conditions. A post-hoc power analysis indicated that the current study was vastly underpowered to detect effects of this size through the use of NHST (power of .44 and .57, respectively). According to effect sizes, there is considerable support for *Hypothesis 2*, such that there was a small-to-moderate effect of condition on self-esteem, with women in the low condition reporting higher self-esteem than those in the no information condition (despite there being a nonsignificant effect). However, when interpreting the effect size for willingness to reduce inequality, there is moderate support for the opposite

effect of condition on willingness, such that those in the high condition reported lower willingness than those in the low condition. This evidence suggests that there may be a distancing of the self from the gender group (depressed gender identity) when women are exposed to sexism, which may result in decreased self-esteem and lower willingness to work to reduce inequality. However, these results, which were inconsistent across conditions, deserve further exploration.

Conclusions

The significant findings in the present study are primarily serendipitous – our predictions went (mostly) unsupported while our exploratory analyses yielded unpredicted, yet significant, results. This painted a narrative in which we determined that men’s solidarity with women is perhaps one of the most important variables when it comes to women’s responses to the gender wage gap. However, solidarity is only important when it comes to women’s judgments about the legitimacy of the gender wage gap and their willingness to respond to this inequality with behaviors designed to minimize the gender wage gap. Solidarity has been deemed an important variable in mobilizing men to reduce gender inequality as well (Subašić, Hardacre, Elton, Branscombe, & Reynolds, 2018). This series of studies demonstrated that men’s intentions to act on gender inequality increase when they are told men are effective agents of change versus governmental policy (Experiment 1; Subašić et al., 2018). These studies also show that when gender equality is framed as being a problem for both men and women to resolve, these action intentions also increase (Experiment 2), though the

intention is greatest when these messages come from men (Experiment 3; Subašić et al., 2018). Though these studies solely examined the importance of solidarity in mobilizing men to take action against gender inequality, the results, combined with the results of the present study, provide evidence that solidarity between genders may be an effective means of tackling issues related to gender inequality, including the gender wage gap. The findings of the present study may be used to further explore the dynamics influencing the re-negotiation of gender economic inequality. These dynamics may include miscommunication between men and women and a lack of appropriate knowledge of the standards of injustice that each gender sets when recognizing the illegitimacy of gender economic inequality. By reducing miscommunication and increasing knowledge, a re-negotiation of gender economic inequality may begin to take place in the United States

Tables

Table 1.

Predictions for each experimental condition with simple planned contrast coding.

	Low Standards	High Standards	Control
Group Identification	Low	Very High	High
Self-Esteem	High	Low	Low
Willingness to Reduce Inequality	Low	Very High	High
Contrast A	1	-1	0
Contrast B	1	0	-1

Table 2.
Means and standard deviations for index scores by experimental condition.

Index	Low Standards	High Standards	No Information
Gender Identification	5.77 (.80) _a	5.35 (.83) _b	5.82 (.73) _{ab}
Willingness	5.40 (.93) _a	4.96 (1.09) _a	5.30 (1.33) _a
Self-Esteem	5.16 (1.03) _a	5.13 (.99) _a	4.76 (1.16) _a
Women's Standards	1.50 (.97) _a	2.70 (1.44) _b	2.21 (1.55) _b
Outgroup Standards	3.39 (1.61) _a	5.46 (1.64) _b	5.82 (1.77) _b

Note. $N = 109$ women for all measures except women's standards of injustice ($N = 103$). Different subscripts reflect significant row mean differences. A mean index score for the women's standards and outgroup standards items may be applied to each of the individual items in the scale (e.g., a mean of 5.46 applied to item 4 of the outgroup standards scale indicates that women perceive men as requiring the gender wage gap to continue for roughly 22.5 more years in order to be considered unfair to women).

Figures

Figure 1. The Rejection-Identification Model depicting the mediational role of group identification on the effects of attributions to prejudice on self-esteem.

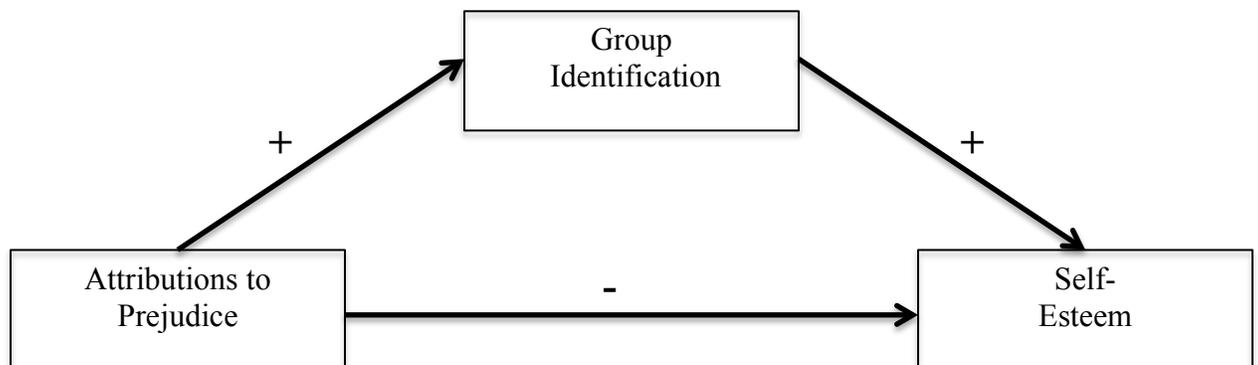
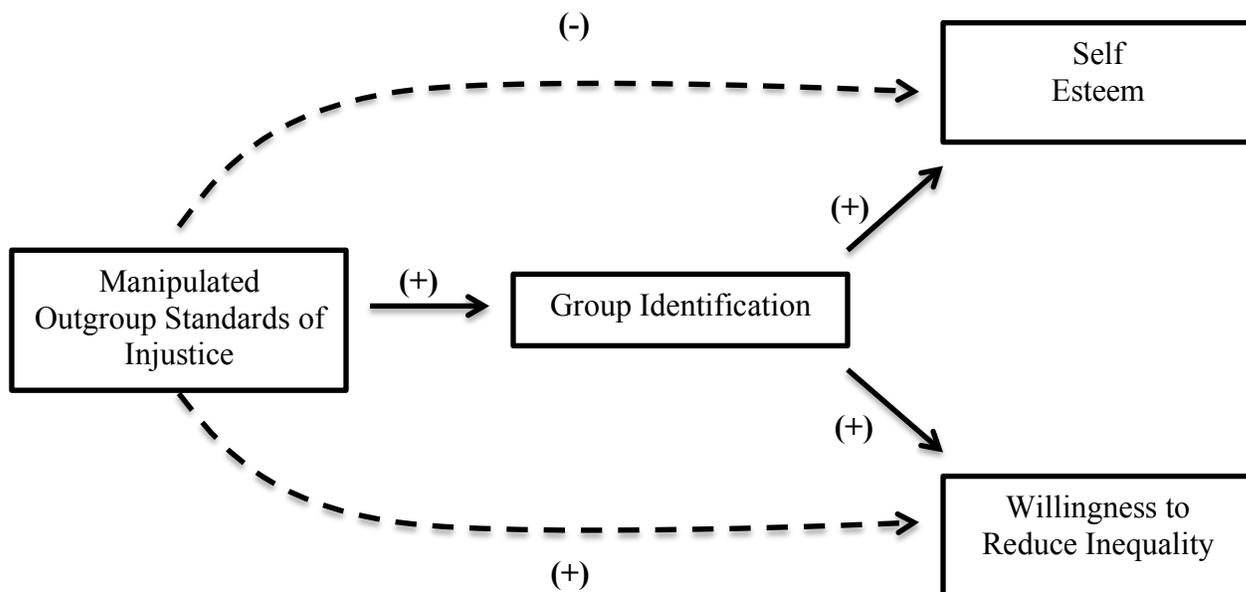


Figure 2. A visual representation of the proposed process model demonstrating the predicted meditational role of group identification on the relationships between manipulated outgroup standards of injustice and (a) self-esteem and (b) willingness to reduce inequality.



APPENDIX A
Informed Consent Form

INFORMED CONSENT FORM

You are invited to participate in a survey conducted by a team of researchers at the University of Wisconsin Oshkosh under the supervision of Dr. Anca Miron. This project is on file with the Institutional Review Board at University of Wisconsin Oshkosh (Study #972981).

Why is this study being done? This study is being conducted to learn more about attitudes toward the gender economic situation in the United States.

What do you want me to do? You will be asked to take part in a survey that will take approximately 30 minutes. You will be asked questions about your background, current employment status, knowledge and opinion regarding the gender wage gap, and demographic information.

Are there any benefits to participating? Yes. You will receive 1 research credit through your SONA account for participating. In addition, participants will receive information regarding current economic trends and inequality in the U.S. You will also be supporting student research at the University of Wisconsin Oshkosh. Additionally, you can choose to receive a summary of the findings of this research by providing your e-mail on this form.

Are there any risks? Some information and questions you will be asked may cause negative emotions. If you do feel uncomfortable, you can stop the study or skip any questions that make you uncomfortable. Participation in the study is completely voluntary and you may stop answering questions without the loss of research credit.

Are my answers anonymous? Yes. Though you provide your name on the consent form, those forms are kept completely separate from the data. Your name or other identifiers are not included in the data in any way.

Who will have access to my data? Only the primary investigator and lead researcher will have access to your information and answers. The informed consent that you will complete will not be attached to your answers from the survey. The anonymized data file will only be shared with approved research assistants and will not be viewed or used outside of the primary investigator's secure research office. All data will be password-protected and locked in a secure research office for seven years as per ethical process. A summary of the overall results across all participants may be used in possible future presentations and/or publications of the survey data.

How can I get more information about this research project? If you have any questions before, during, or after the study, or if you would like to learn more about our research, please feel free to contact the primary researcher Elle Moore (mooree70@uwosh.edu) or principal investigator Anca Miron (mirona@uwosh.edu). If you would prefer to speak with an individual who is not directly involved in this research, please contact the Robert Roberts, University of Wisconsin-Oshkosh Institutional Review Board For Protection of Human Participants) at 920-424-1415.

By signing this form, I am agreeing to the following statement: I have read the above description and volunteer to participate in this study. I understand that I can decide to discontinue my participation or not to provide any personal information at any time without question and without penalty. **I agree that I am female, at least 18 years of age, and am legally able to consent to participate in this study.**

PRINTED NAME

SIGNATURE

DATE

Email address (if interested in receiving results of the current study):

APPENDIX B

Gender Wage Gap Information

GENDER WAGE GAP INFORMATION

This study explores attitudes toward current economic trends and inequality in the United States. Below you will find some factual information about the existing gender wage gap in the United States. Later on in the study, we will ask you to answer some questions about the information from this paragraph, so please read carefully.

Recent statistics show that women who work full time, year-round, earn 80 cents for every dollar earned by men. Given this, over a lifetime of work, the average 25-year-old woman who works full time, year-round, until she retires at the age of 65 will earn \$418,800 less than the average man (US Census Bureau, 2016). This magnitude of the wage gap between women and men holds across a wide variety of occupations, and has great implications for women's everyday life and well-being.

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Research also shows that when men are asked how much evidence of the gender economic inequality they need to conclude that inequality is unjust to women, men ask for very little evidence to be convinced that the gender wage gap is unfair to women. Men reported that if only 10% of women are negatively affected by the gender wage gap, then that is unfair to women.

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Research also shows that when men are asked how much evidence of the gender economic inequality they need to conclude that inequality is unjust to women, men ask for a lot of evidence to be convinced that the gender wage gap is unfair to women. Men reported that if at least 70% of women are negatively affected by the gender wage gap, then that is unfair to women.

APPENDIX C

Gender Identity Scale (Miron et al., 2011)

Please indicate **your agreement or disagreement with the following statements** by using the scale below and by placing a number in front of each of the items:

1	2	3	4	5	6	7
Strongly Disagree			Neither Agree nor Disagree			Strongly Agree

_____ I feel positively about my gender group.

_____ I value being a member of my gender group.

_____ I am proud to be a member of my gender group.

_____ Being a member of my gender group gives me a good feeling.

_____ I have a lot in common with other members of my gender group.

_____ I often think of myself in terms of my gender group.

_____ Being a member of my gender group is a meaningful part of who I am.

_____ Being a member of my gender group is important to my sense of what kind of a person I am.

_____ I identify with other member of my gender group.

_____ I feel strong ties with other members of my gender group.

_____ Overall, being a member of my gender group has very little to do with how I feel about myself. (Reverse coded)

_____ Being a member of my gender group is an important reflection of who I am.

APPENDIX D

Flourishing Scale (Diener et al., 2009)

APPENDIX E

Rosenberg Self-Esteem Scale (Rosenberg, 1979)

Please respond by indicating your level of agreement with the following ten statements using the following scale, from 1 “strongly disagree” to 7 “strongly agree”:

1	2	3	4	5	6	7
Strongly Disagree			Neither Agree nor Disagree			Strongly Agree

- ___ On the whole, I am satisfied with myself.
- ___ At times, I think I am no good at all.
- ___ I am able to do things as well as most other people.
- ___ I feel I do not have much to be proud of.
- ___ I certainly feel useless at times.
- ___ I feel that I am a person of worth.
- ___ I wish I could have more respect for myself.
- ___ All in all, I am inclined to think that I am a failure.
- ___ I take a positive attitude toward myself.

APPENDIX F

Willingness to Reduce Inequality (Adapted from Miron et al., in preparation-b)

APPENDIX G
Emotions Checklist

Directions: Please indicate for each of the emotions below the extent to which you experienced each of these **feelings toward women when you were reading the information about the wage gap that women are experiencing**. Do not worry if you were not experiencing many of these feelings; only a few may apply to the situation. Please be sure to indicate a response for each item.

	Not At All		Moderately			Extremely	
	1	2	3	4	5	6	7
1. happy	1	2	3	4	5	6	7
2. sympathetic	1	2	3	4	5	6	7
3. sad	1	2	3	4	5	6	7
4. interested	1	2	3	4	5	6	7
5. softhearted	1	2	3	4	5	6	7
6. tender	1	2	3	4	5	6	7
7. warm	1	2	3	4	5	6	7
8. moved	1	2	3	4	5	6	7
9. protective	1	2	3	4	5	6	7
10. compassionate	1	2	3	4	5	6	7
11. distressed	1	2	3	4	5	6	7
12. upset	1	2	3	4	5	6	7
13. disturbed	1	2	3	4	5	6	7
14. heavy-hearted	1	2	3	4	5	6	7

	Not At All		Moderately			Extremely	
	1	2	3	4	5	6	7
15. worried	1	2	3	4	5	6	7
16. concerned	1	2	3	4	5	6	7
17. sorrowful	1	2	3	4	5	6	7
18. joyful	1	2	3	4	5	6	7
19. outraged	1	2	3	4	5	6	7
20. angry	1	2	3	4	5	6	7
21. helpless	1	2	3	4	5	6	7
22. anxious	1	2	3	4	5	6	7
23. preoccupied	1	2	3	4	5	6	7
24. revolted	1	2	3	4	5	6	7
25. satisfied	1	2	3	4	5	6	7
26. depressed	1	2	3	4	5	6	7

APPENDIX H
Condition Identification

Please refer to the information paragraph you read about the gender wage gap when answering the following questions:

1. How much evidence do men require in order to conclude that the gender wage gap is unfair to women?

___ No information was provided

___ Little evidence

___ Moderate evidence

___ A lot of evidence

2. How much more money do men earn over a lifetime, compared to women? Please write a dollar amount in the space provided: \$ _____

3. According to men, what percentage of women should be negatively affected by the gender wage gap for men to conclude that the gender wage gap is unfair to women?

___ 10%

___ 70%

APPENDIX I

Estimated Outgroup Standards of Injustice (Miron et al., 2011)

There are no right or wrong answers for the following questions; we are simply interested in your perception of men's opinions on these matters. Please answer the questions in the order given.

1. **For men** to consider the existing gender wage discrepancy in the United States **unfair** to women, the wage gap would have to be found in what percentage of occupations? (check one)

- 0% of occupations
- 10% of occupations
- 20% of occupations
- 30% of occupations
- 40% of occupations
- 50% of occupations
- 60% of occupations
- 70% of occupations
- 80% of occupations
- 90% of occupations
- 100% of occupations

2. **For men** to consider the existing gender wage discrepancy in the United States **unfair** to women, the percentage of women who are economically disadvantaged, compared to the men occupying the same positions would have to be (check one):

- 0% of women
- 10% of women
- 20% of women
- 30% of women
- 40% of women
- 50% of women
- 60% of women
- 70% of women
- 80% of women
- 90% of women
- 100% of women

3. **For men** to consider the existing gender wage discrepancy in the United States **unfair** to women, over a lifetime women would have to be earning salaries that are: (check one)

- 0% less than those of men
- 10% less than those of men
- 20% less than those of men
- 30% less than those of men
- 40% less than those of men
- 50% less than those of men
- 60% less than those of men
- 70% less than those of men
- 80% less than those of men
- 90% less than those of men
- 100% less than those of men

4. **For men** to consider gender wage discrepancy in the United States **unfair**, how long would the gender wage gap have to continue: (check one)

- for less than 5 years
- for 5 more years
- for 10 more years
- for 15 more years
- for 20 more years
- for 25 more years
- for 30 more years
- for 35 more years
- for 40 more years
- for 45 more years
- for more than 45 years

5. **For men** to consider the existing gender wage discrepancy in The United States **unfair** to women, the percentage of women whose well-being and lives are negatively affected by this discrepancy would have to be (check one):

- 0% of women
- 10% of women
- 20% of women
- 30% of women
- 40% of women
- 50% of women
- 60% of women
- 70% of women
- 80% of women
- 90% of women
- 100% of women

APPENDIX J

Standards of Injustice (Miron et al., 2011)

There are no right or wrong answers for the following questions; we are simply interested in your own opinions on these matters. Please answer the questions in the order given.

1. **For you** to consider the existing gender wage discrepancy in the United States **unfair** to women, the wage gap would have to be found in what percentage of occupations? (check one)

- 0% of occupations
- 10% of occupations
- 20% of occupations
- 30% of occupations
- 40% of occupations
- 50% of occupations
- 60% of occupations
- 70% of occupations
- 80% of occupations
- 90% of occupations
- 100% of occupations

2. **For you** to consider the existing gender wage discrepancy in the United States **unfair** to women, the percentage of women who are economically disadvantaged, compared to the men occupying the same positions would have to be (check one):

- 0% of women
- 10% of women
- 20% of women
- 30% of women
- 40% of women
- 50% of women
- 60% of women
- 70% of women
- 80% of women
- 90% of women
- 100% of women

3. **For you** to consider the existing gender wage discrepancy in the United States **unfair** to women, over a lifetime women would have to be earning salaries that are: (check one)

- 0% less than those of men
- 10% less than those of men
- 20% less than those of men
- 30% less than those of men
- 40% less than those of men
- 50% less than those of men
- 60% less than those of men
- 70% less than those of men
- 80% less than those of men
- 90% less than those of men
- 100% less than those of men

4. **For you** to consider gender wage discrepancy in the United States **unfair**, how long would the gender wage gap have to continue: (check one)

- for less than 5 years
- for 5 more years
- for 10 more years
- for 15 more years
- for 20 more years
- for 25 more years
- for 30 more years
- for 35 more years
- for 40 more years
- for 45 more years
- for more than 45 years

5. **For you** to consider the existing gender wage discrepancy in The United States **unfair** to women, the percentage of women whose well-being and lives are negatively affected by this discrepancy would have to be (check one):

- 0% of women
- 10% of women
- 20% of women
- 30% of women
- 40% of women
- 50% of women
- 60% of women
- 70% of women
- 80% of women
- 90% of women
- 100% of women

APPENDIX K

Demographic Questionnaire

DEMOGRAPHIC QUESTIONNAIRE

1. What is your sex?
 Male
 Female
 Other / Self-identify; please specify: _____

2. What is your current gross annual salary (before taxes and other deductions)?
 _____ (gross annual salary) OR _____ (gross monthly salary)
 Not applicable; I am not currently employed.

3. What is your current job title? _____
 Not applicable; I am not currently employed.

4. Is your salary negotiable?
 Yes
 No
 Not applicable; I am not currently employed.

5. Did you negotiate your salary when you first started your current job?
 Yes
 No
 Salary was not negotiable
 Not applicable; I am not currently employed.

6. What is the size of the company or business you are currently working for (in number of employees)? _____
 Not applicable; I am not currently employed.

7. Is your position managerial or non-managerial?
 Managerial
 Non-Managerial
 Not applicable; I am not currently employed.

8. If managerial, how many people do you currently manage? _____
 Not applicable; I am not currently employed.

9. What is the gender proportion in your job position at your current workplace?
 % men
 % women
 Not applicable; I am not currently employed.

10. Do you have access to information about salary discrepancy?
 Yes
 No
11. What is your age? _____ years
12. For how many years have you been working? Please write down the total number of years.
 _____ years
 Not applicable; I have never been employed.
13. Do you currently work full-time or part-time?
 Full-time
 Part-time
 Not applicable; I am not currently employed.
14. What is your ethnicity?
 African American/Black
 Asian American/Asian
 European American/White/Caucasian
 Hispanic/Latino(a)
 Indian or Pakistani
 Middle Eastern
 American Indian/Alaskan Native
 Multi-ethnic
 Other
15. What is your education level?
 Some high school
 High school/GED
 Some college
 Bachelor's Degree
 Master's Degree
 Advanced graduate work or Ph.D.
 Not sure
16. Are you an U.S. citizen?
 Yes
 No

APPENDIX L
Debriefing Form

DEBRIEFING FORM

Before I tell you the details about what we were examining, I would like to ask you a few questions.

What do you think this study was about? Did you suspect that there was more to the study than we initially told you?

Were you suspicious of anything during the study? What was it that made you suspicious?

Did you understand the information we told you about the gender wage gap? Was anything about that information paragraph confusing?

We are interested in understanding how women respond to the gender wage gap and the amount of evidence they believe men require to recognize the injustice of the gender wage gap. This final portion of the study will explain more in-depth what was done in the current study. We will also ask you to respond to a few questions to be certain that you understand what information was true and what information was false in this study.

In this study, we are interested in your reactions to gender wage inequality based on the amount of evidence you were led to believe that men require to conclude the gender wage gap is unfair to women. Recall the paragraph you read at the beginning of the study regarding the gender wage gap. Please identify the condition you were in.

I was told men require a low amount of evidence (10%).

I was told men require a high amount of evidence (70%).

I wasn't told any information about the amount of evidence men require / do not remember

Did the amount of evidence you were told men require to conclude the gender wage gap is unfair seem accurate to you? Why or why not?

Please keep your condition in mind as we tell you more about the study. First, we are seeking **to determine how women respond to inequality – do women respond differently when women are told men require little evidence vs when told men require a lot of evidence?** Secondly, we are looking to **understand whether the extent to which a woman identifies with and considers her gender group to be important helps alleviate some of the negative psychological effects of the gender wage gap**, as previous research shows prejudice and discrimination have negative effects on one's

well-being. Additionally, we are hoping to **understand whether the extent to which women identify with their gender group makes women more willing to reduce the gender wage gap.**

Previous research has found that men require more evidence than women to say the gender wage gap is unfair; however, women believe that men require more evidence than men themselves report requiring.

In this study, we predict that, when told men require a high amount of evidence, women will identify more with their gender group (consider it more important to them), which will help alleviate and offset some of the negative psychological consequences of the gender wage gap and make them more willing to reduce this inequality. **The results will help us understand why women overestimate the amount of evidence men require to conclude the gender wage gap is unfair and how to improve cross-gender communications regarding the gender wage gap.** However, as we mentioned before, some of you were given false information during this study.

If you were in the condition in which you were told men require a **high** amount of evidence, this information was true. Based on our prior research findings, men **do** require more evidence of the gender wage gap than women to conclude that the gender wage gap is unfair to women. For example, men think that 40 % of women should have salaries lower than the salaries of equally qualified men whereas women may ask for 25% of women to have lower salaries in order to conclude the wage gap is unfair.

If you were in the condition in which you were told men require a **low** amount of evidence, this information was **false**. In fact, men require a higher amount of evidence than women to conclude that the gender wage gap is unfair to women.

Now, please answer one final question for us.

Do men require more, less, or the same evidence as women to conclude that the gender wage gap is unfair to women?

Lower amount of evidence

Same amount of evidence

Higher amount of evidence

Thank you again for taking the time to complete this survey. If you have any questions or comments, please feel free to contact the lead researcher Elle Moore (mooree70@uwosh.edu) or the Principal Investigator, Dr. Anca Miron, at mirona@uwosh.edu. Her information is also included on your copy of the consent form. This study is on file with the University of Wisconsin Oshkosh Institutional Review Board (Study #972981). Thank you for your participation.

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