

THE ROLE OF THREAT AND PERSPECTIVE TAKING ON ESTIMATIONS OF OUT-GROUP STANDARDS OF INJUSTICE

By Danica J. Kulibert

The present experiment aimed to assess the effects of perspective taking and perceived threat to an in-group's economic resources on estimated out-group standards of injustice. Out-group standards of injustice are defined as the amount of evidence of inequality in-group members estimate that an out-group needs in order to conclude that a specific inequality is unfair (Miron et al., 2017a). Prior research suggests that inequality between social groups remains difficult to change due to the differences in standards of injustice set by advantaged and disadvantaged groups when evaluating existing inequality (Miron et al., 2011). Work by Miron et al. (2017b) suggests that the discrepancy between men's and women's injustice standards regarding the gender wage gap may be due to the fact that acknowledging the illegitimacy of their in-group advantages may be threatening to men. In order to test this explanation, the current study assessed how perceived threat to one's in-group influences men's estimated out-group standards regarding the gender wage gap by randomly assigning men to either take women's perspective or remain objective about women's situation and to either be exposed to high levels versus low levels of threat via potential policies to resolve the gender wage gap. Results from the current study demonstrate the importance of gender group identification on men's estimation of women's standards. There was also a significant 3-way interaction between gender group identification, the perspective-taking manipulation, and the threat level manipulations on estimated outgroup standards. Specifically, men with high gender group identification in the low threat condition reported lower out-group standards when taking women's perspective than men with high gender group identification who were asked to stay objective. These results advance the literature on intergroup relations by demonstrating the importance of group identification in addressing potential policy changes.

THE ROLE OF THREAT AND PERSPECTIVE TAKING ON ESTIMATIONS OF
OUT-GROUP STANDARDS ON INJUSTICE

by

Danica Kulibert

A Thesis Submitted
In Partial Fulfillment of the Requirements
For the Degree of

Master of Science-Psychology
Cognitive & Affective Science

at

The University of Wisconsin Oshkosh
Oshkosh WI 54901-8621

May 2017

COMMITTEE APPROVAL

Anca Miron Advisor

5/22/2017 Date Approved

Elyse Stahl Member

05/22/2017 Date Approved

[Signature] Member

May 22, 2017 Date Approved

PROVOST AND VICE
CHANCELLOR

Laurel Burns^{CF}

06/07/2017
Date Approved

FORMAT APPROVAL

W Jaci Hoffmann

5/15/17
Date Approved

ACKNOWLEDGEMENTS

A special thanks goes out to Elle Moore for keeping my sanity in check and never being afraid to speak her mind. Also, a special thanks to Dr. Ashley Thompson for always pushing me to be the best student I can be and providing me the opportunity to grow as a researcher. Finally, thank you to Dr. Anca Miron for believing in me as an undergraduate student and for mentoring me as a graduate student. I could not have made it these last two years without you.

TABLE OF CONTENTS

LIST OF TABLES	vi
LIST OF FIGURES	vii
INTRODUCTION	1
In-Group Membership	2
How In-Group and Out-Group Members Interact	4
Perspective Taking and Intergroup Relations	5
Threat and Intergroup Interactions.....	8
Why Threat Moderates Perspective Taking Effects	11
Gender Wage Gap and Intergroup Interactions	14
Gender Differences in Perceptions of Injustice Regarding the Gender Wage Gap	15
Strategies to Address Discrepancy in Perceptions of the Gender Wage Gap	17
OVERVIEW OF THE PROPOSED STUDY AND HYPOTHESES	21
Hypotheses Set 1	22
Hypotheses Set 2.....	23
Hypotheses Set 3.....	23
Hypotheses Set 4.....	24
METHOD	25
Participants.....	25
Design	25
Procedure	26
Manipulation Checks	30
STATISTICAL ANALYSES	31
Hypotheses Set 1	31
Hypotheses Set 2.....	31
Hypotheses Set 3.....	31
Moderation Hypotheses	32
RESULTS	33
Manipulation Checks	33
Estimated Out-Group Standards	34

TABLE OF CONTENTS, continued

Willingness to Help the Out-Group	37
Perceptions of the Gender Wage Gap.....	38
DISCUSSION	41
Estimated Out-Group Standards	41
Willingness to Help the Out-Group	43
Perceptions of the Gender Wage Gap.....	44
IMPLICATIONS AND LIMITATIONS	46
Implications for Current Study	46
Limitations and Future Directions	46
APPENDICES	58
Appendix A: Recruitment Posting Mechanical Turk.....	58
Appendix B: Informed Consent Form	60
Appendix C: Gender Wage Gap Cover Story	63
Appendix D: Demographics Including Current Employment Information ..	65
Appendix E: Potential Policy Change (Low Threat Condition and High Threat Condition	68
Appendix F: Estimated Out-Group Standards (Stay-Objective and Perspective-Taking Conditions) (Miron et al., 2017a)	70
Appendix G: Willingness to Help the Out-Group (Miron et al., 2017a)	74
Appendix H: Perceptions of the Gender Wage Gap (Miron et al., 2017a)....	76
Appendix I: Manipulation Checks for Perspective-Taking and Threat Manipulations	78
Appendix J: Gender Group Identification Scale (Miron et al., 2011)	80
Appendix K: Debriefing Form.....	82
REFERENCES	84

LIST OF TABLES

Table 1.	Responses by Low and High Identifiers to Different Kinds of Threat (adapted from <i>Branscombe et al., 1999</i>)	50
Table 2.	Planned Comparison for Estimated Out-Group Standards, Willingness to Help the Outgroup, and Perceptions Regarding the Gender Wage Gap.....	51
Table 3.	Means and Standard Deviations for Dependent Variables	52
Table 4.	Summary of Regression Analysis for Estimated Outgroup Standards.....	53
Table 5.	Summary of Regression Analysis for Willingness to Help the Out-Group.....	54
Table 6.	Summary of Regression Analysis for Perceptions of the Gender Wage Gap.....	55

LIST OF FIGURES

Figure 1.	Simple Slopes for High Gender Group Identification	56
Figure 2.	Simple Slopes for Low Gender Group Identification	57

Introduction

Although today's society has progressed in many ways, gender group inequality is still present across social contexts (Miller, 2016). Whether it be within one's personal or professional life, the economic inequality between genders negatively impacts both men and women (Blader & Rothman, 2014; Miron, Branscombe, Olson, & Agnello, 2017a; Miron, Branscombe, & Schmitt, 2006). One explanation for why gender group inequality seems so difficult to resolve relates to the complexity of intergroup interactions (Ehrlinger, Gilovich, & Ross, 2005; Shnabel & Nadler, 2008). When different social groups (e.g., men and women) interact, group members interpret the intergroup interactions differently, depending on the different aspects relating to the interaction (e.g., threat, collective guilt, empathy, or pity; Bruneau & Saxe, 2012; Falomir-Pichastor & Frederic, 2012; Gaertner & Dovidio, 2005). For men and women, the inability to take the other gender's point of view regarding the gender wage gap, may lead to miscommunication about gender inequality and its effects on each social group.

The gender wage gap is defined as the wage discrepancy between men and women, in which, regardless of other factors (e.g., occupation, age, experience, education, childcare), a woman makes eighty-two cents to every dollar a man makes (Wood, Corcoran, & Courant, 1993). The misunderstandings between men and women regarding gender inequality may result in unresolved issues and perceived lack of solutions regarding the gender wage gap. The current study aimed to assess whether threat to the in-group's values influence how men perceive women's views regarding the

gender wage gap between men and equally qualified women and the role of perspective taking (i.e., the process of taking another's point of view; Batson, 2009; Bruneau & Saxe, 2012) on this relationship.

In-Group Membership

Group identification is an important and often influential aspect of one's self-identity. Being a part of a social group can increase social influence exerted by the group onto its members and can enforce social norms throughout a person's life (Doosje, Branscombe, Spears, & Manstead, 2006; Mackie, Devos, & Smith, 2000; Tajfel & Turner, 1986). In-groups (i.e., different social groups an individual is a member of; Tajfel, 1978) are where individuals learn what actions and behaviors are appropriate and when these behaviors should or should not be used; it is where individuals will start understanding how different groups interact with each other (Mackie et al., 2000). These group memberships drive group members' behaviors, as well as their interactions both within and outside of the social group.

Social Identity Approach. Research focusing on in-group membership and self-identity as a method of understanding group processes in social psychology led to an overall psychological approach termed the Social Identity Approach (Tajfel, 1978). The Social Identity Approach is made up of two separate theories regarding in-group membership and intergroup interactions: Social Identity Theory and Self-Categorization Theory (Hornsey, 2008).

Social Identity Theory, first proposed as a model for understanding group

identification in the 1970's, refers to the impact of social context on different intergroup relations (Tajfel, 1978; Tajfel & Turner, 1979). By assigning participants into random groups, arbitrarily labeling those groups, and assessing how participants interacted with both members of the same social group and members of the other social group (i.e., minimal group paradigm; Tajfel, 1978), researchers discovered a tendency for participants to favor individuals who were in the same group as themselves (i.e., in-group membership) over members in a different group (i.e., out-group members). The theory focuses on the premise that group members derive positive self-esteem from their membership in the in-group and are motivated to protect the in-group as a means to improve and protect their own self-esteem. Methods for maintaining positive social identity when the integrity of one's in-group is threatened include leaving the in-group, comparing in-group to a socially lower out-group, and focusing on only positive aspects of one's in-group (Tajfel & Turner, 1979; Turner & Brown, 1978).

Although related to Social Identity Theory, Self-Categorization Theory's main difference is that the theory assesses how self-concept may be influenced by other in-group members (Turner et al., 1987). Turner and colleagues (1987) theorized that self-identity is separated into three different levels and together these concepts shape individuals' view of themselves. The first level focuses on how one views his/her self as a human being (i.e., human identity) and the second level refers to the self in terms of membership to a social in-group (i.e., social identity). In this latter case, the self is categorized at the group level when individuals engage in comparisons between one's own in-group and members of another group (i.e., in-group/out-group comparison). The

third and final level is labeled personal identity and is based on interpersonal comparisons between an individual and other members of one's in-group.

How In-Group and Out-Group Members Interact

Tajfel and Turner (1986) define out-groups as social groups one is not a member of (e.g., in the context of evaluation of the gender wage gap, women would be an out-group for men). Although an individual can acknowledge the injustice faced by an out-group, the interactions between in-groups and out-groups and the quality of those interactions are often determined by other factors besides acknowledgment of injustice. One study determined that a group member was more likely to attribute negative actions that another in-group member had partaken in to external factors (i.e., the situation), but more likely to attribute negative actions an out-group member had partaken in to internal factors (i.e. their personality) (Schmitt & Branscombe, 2002). These results suggest that people are more willing to stereotype out-group members than in-group members (i.e., make internal attributions about out-group's actions), which can lead to more negative interactions between members of different social groups (Schmitt & Branscombe, 2002).

One important step in increasing positive intergroup interactions is to encourage advantaged groups to acknowledge how their in-group's actions played a role in the disadvantages or negative outcomes an out-group faces. Once an in-group as a whole can acknowledge that the disadvantaged outcomes experienced by an out-group are illegitimate, steps can be made to repair the harm done or restore intergroup economic equality or equity (Branscombe, Doosje, & McGarty, 2002). One strategy researchers

have focused on to improve intergroup interactions is perspective taking (Miron, Branscombe, Olson, & Agnello, 2017b; Vorauer & Sasaki, 2009; Zebel, Doosje, & Spears, 2009).

Perspective Taking and Intergroup Relations

Perspective taking refers to the ability to understand a given situation from another's point of view (Batson, 2009; Bruneau & Saxe, 2012). Often used to help reduce conflict or resolve issues between people or social groups, perspective taking is related to increased communication and understanding between two or more parties in different types of social settings (Galinsky, Maddux, Gilin, & White, 2008). In perspective taking studies examining intergroup interactions, researchers often have members of one group take the perspective of members of a different social group and compare those results to the results of those who do not take another's perspective (Clore & Jeffery, 1972; Galinsky, Maddux, Gilin, & White, 2008; Galinsky & Moskowitz, 2000; Zebel, Doosje, & Spears, 2009). This allows members of one social group to get a better understanding of how an out-group member might be affected by certain situations or events.

In their first study, Zebel et al. (2009) asked participants to complete a national identification measure that assessed different aspects of Dutch group identification. Once the participants completed that measure, they were randomly assigned to one of four groups based on who the focused out-group was (i.e., African Slaves or Dutch Jews) and whether or not participants were asked to take the perspective of that out-group. The participants were given a brief story regarding harm to the out-group by the in-group (i.e.,

Dutch citizens). While reading these stories, the participants, based on the condition they were in, were asked to either take the perspective of the out-group (i.e., imagine themselves in the situation of the victimized out-group member) or were not given any instruction at all. After reading the story, they were asked to complete a questionnaire measuring both group-based guilt and the participant's support for reparation regarding the harm to the out-group.

The results indicated a significant interaction effect between the perspective-taking condition and national identification, suggesting that perspective-taking manipulations can help increase group-guilt, but only when in-group identification is low. Zebel et al. (2009) also conducted further analyses to assess the relationships between perspective taking, group identification, group-based guilt, and support for reparation. Path model analysis for the study demonstrated that higher group-based guilt leads to higher support for reparation, while higher group identification leads to lower support for reparation. More importantly, the path model analysis concluded that the interaction between perspective taking and group identification can lead to an increase in group-based guilt for low in-group identifiers, which in turn leads to an increase in support of reparation. This study emphasizes the importance of perspective taking in improving intergroup interactions and how different levels of group identification may influence those interactions.

Perspective taking also can improve the attitudes an out-group has towards one's own in-group. When a member of a minority out-group feels heard, or becomes aware that someone from a majority group is spending time and resources to understand what

their group experiences, the group member will report more positive interactions with that majority group member (Bruneau & Saxe, 2012; Galinsky et al., 2008). One study testing how perspective taking influences social interactions in negotiation settings concluded that taking another's perspective improved the interactions in a dyadic relationship (Galinsky et al., 2008). Participants were given the role of either seller or buyer in a negotiation style setting. Participants who were asked to take on the role of the buyer were then randomly assigned to one of three different experimental conditions (i.e., control condition, empathy condition, and perspective-taking condition). The buyers in the control condition were given no instructions before the negotiations. Those in the perspective-taking condition were asked to try to understand what the seller was thinking before going into the negotiation setting. The participants in the empathy condition were given instructions to try to understand the seller's emotions and feelings.

Results from the study indicated that, not only did those in the perspective-taking condition have a higher settlement rate, but sellers paired with the perspective-taking buyers also reported being more satisfied with the interaction overall compared to the sellers in the control condition. These results emphasized the idea that when engaging in social interactions, taking another's perspective can increase that person's perception of an out-group and positively influence the interaction overall. Although perspective taking resulted in positive intergroup interactions in mutually beneficial negotiation settings, research regarding non-mutually benefiting settings (e.g., zero-sum group relationships) allow social psychologists to assess how perspective taking can be influenced by threats to one's in-group's resources.

Threat and Intergroup Interactions

The construct of threat in the context of social interactions has been an important topic in social psychology. The most influential area of research regarding threat focuses on social identity threat. Social identity threats are defined as threats to the views and values of one's group identity, with research often focused on assessing different strategies individuals may use to cope with this threat (Branscombe, Ellemers, Spears, & Doosje, 1999). Research regarding social identity threat has divided the concept into four classes of threat (i.e., categorization threat, distinctiveness threat, value threat, acceptance threat), each of which influence social groups differently.

The first class of threat is referred to as categorization threat and involves the threat one may feel when subjectively placed into their social groups without that person's ability to choose what social group they belong to (e.g., gender, ethnicity). The next type of threat is referred to as distinctive threat and is described as the threat individuals face when they do not feel like they have a social identity or when they do not feel there is a personal distinction between them and/or their in-group members. The third class of threat is threat to values and can be separated into two different subcategories: competence (e.g., performance, status) and morality (e.g., in-group treatment towards specific out-group). Regardless of the type of values being threatened, this class of identity threat focuses on when individuals are directly attacked by an out-group and become defensive. The final class of social identity threat is labeled as acceptance threat and refers to the threat an individual feels when their acceptance by their in-group is in

question. Although the four classes of social identity threat do impact intergroup interactions (Branscombe et al., 1999), for the current study, threat to values (i.e., morality value threat) and how this threat impacts factors related to the gender wage gap will be assessed.

Factors influencing one's sense of threat. Research testing factors that influence perception of threat often focuses on self-report measures regarding views and opinions about one's self, one's in-group, and/or different out-groups (Long & Spears, 1997; Rouhana & Fiske, 1995). One's degree of identification with a specific in-group also influences the different classes of threat, as higher in-group identifiers and lower in-group identifiers react differently to social identity threat (see Table 1; Branscombe et al., 1999). Falomir-Pichastor and Frederic (2012) determined that, among Swiss college students, immigrants were perceived as more threatening to students scoring higher in Swiss nationality scores than to student participants scoring lower in Swiss nationality scores. These results demonstrate that individuals with high in-group identity perceived threats from an out-group as being more severe than did individuals with low in-group identification. In-group identification and strong connections with other in-group members can lead an individual to be more negatively biased towards out-groups, and decrease the overall potential for positive interactions with someone outside of the in-group.

Perspective taking and threat. Perspective taking as a strategy to change or influence social relationships does not always lead to improvements in intergroup relations. Some past research suggests that under certain threatening circumstances,

perspective taking may hinder social interactions (Branscombe & Miron, 2004; Vorauer & Sasaki, 2009; Zebel et al., 2009). For instance, when individuals are forced to face unjust advantages regarding their in-group and then asked to take the perspective of the disadvantaged out-group, participants will often report less willingness to help and more resistance to admitting the out-group deserves justice (Branscombe & Miron, 2004).

In their study, Zebel et al. (2009) asked participants to complete a group identification measure and were then asked to read a passage about an out-group that was harmed by the participant's in-group. While reading the story, participants were instructed to either take the perspective of the out-group or were not given any specific instructions at all. After reading the story, participants completed a survey assessing in-group responsibility for the harm to the out-group, overall compassion for the out-group, group-based guilt, and support for reparation. Similar to their other studies, Zebel et al. (2009) found that high in-group identification has the potential to hinder intergroup interactions. The researchers measured in-group responsibility, compassion for the out-group, and in-group identity to assess if certain factors affected the relationship between perspective-taking and group-based guilt. Analyses with potential moderators revealed that there was a significant interaction between compassion and group identification when predicting group-based guilt, while no interaction was significant for in-group responsibility and group identification. This interaction effect implies that the relationship between compassion and group-based guilt is moderated by in-group identification. The effect of compassion and group identification on group-based guilt demonstrates how empathetic responses stemming from the perspective-taking

manipulations may influence intergroup interactions differently than non-empathetic related perspective-taking responses (e.g., in-group responsibility).

Why Threat Moderates Perspective Taking Effects

A lack of common interests between in-groups and out-groups can lead to divergent perspectives regarding social issues. When an individual fails to take the perspective of out-groups in a given situation, egocentric attitudes relating to fairness and equality will occur and may increase intergroup conflict (Babcock & Loewenstein, 1997; Epley, Caruso, & Bazerman, 2006). Although research has shown that perspective taking can reduce the egocentric tendencies of social group members, an area of research focusing on stigma and stereotypes has found that using perspective taking in certain situations leads to ironic behaviors from certain social groups because of reactive egoism (Epley et al., 2006).

Reactive egoism is defined as an egoistic or self-serving bias in reaction to the assumed egoistic behaviors of others (Epley et al., 2006). In the context of intergroup interactions, reactive egoism occurs when taking the perspective of an out-group member leads to a decrease in negative judgements about the out-group while at the same time there is an increase in self-interest related behaviors (Batson, Thompson, & Chen, 2002; Epley et al., 2006). These reactions are theorized to stem from the fact that a person's judgments and their behaviors often do not match. People also tend to believe that the behaviors of others are influenced by their own self-interests and the interests of that individual's in-group (Miller, 1999; Miller & Ratner, 1998). When asked to take the

perspective of an out-group member, the individual may focus on perceived cynical motivations of that out-group member that would have been otherwise overlooked if the individual had not been asked to be less egocentric when considering a situation. In reaction to the realization that out-group members may be motivated by self-interests, the individual will display increasingly selfish behaviors in favor of their own in-group (Epley et al., 2006; Esser & Komorita, 1975).

In their work regarding perspective taking and reactive egoism, Epley et al. (2006) tested this idea. Participants in their first study were asked to partake in a game involving fish harvesting and group collaboration. The participants were either asked to take the perspective of the other fish harvesters or not. Results from the study showed that participants who were asked to take another's perspective also reported more selfish behaviors regarding the amount of fish they would harvest. In the researchers' next two studies, participants were given information regarding grant money from their university and were asked to report how much money a single student should get. The participants were again asked to either take another student's perspective or to think of themselves. Similar results were found, as participants who were asked to take the perspective of another student reported wanting more grant money themselves (i.e., increased selfish behavior). Path analysis from the study also concluded that the amount of money one requests for themselves was mediated by how much grant money the participant thought the other person would ask for.

In a final study, Epley et al. (2006) asked participants to either take the perspective of another group or not in a baking situation. In the study, participants were

told that there was a limited number of chocolate chips for baking and were asked how many chocolate chips they thought everyone should get. In one condition, they were asked to take the perspective of the other group and in another condition they were not given any specific instructions. The participants were also divided into either competitive settings (i.e., they were told that everyone was competing to make the best-rated cookies) or cooperative settings (i.e., they were told that those in the study would receive overall group scores so that their rating depended on the performance of other participants).

The results of this study demonstrate how perspective taking leads to more egocentric responses in a competitive setting compared to a cooperative setting. The participants in the competitive and perspective taking condition reported using more chocolate chips and believed the other group members would use more chocolate chips than the other three conditions (i.e., competitive/no perspective taking, cooperative/perspective taking, or cooperative/no perspective taking). Overall, considering another's perspective in a competitive setting led the individual to believe that other participants would be more selfish and more competitive in their actions, which in return increased the selfish behaviors of the participants themselves. Given that discourse on resolving the gender wage gap typically involves redistribution of resources across the two gender groups (e.g., affirmative action policies; Son Hing, Bobocel, & Zanna, 2002), these results could apply the gender wage gap. One of the goals of the proposed study was thus to assess how the competitive nature of salary negotiations potentially influenced men when asked to judge women's estimated standards of injustice regarding the gender wage gap.

Gender Wage Gap and Intergroup Interactions

Social inequalities are perceived by advantaged and disadvantaged groups in vastly different ways (Adams, Tormala, & O'Brien, 2006; Branscombe, 1998; Johnson, Simmons, Trawalter, Ferguson, & Reed, 2003; Swim, Cohen, & Hyers, 1998). These different perceptions make negotiations between two social groups stressful, and may potentially decrease the overall success of outcomes in the negotiations (Galinsky et al., 2008). Disagreements relating to perceived inequality between advantaged and disadvantaged groups allow for little possibility regarding policy change or reduced social inequality related to the gender wage gap (i.e., the salary gap between men and women of equally qualified stature in the work force; Cambridge English Dictionary, 2015) (Miron et al., 2017a).

Research aimed to resolve the gender wage gap had assessed perceptions of the gender wage gap by assessing individuals' standards of injustice (Miron et al., 2011; Miron et al., 2017a). The amount of evidence needed to conclude that an event is unfair to a person or group of people is referred to as an evidentiary standard of injustice (Miron et al., 2011; Miron et al., 2017a). When an advantaged group member is given information regarding the injustice a disadvantaged out-group faces, that group member often requires more evidence regarding that injustice in order to conclude that the disadvantaged situation of the out-group is unjust compared to the out-group members (Branscombe, 1998; Miron et al., 2011; Schmitt, Branscombe, Kobrynowicz, & Owen, 2002). This may be due to the fact that acknowledging the illegitimate advantage the

group member benefits from is threatening to their positive sense of identity (i.e., they belong to a group whose resources have been acquired illegitimately or unfairly).

In their previous work, Miron et al. (2011) asked men and women participants about their awareness of gender inequality before coming to the study and concluded that men's awareness and women's awareness regarding the gender wage gap did not significantly differ. Next, both men and women participants were given factual information about the gender wage gap in lab and were asked to rate how much evidence of economic inequality the participant would need to conclude that the gender wage gap was unfair to women. The results from the study indicated that the advantaged group (i.e., men) and the disadvantaged group (i.e., women) requested different amounts of evidence (i.e., set different injustice standards for concluding unfairness regarding the gender wage gap), even though both genders comprehended that the gender wage gap was present (Miron et al., 2011). Specifically, men asked for more evidence than women in order to say the gender wage gap was unjust for women.

Gender Differences in Perceptions of Injustice Regarding the Gender Wage Gap

The concept of in-group and out-group differences plays an important role in the research on differential perceptions of the gender wage gap by men and women.

Expanding on their previous research, Miron et al. (2017a) assessed how the in-group and out-group estimates of social injustice differed as a function of group membership (i.e., gender group identification). Differences between men and women's estimated standards of injustice was not only found when participants were asked about in-group standards

but was also found when asked to estimate the standards of the out-group (i.e., estimated out-group standards of injustice). In particular, participants in the study were randomly assigned to one of two conditions (i.e., in-group standard condition or out-group standard condition). In the in-group condition, participants were asked how much evidence they thought the gender in-group needed in order to conclude that the gender wage gap was unjust (e.g., women were asked how much evidence they thought women needed and men were asked how much evidence they thought men needed). In the out-group condition, participants were asked how much evidence they thought the gender out-group needed to conclude that the gender wage gap was unjust (e.g., women were asked how much evidence they thought men needed and men were asked how much evidence they thought women needed).

When assessing both in-group and out-group estimates, men reported higher standards of injustice than women did. That is, men asked for more evidence of inequality to conclude that the gender wage gap is unfair to women compared to women, but men also thought that women would need more evidence of inequality to conclude that the gender wage gap is unfair to women than women reported needing themselves. The results regarding in-group standard differences between men and women replicate findings from Miron et al. (2011). The results regarding estimated out-group standards confirmed the notion that there is a disconnect between how the advantaged group (i.e., men) and the disadvantaged group (i.e., women) perceive the out-group's response to the gender wage gap. These findings suggest that, regardless of whether they are thinking about their own in-group or the out-group (i.e., women), men request, and estimate that

women request, more evidence to say the gender wage gap is unfair than women request themselves. As for women, their in-group standards of injustice are significantly higher than the standards they thought men set (i.e., estimated out-group standards).

Interestingly, when women are asked about the out-group (i.e., men), their out-group standards were also higher than the standards reported for the men's in-group standards.

These results demonstrate that women think men need more evidence to conclude that the gender wage gap is unfair than men actually report needing (Miron et al., 2017a).

This disconnect between what women think men need, what men think women need, and what each gender group actually reports needing presents a major problem in terms of reducing the gender wage gap. When women think men need unreasonably higher amounts of evidence than they actually reported needing to say the gender wage gap is unfair, women may be less willing to voice their opinions on the matter and feel like fighting for equal pay rights is pointless. When men think women need higher amounts of evidence than women report needing to say the gender wage gap is unfair, men may not feel the necessity or urgency to address the current gender wage inequality.

Strategies to Address Discrepancy in Perceptions of Gender Wage Gap

As discussed above, perspective taking has been used in the past to address in-group and out-group interaction (Miron et al., 2011; Miron et al., 2017a; Vorauer & Sasaki, 2009). In follow-up studies, Miron et al. (2017b) assessed how different methods influence in-group and out-group estimated standards of injustice regarding the gender wage gap. By manipulating perspective taking in the advantaged group members (i.e.,

men), Miron et al. (2017b) addressed one potential reason for the discrepancy found in earlier work: men do not naturally take the perspective of women affected by gender inequality.

Miron, Branscombe, Lishner, Otradovec, & Frankowski (2017c) investigated how having men take the perspective of women negatively affected by the gender wage gap could potentially help decrease the difference between actual in-group standards and estimated standards of the out-group. Participants were given factual information regarding the gender wage gap and how it impacts the life of women employees. Although all women were asked to complete the same survey assessing in-group estimated standards of injustice seen in Miron et al. (2011), men participants were randomly assigned to one of three conditions (i.e., stay-objective, empathy, and perspective-taking). For the stay-objective condition, men were asked to remain detached from women employees while completing the estimates out-group standards of injustice survey. For the empathy condition, men were asked to imagine women's feelings and to focus on how the situation (regarding the gender wage gap) was affecting women's lives. Men in the perspective-taking condition were given instructions to think about women employees and to try and understand their thoughts regarding the gender wage gap. Once they read their instructions, both men and women participants were asked about their own in-group perception of the gender wage gap. This was done to investigate how perspective taking influenced men's perception of the gender wage gap in comparison to women's perception. Everyone was also asked to complete a gender identification scale to assess if their gender identity interacted with the manipulation.

The reported estimated out-group standards were highest for the men in the stay-objective condition than in the other three conditions (i.e., men/empathy, men/perspective-taking, and women/in-group conditions). In other words, when men imagined women's feelings about inequality (i.e., empathy) or tried to understand women's situation (i.e., perspective taking), they made estimates of women's standards that were not significantly different from women's actual standards. Remaining objective about women's disadvantaged situation led to the discrepancy between men's estimates of women's standards (i.e., out-group standards) and women's actual standards (i.e., in-group standards), as found in prior studies.

These results demonstrate how perspective-taking manipulations can help address motivated inattention from an advantaged group when asked about a disadvantage group (Miron et al., 2017b). The perception of inequality regarding the gender wage gap was also affected by the mindset manipulations. Men in the stay-objective condition reported that the gender wage gap was more justified than any other of the remaining three conditions (i.e., men/empathy, men/perspective-taking, and women/in-group conditions). More importantly, only men in the perspective-taking condition reported that the gender wage gap was just as unjustified to women as women themselves reported. For this reason, the current study will use perspective-taking manipulations and not address empathy like in the previous study.

Both perspective taking and empathy mindsets helped reduce the discrepancies discovered in Miron et al. (2017a), indicating that either method may be used to help the advantaged group (i.e., men) focus on the issues regarding the disadvantaged group (i.e.,

women). Further analyses assessing mediation relationships concluded that a mediating relationship was present between estimated out-group standards, perceptions of inequality, and out-group-focus manipulation. Specifically, estimated out-group standards acted as a mediator for the relationship between the focus manipulation (i.e., perspective-taking versus stay objective) and the participant's perception of inequality regarding the gender wage gap. Interestingly, this relationship was only found when comparing the stay-objective condition to the perspective-taking condition with perspective taking participants perceiving more inequality related to the gender wage gap than the stay objective condition, emphasizing the importance of perspective taking specifically. Miron et al. (2017b) concluded with the argument that the out-group-focus manipulation did result in decreasing the discrepancies between men's out-group standards and women's in-group standards regarding the gender wage gap. These researchers noted that decreasing the social identity threat men experience when faced with information about the illegitimacy of the gender wage gap they are benefiting from is an important strategy that could further enhance perspective-taking effects on estimated standards (Miron et al., 2017b).

Overview of the Proposed Study and Hypotheses

Prior research regarding intergroup interactions has mainly focused on whether one views the in-group and out-group members, as well as the injustice they both face, differently (Miron et al., 2011; Vorauer & Sasaki, 2009; Zebel et al., 2009). Social identity threat research has addressed how the concept of threat may influence these differences in intergroup interactions (Ethier & Deaux, 1994), but research exploring how perceived threat could be reduced is limited.

Understanding how threat and intergroup interactions influences each other has the potential to reduce inequalities between advantaged and disadvantaged social groups. Prior research reveals that one reason inequality between social groups remains difficult to change may be due to the differences in standards of injustice between the social groups (Miron et al., 2011). In their work, Miron et al. (2011) found that advantaged social groups judge current inequalities between groups as less severe and set higher standards of injustice than the disadvantaged social groups. This in turn leads to a decrease in the advantaged group's willingness to restore intergroup justice. Previous research has also shown that men's overestimation of out-group standards of injustice regarding the gender wage gap may be due to their inattention to the out-group's situation and can be reduced, or brought closer to that of women, by directly asking them to take the perspective of women (Miron et al., 2017b; Miron). Although men can take the perspective of women, research has determined that they do not do this, unless specifically instructed to do so.

Work by Miron et al. (2017b) suggests that this discrepancy may be due to the fact that acknowledging the illegitimacy of their in-group's economic advantage may be threatening to men (i.e., a threat hypothesis). In order to provide a conceptual replication of these prior findings, the current study recruited only men and manipulated perspective taking to assess the effects on men's estimated standards of women, men's willingness to help the out-group, and men's perceptions of the gender wage gap. Advancing on previous work, the current study also manipulated threat and assessed threats effect on the various intergroup outcomes. To begin with, participants were presented with factual information regarding the gender wage gap. They were then randomly assigned to either the high or low threat condition, and either the perspective-taking or stay-objective condition. Finally, participants were asked to complete a series of surveys assessing their estimated out-group standards, their willingness to help the out-group, their perception regarding the gender wage gap, and their in-group gender identification score. The following hypotheses were tested:

Hypotheses Set 1.

Predictions for men's estimated out-group standards. It was hypothesized that there would be an interaction between threat and perspective taking on how much evidence men think women need in order to conclude that the gender wage gap is unfair to women (i.e., estimated out-group standards). In other words, under low threat conditions, perspective taking would have a beneficial effect on men's estimated standards of women (i.e., men would estimate lower out-group standards in the

perspective-taking condition than in the stay-objective condition). However, under high threat condition, men would estimate higher out-group standards in the perspective taking condition than in the stay-objective conditions, because perspective taking would make men aware of the perceived illegitimate cause for women's disadvantage (i.e., their own in-group's advantage).

Hypotheses Set 2.

Predictions for men's willingness to help the out-group. It was hypothesized that there would be an interaction between threat and perspective taking on how willing men are to help women when it comes to reducing the gender wage gap. In other words, under low threat conditions, perspective taking would have a beneficial effect on willingness to help the out-group (i.e., men would be more willing to help women in the perspective-taking condition than in the stay-objective condition). However, under high threat condition, men would be less willing to help the out-group in the perspective taking condition than in the stay-objective condition, because perspective taking would make men aware of the cause for women's disadvantage (i.e., their own in-group).

Hypotheses Set 3.

Predictions for men's perceptions regarding the gender wage gap. It was hypothesized that there would be an interaction between threat and perspective taking on men's perception regarding the legitimacy of the gender wage gap. In other words, under

low threat conditions, perspective taking would have a beneficial effect on perception of the gender wage gap (i.e., men would perceive the gender wage gap as less legitimate or justified in the perspective-taking condition than in the stay-objective condition).

However, under high threat condition, men would view the gender wage gap as more legitimate in the perspective taking condition than in the stay-objective condition, because perspective taking would make men aware of the cause for women's disadvantage (i.e., their in-own group).

Hypotheses Set 4.

Predictions for the interaction effects between gender group identification, threat, and perspective taking. It was hypothesized that men reporting higher in-group identification would report greater effects of threat than those reporting lower levels of in-group identification, resulting in highly identified men reporting higher estimated out-group standards, lower willingness to help, and lower perceptions of the gender wage gap compared to weakly identified men, especially in the high threat/perspective-taking condition. Thus, group identification would act as a moderator on the relationships between perspective taking and threat on the three dependent variables.

Methods

Participants

A total of 225 men were recruited using the online research site Amazon Mechanical Turk® (MTurk®). This allowed for around 50 participants per condition. An online sample size calculator was used to calculate a minimal samples size based on the average effect size. Previous research has suggested an average effect size ranging from small ($d = .10$, $\eta^2 = .06$) to moderate ($d = .25$, $\eta^2 = .15$). The minimal sample size suggested from the study was 165 or 42 participants per condition (Soper, 2016). Based on the sample size of 200, or 50 per condition, the power calculation for the study would be .95 (Soper, 2016). Participants were limited to United States residents who were men and currently working full-time. Those who participated received compensation for completing the survey of \$0.75. MTurk® was used to recruit participants in order to get the best representation of the current working population of men in terms of both age and work experience in the United States.

Design

Threat and perspective-taking was manipulated, while gender group identification was a continuous variable, in a 2 (threat: high threat versus low threat) x 2 (perspective-taking: imagine other versus stay objective) design with a continuous independent variable of gender group identification. Estimated out-group standards, willingness to help the out-group, and perceptions of the gender wage gap were measured after the threat and perspective-taking manipulations.

Procedures

Interested participants viewed the study description on MTurk® (see Appendix A). If they wished to participate in the study, they clicked on the link and were redirected to the Qualtrics site where they were presented with the study information. Participants began the study by reading a consent form (see Appendix B) that described the study as a survey meant to assess current topics in the work place and how companies can address these topics. If they agreed to participate, they clicked submit, and moved to the next screen, which involved them being asked to read a short paragraph providing them with factual information regarding the gender wage gap and how the current gender wage gap affects working women (see Appendix C). After, they were redirected to a new page containing a survey asking them about their current employment status and employer information (see Appendix D). Once that was completed, participants were given information about a potential policy change for their company (i.e., the threat manipulation) meant to help reduce the gender wage gap (see Appendix E). Then, they were given instructions about how to complete the next survey (i.e., the perspective-taking manipulation). The survey assessed estimated out-group standards (see Appendix F), perceptions regarding the gender wage gap (see Appendix G), and willingness to help the out-group (see Appendix H) and was followed by manipulation checks for perception of threat and levels of perspective taking (see Appendix I). Next, participants completed a survey assessing the gender group identification score (see Appendix J). After they completed the survey, they were thanked for their time and given a debriefing form to

read that contained the study information, resources, and the researcher's contact information (see Appendix K). Finally, they were credited \$0.75 for their time.

Experimental manipulations. The two manipulated independent variables were threat level and perspective taking. To manipulate threat level, participants were randomly assigned to either the high threat or the low threat condition. Based on condition assignment, they read about a different potential policy change for the company they currently work for. To manipulate perspective taking, participants were randomly assigned to either take the perspective of women they work with or to stay-objective.

Threat level manipulation (high threat versus low threat). All participants were asked to read a short paragraph involving true facts about current salary inequalities between men and women relating to the gender wage gap. Once they read that information, they proceeded to the next section and were asked to answer questions about their current employment status and salary.

After filling out those questions, participants were randomly assigned to either the high threat condition or low threat condition and were asked to read a potential policy change their current company can opt to use in order to reduce the gender wage gap. The high threat condition involved a policy change that includes reducing the salary of men to solve the issue of the gender wage gap, whereas the low threat condition involved a policy change that included increasing women's salary via government funded programs. They were then redirected to the estimated out-group standards, the willingness to help the out-group, and the perceptions of the gender wage gap survey.

Perspective-taking manipulation (perspective-taking versus stay-objective; Miron et al., 2017a). Before filling out the questionnaire on estimated out-group standards, willingness to help the out-group, and perceptions of the gender wage gap, participants were given instructions to either take the perspective of women workers (i.e., “Please try to take the perspective of the women in your company affected by the salary gap and try to understand their thoughts and feelings about the discrepancy”) or to stay objective (i.e., “Please try to stay objective and detached from the women in your company affected by the salary wage gap”). After reading the instructions, the participants filled out a questionnaire measuring their estimated out-group standards, their perceptions regarding the gender wage gap, and their willingness to help the out-group when it comes to making changes regarding the gender wage gap.

Gender Identity Scale (Miron et al., 2011). To make gender identity salient, participants were asked to indicate their gender and then to fill out a series of ten questions to measure their gender group identification on a seven-point scale (1 = Strongly Disagree and 7 = Strongly Agree). Some of the questions the participants were asked included, “I feel positively about my gender group” and “I often think about myself in terms of my gender group.” Internal consistency in the current study was excellent ($\alpha = .95$).

Dependent measures. Participants were asked to complete a series of questionnaires, both before the manipulations and after the manipulations. These measures were used to assess the effects of gender group identification, threat, and perspective taking on the variables of interest.

Estimated out-group standards (Miron et al., 2017a). To measure estimated out-group standards, men were asked to estimate the standards of injustice used by women to judge existing gender inequality related to the gender wage gap (“We are simply interested in what you think women think about these matters”) on 4 items (e.g., “For women to consider the existing gender wage discrepancy in the United States unfair to them, the wage gap would have to be found in what percentage of occupations?”). All items were accompanied by 11-point percentage scales ranging from 0% to 100%, in 10% increments. Internal consistency for the current study was good ($\alpha = .86$).

Willingness to help out-group (Miron et al., 2017a). To measure willingness to help the out-group, participants were asked to answer three questions assessing how willing they were to encourage women to address the gender wage gap in the workplace (e.g., “How likely are you to encourage your female coworker to go talk to her supervisor about the unequal pay affecting her, upon discovering that she is earning less than you?”). Questions were rated on an eight-point Likert scale (0 = Not at all, 7 = Extremely Likely) and internal consistency was excellent ($\alpha = .96$).

Perception of the gender wage gap (Miron et al., 2017a). To measure perception of the severity and legitimacy of the gender wage gap, all participants were asked to report their agreement or disagreement with 6 items, drawn from previous work on legitimization of gender inequality (e.g., “The current gender wage discrepancy is not due to intentional discrimination against women”) These items were assessed on nine-point scales (1 = Strongly Disagree; 9 = Strongly Agree) with internal consistency being excellent ($\alpha = .91$).

Manipulation Checks

Perspective-taking manipulation checks. Participants were asked two questions assessing the effectiveness of the perspective-taking manipulation (“When filling out the survey, to what extent did you try to imagine how women employees are affected by the gender wage discrepancy you read about?”, “When filling out the survey, to what extent did you try to stay objective regarding how women employees are affected by the situation you read about?”). The questions involved an eight-point scale (0 = not at all to 7 = extremely) with internal consistency being good ($\alpha = .79$).

Threat manipulation checks. Participants were asked two questions assessing the effectiveness of the threat manipulation (“When filling out the survey, to what extent did you feel the potential policy change could negatively impact you?” “When filling out the survey, to what extent did you feel the potential policy change could negatively impact the male employees in your company?”). The questions involved an eight-point scale (0 = not at all to 7 = extremely) with excellent internal consistency ($\alpha = .94$).

Once the survey was completed, participants were redirected to a new screen and read a debriefing sheet that gave them information on what the purpose of the study was and contact information relating to the research in case they had any questions or comments. They were also thanked for their participation and compensated \$0.75.

Statistical Analyses

Hypotheses Set 1.

A 2 (High threat vs. Low threat) x 2 (Perspective-taking vs. Stay Objective)

ANOVA was planned to assess the effects of the two independent variables on estimated out-group standards. Planned comparisons were planned as follow-ups for any significant interaction effects. Three planned comparisons were conducted and the contrast codes can be found on Table 2.

Hypotheses Set 2.

A 2 (High threat vs. Low threat) x 2 (Perspective-taking vs. Stay Objective)

ANOVA was planned to assess effects of the two independent variables on willingness to help the out-group. Planned comparisons were planned as follow-ups for any significant interaction effects. Three planned comparisons were conducted and the contrast codes can be found on Table 2.

Hypotheses Set 3.

A 2 (High threat vs. Low threat) x 2 (Perspective-taking vs. Stay Objective)

ANOVA was planned to assess effects of the two independent variables on perceptions regarding the gender wage gap. Planned comparisons were planned as follow-ups for any significant interaction effects. Three planned comparisons were conducted and the contrast codes can be found on Table 2.

Moderation Hypotheses.

Three separate hierarchical multiple regressions were conducted testing the moderating effect of gender group identification on the relationship between perspective-taking and level of threat on the three criteria (i.e., estimated out-group standards, willingness to help the out-group, and perception regarding the gender wage gap). Before the regressions were run, all data was cleaned, all assumptions were assessed and dependent variables were centered to protect against multicollinearity as outlined by Tabachnick and Fidell (2013). The three main effects for gender group identification, threat level manipulation, and perspective-taking manipulation were to be entered on step one. The 2-way interactions between gender group identification, threat level manipulation, and perspective-taking manipulation were to be entered on step two. The 3-way interaction between gender group identification, threat level manipulation, and perspective-taking manipulation was to be entered on step three. The 3-way interaction was expected to be significant and the 3-way MLR online calculator (Preacher, Curran, & Bauer, 2006) was to be used to assess the 2-way effects of threat level and perspective-taking for low gender identity (assessed at 1 standard deviation below the mean of gender identity measure) and for high gender identity (assessed at 1 standard deviation above the gender identity mean), respectively. Stronger threat effects were expected for high identifiers than for low identifiers in the high threat/perspective-taking condition for all three regressions.

Results

Prior to conducting any analyses, missing data were examined at the case and item level, outliers and normality was assessed, and all data was cleaned as outlined by Tabachnick and Fidell (2013). A total of 225 men were recruited, with a total of 18 participants missing more than 20% of their data and thus deleted from the final data set. The final sample size was 207 with the average age of a participant being 36.70 years old ($SD = 10.29$) and the majority being Caucasian, with 79.71% reporting a European American/White ethnicity. The sample had an average annual income of \$54,561.20 ($SD = \$34,956.37$), had been at their current job for an average of 6.03 years ($SD = 4.94$), and the average men-to-women ratio was 3:2. We also assessed for negotiation opportunities and managerial positions within our sample. In total, 68 participants (32.85%) worked at a job where they could negotiate their salary and 88 participants (42.51%) were currently working as a manager at their company.

Manipulation Checks

The manipulation of threat was successful. An independent t-test revealed that men who were in the high threat condition reported feeling the potential policy would affect them more ($M = 4.18$, $SD = 2.07$) than the men in the low threat condition ($M = 2.75$, $SD = 1.97$), $t(204) = 5.08$, $p < .001$, $d = .71$. Participants in the high threat condition also reported that the potential policy would affect men more overall ($M = 4.40$, $SD = 2.04$) than the men in low threat condition ($M = 2.84$, $SD = 1.97$), $t(205) = 5.58$, $p < .001$,

$d = .78$. The perspective-taking manipulation did not yield significant differences between conditions. Although the men in the perspective-taking condition did report taking the perspective of women more ($M = 5.87, SD = 1.59$) than the men in the stay objective condition ($M = 5.51, SD = 1.78$), the difference between groups was not significant, $t(205) = 1.53, p = .13, d = .21$. Participants were also asked to report to what extent they attempted to stay objective when completing the study, and men in the stay-objective condition ($M = 5.98, SD = 1.41$) did not report staying objective to a greater extent than did men in the perspective-taking condition ($M = 5.88, SD = 1.47$), $t(205) = .50, p = .62, d = .07$.

Estimated Out-Group Standards

A 2x2 ANOVAs were conducted to examine the effects of threat (low threat vs high threat) and perspective taking (perspective-taking vs stay-objective) on estimated out-group standards. This analysis indicated that there was no significant main effect of threat, $F(1,202) = .82, p = .37, partial \eta^2 = .001$, and no main effect of perspective-taking, $F(1,202) = .81, p = .37, partial \eta^2 = .003$, on estimated out-group standards. There was also no significant two-way interaction between the threat level manipulation and the perspective-taking manipulation for estimated out-group standards, $F(1,202) = .59, p = .44, partial \eta^2 = .005$.

A Hierarchical multiple regression was also conducted to assess the effect of threat level, perspective taking, and gender group identification on estimated out-group standards. Due to the fact that our threat manipulation involved policy changes to one's

salary, we decided to control for whether or not the participant could negotiate their salary, so this was entered on the first step. The second step included the threat level manipulation, the perspective-taking manipulation, and the gender group identification mean score. The third step included all two-way interaction terms, and step four included the three-way interaction.

Homoscedasticity of error variances was assessed by examining the Levene's statistic and was determined to not be violated, $F(3, 203) = .94, p = .42$. Results from the first step revealed that whether someone could negotiate their salaries accounted for a significant amount of variance in estimated out-group standards, $R^2 = .07, F(1,205) = 14.57, p < .001$. At step two, adding the threat manipulation, the perspective-taking manipulation, and the gender group identification did account for a significant increase in variance accounted for, $R^2 \text{ Change} = .05, F \text{ Change}(4,202) = 6.93, p = .007$. Particularly, a significant amount of variance was accounted for by gender group identification, $\beta = .22, p = .001$, but not by the threat manipulation, $\beta = .04, p = .54$, nor by the perspective-taking manipulation, $\beta = .07, p = .31$. At step three, adding the two-way interactions did not account for a significant increase in variance accounted for, $R^2 \text{ Change} = .01, F \text{ Change}(3,199) = .86, p = .46$. In the fourth and final step, adding the three-way interaction between the threat manipulation, the perspective-taking manipulation, and gender group identification did account for a significant increase in variance accounted for, $R^2 \text{ Change} = .02, F(1,198) = 4.15, p = .04$. Specifically, a significant amount of variance was accounted for by the three-way interaction, $\beta = -.14, p = .04$. (see Table 4)

To follow-up the significant three-way interaction, an online three-way MLR slope calculator was used (Preacher et al., 2006). Specifically, it was predicted that high identifiers (1 SD above the mean on the group identification measure,) would be affected by the threat and perspective-taking manipulation more than the low identifiers (1 SD above the mean on the group identification measure). To follow-up the three-way interaction, two-way interactions for both high identifiers and low identifiers were conducted separately. Based on simple slope analysis results, gender group identification only affected participants' out-group estimated standards in the low threat conditions, with highly identified men estimating that women request more evidence of gender inequality ($M = 4.06$, $SD = 1.55$) than weakly identified men in this condition ($M = 2.48$, $SD = 1.32$), $t(197) = 1.93$, $p = .05$. In addition, the perspective-taking manipulation significantly lowered the estimated out-group standards for participants with high gender group identify ($M = 3.38$, $SD = 1.32$) compared to highly identified men in the stay-objective condition ($M = 4.53$, $SD = 1.59$). The slope for high group identity participants in the high threat condition was not significant, $t(197) = -1.15$, $p = .25$, suggesting that under high threat, high identifiers set similarly high out-group standards regardless of the perspective-taking manipulation. The perspective-taking manipulation did not significantly increase high identification participants estimated out-group standards in the perspective-taking condition ($M = 5.05$, $SD = 1.73$) compared to the stay-objective condition ($M = 3.88$, $SD = 2.04$) (see Figure 1).

Simple slope results also suggested that perspective taking did not affect participants' estimated out-group standards for weakly identified men in the low threat

conditions, $t(197) = .22, p = .83$, nor the high threat condition, $t(197) = .99, p = .32$.

Specifically, the perspective-taking manipulation did not significantly reduce weakly identified participants' estimated out-group standards ($M = 2.13, SD = 1.14$) compared to those in the stay-objective condition ($M = 2.80, SD = 1.46$) in the low threat conditions, nor did the perspective-taking manipulation significantly increase weakly identified participants' estimated out-group standards ($M = 2.45, SD = 1.32$) compared to the stay-objective condition ($M = 3.43, SD = 1.78$) in the high threat condition (see Figure 2).

Overall, the results partially supported the hypotheses. The perspective-taking manipulation did significantly decrease estimated out-group standards for the men with high gender group identification in the low threat condition as predicted, but it did not significantly increase estimated out-group standards for men with high gender group identification in the high threat condition. Also, although it was hypothesized, the threat and perspective-taking manipulations did not significantly affect the estimated out-group standards for the men with low gender group identification.

Willingness to Help the Out-Group

A 2x2 ANOVA was conducted to examine the effects of threat (low threat vs high threat) and perspective taking (perspective-taking vs stay objective) on willingness to help the out-group. This analysis indicated that there was no significant main effect of threat, $F(1,202) = 1.91, p = .17, partial \eta^2 = .01$, and no main effect of perspective-taking for willingness to help the out-group, $F(1,202) = .002, p = .97, partial \eta^2 < .001$. There was also no significant two-way interaction between the threat level manipulation and the

perspective-taking manipulation for willingness to help the out-group, $F(1,202) = .14, p = .71, \text{partial } \eta^2 < .001$.

A Hierarchical multiple regression was also conducted to assess the effect of threat level, perspective-taking, and gender group identification on willingness to help the out-group. Again, we decided to control for whether or not the participant could negotiate their salary, so this was entered on the first step. The second step included the threat level manipulation, the perspective-taking manipulation, and the gender group identification mean score. The third step included all two-way interaction terms, and step four included the three-way interaction. Results from the first step revealed that whether someone could negotiate their salaries did not account for a significant amount of variance in estimated out-group standards, $R^2 = .002, F(1,202) = .32, p = .57$. At step two, adding the threat manipulations, the perspective-taking manipulations, and the gender group identification did not account for a significant increase in variance accounted for, $R^2 \text{ Change} = .008, F \text{ Change}(4,202) = .47, p = .76$. At step three, adding the two-way interactions did not account for a significant increase in variance accounted for, $R^2 \text{ Change} = .009, F \text{ Change}(3,199) = .61, p = .61$. In the fourth and final step, adding the three-way interaction between the threat manipulation, the perspective-taking manipulation, and gender group identification did not account for a significant increase in variance accounted for, $R^2 \text{ Change} < .001, F(1,198) = .09, p = .77$. (see Table 5)

Perceptions of the Gender Wage Gap

A 2x2 ANOVA was conducted to examine the effects of threat (low threat vs high threat) and perspective taking (perspective-taking vs stay objective) on perceptions of the gender wage gap. This analysis indicated that there was no significant main effect of threat, $F(1,202) = .10, p = .75, \text{partial } \eta^2 = .001$, and no main effect of perspective-taking for perceptions of the gender wage gap, $F(1,202) = .56, p = .46, \text{partial } \eta^2 = .003$. There was also no significant two-way interaction between the threat level manipulation and the perspective-taking manipulation for the perceptions of the gender wage gap, $F(1,202) = .06, p = .80, \text{partial } \eta^2 < .001$.

A Hierarchical multiple regression was also conducted to assess the effect of threat level, perspective-taking, and gender group identification on estimated outgroup standards. Again, we decided to control for whether or not the participant could negotiate their salary, so this was entered on the first step. The second step included the threat level manipulation, the perspective-taking manipulation, and the gender group identification mean score. The third step included all two-way interaction terms, and step four included the three-way interaction. Results from the first step revealed that whether someone could negotiate their salaries accounted for a significant amount of variance in estimated outgroup standards, $R^2 = .02, F(1,200) = 3.81, p = .05$. Specifically, those who could negotiate their salary at their current job perceived the gender wage gap as less severe as the individuals who could not negotiate their current salary. At step two, adding the threat manipulations, the perspective-taking manipulations, and the gender group identification did not account for a significant increase in variance accounted for, $R^2 \text{ Change} = .002, F \text{ Change}(4,197) = 1.11, p = .36$. At step three, adding the two-way interactions did not

account for a significant increase in variance accounted for, $R^2 \text{ Change} = .004$, $F \text{ Change}(3,194) = .24$, $p = .87$. In the fourth and final step, adding the three-way interaction between the threat manipulation, the perspective-taking manipulation, and gender group identification did not account for a significant increase in variance accounted for, $R^2 \text{ Change} < .001$, $F(1,193) = .02$, $p = .90$. (see Table 6)

Discussion

The aim of the current study was to examine the effects of threat and perspective-taking on men's estimated out-group standards regarding the gender wage gap, men's perception of the gender wage gap, and men's willingness to help resolve the gender wage gap. Previous research has determined that taking women's perspectives helps reduce both men's in-group standards and men's estimated out-group standards (Miron et al., 2017b, Miron et al., 2017c). These results suggest that men are able to comprehend the consequences of the gender wage gap and can acknowledge the need to resolve the wage discrepancy between men and women, but only when taking a women's perspective. The current study expanded on this research by manipulating perspective-taking and threat to men's in-group status quo and assessing how threat to men's in-group impacts how they view injustice to an out-group as a function of perspective taking.

Estimated Out-Group Standards

Contrary to our hypotheses, neither the perspective-taking manipulation nor the threat manipulation individually influenced estimated outgroup standards. The most likely explanation for this is due to the predicted interaction between threat and perspective-taking, with the perspective-taking manipulation having opposite effects in the low threat condition compared to the high threat condition. Given that the perspective-taking manipulation failed, it was not surprising that the two-way interaction was not significant ($p = .46$).

Although perspective taking and threat did not significantly influence estimated out-group standards overall, gender group identification did (see Table 4). Men who identified more with their gender group estimated that women wanted more evidence to say the gender wage gap is unjust than men who identified less with their gender group. The results emphasize that men whose self-identity is closely linked to their gender group will have a harder time estimating out-group standards of injustice than those whose identity is not as linked to their gender group. In terms of reducing the gender wage gap, the influence of gender group identification can be problematic given that men's self-identity may not be easy to account for when creating policies to reduce the gender wage gap.

A significant three-way interaction was found between the perspective-taking manipulation, the threat manipulation, and gender group identification. Specifically, analyses revealed, as predicted, that the perspective-taking manipulation significantly decreased the estimated out-group standards for men with high gender group identification in the low threat condition. Given that the estimated out-group standards for men with low gender group identification in the low threat conditions were already low, a potential floor effect may be able to explain the lack of decrease in estimated standards in the perspective-taking condition (compared to the stay-objective condition). Although it was predicted that the high threat would result in an increase in estimated out-group standards for individuals in the perspective-taking conditions, no such effect was found. The results were trending in the hypothesized directions (see Figure 2), but it may be that the perspective-taking manipulation was unsuccessful and thus the reactive

response when taking the perspective of an out-group was not present for those in the perspective-taking/high threat condition. It may also be that men did not perceive the high threat policy as realistic, and thus were not as threatened by it as the researchers hoped, although the manipulation checks showed that participants in the high threat condition reported the policy they read about as being significantly more threatening than those in the low threat condition.

Willingness to Help the Out-Group

Contrary to our hypotheses, neither the perspective-taking manipulation, the threat manipulation, nor gender group identification individually influence men's willingness to help the out-group (see Table 4). Although previous work found that both out-group estimated standards and willingness to help the out-group were affected by perspective-taking and gender group identification (Miron et al., 2017a), the current study suggests that willingness to help the out-group was not influenced by threat, perspective taking, and gender group identification the way estimated out-group standards were.

One explanation for the lack of effects on willingness to help the out-group may relate to the threat manipulation. Since the threat manipulation involves a cover story that suggested the potential policies are already being used by different companies, the participants may not feel they need to help the out-group since steps are already being taken to address the gender wage gap. These results suggest that presenting potential policies to men may lead to a bystander type effect (Darley & Latane', 1968; Latane' & Darley, 1968, 1970; Latane' & Nida, 1981), where men may be less willing to help

women when it comes to the gender wage gap if they feel others are already attempting to resolve the issue. This could be a major issue in business settings where both men and women are attempting to resolve wage discrepancies.

Another explanation for why estimated out-group standards seemed to be affected by the manipulations, whereas willingness to help the out-group was not, may be due to the fact that the willingness to help measure prompted men participants to give socially desirable responses. The willingness to help the out-group measure included items assessing how willing men were to encourage women to address the wage discrepancy between men and women at their company. Given that world views are becoming more feminist in nature (Byrne, Felker, Vacha-Haase, & Rickard, 2011), social desirability might have influenced men to report higher willingness to help measure, regardless of experimental manipulations.

Perceptions Regarding the Gender Wage Gap

Although it was hypothesized, the perspective-taking manipulation, the threat manipulation, and gender group identification did not individually influence men's perceptions of the gender wage gap (see Table 6). Previous work has determined that both out-group estimated standards and perceptions of gender wage were affected by manipulated perspective taking and gender group identification (Miron et al., 2017a), yet the current study suggests that perceptions of the gender wage gap was not influenced by threat, perspective taking, and gender group identification the way estimated out-group standards were.

One explanation for the lack of effects on perceptions of the gender wage gap again relates to the threat manipulation. There are two ways this manipulation may influence perceptions of the gender wage gap. First, given that the manipulation involved a potential policy change, participants may not believe that issues regarding the gender wage gap are very severe, since they are led to believe that companies are already taking steps to address the discrepancy. Another explanation is that by providing participants with a cover story that suggests companies are already attempting to resolve discrepancy, men are unable to deny the gender wage gap as an issue and thus men report similar results regardless of condition and gender group identification. Future research would need to be conducted to determine which explanation is more plausible.

One surprising result regarding perceptions of the gender wage gap is the influence of participants' ability to negotiate one's salary. Results revealed that men who worked for a company that allowed employees to negotiate salaries perceived the gender wage gap as less of an issue. This is problematic given that negotiating one's own salaries does not resolve the issue of the gender wage gap as women are less likely to negotiate salaries in general (Babcock, Gelfand, Small, & Stayn, 2006). This can be an even more important issue for companies that already offer salary negotiations, since any attempt to decrease the wage discrepancy may be seen as futile to men within the company.

Implications and Limitations

Implications for Current Study

The current study has many important implications related to both the gender wage gap and psychology in general. Being the first study to examine threat, perspective-taking, and gender group identification as they related to perception of unfairness of the gender wage gap, the study advances psychologists' understanding of how one's gender group identification can moderate the relationship between threat and perspective taking. The current study suggests that gender group identification can lead to larger discrepancies between men and women. By addressing these discrepancies between strongly and weakly identified men's perceptions of their gender wage gap in the context of their own workplace environment, the current study can provide a potential paradigm for studying gender wage inequality and ways of addressing it.

The current study also aimed to address the real-world issues related to the gender wage gap by recruiting working men in the United States using Amazon Mechanical Turk®. By recruiting from the general population rather than using a college sample, the current study offers insights that may reflect real-world complex workplace dynamics and thus enhance the external validity of previous studies on this topic conducted in the laboratory (Miron et al., 2017a, 2017b).

Limitations and Future Directions

Although the current study advances the literature on intergroup interactions by assessing the influence of threat and perspective taking on men's responses to the gender wage gap, there are a few limitations to address. The first limitation relates to the threat manipulation. The threat manipulation involved two different potential policies that had never been used in previous work. Given the high threat condition did not seem to influence men's outcomes as hypothesized, the high-threat policy may not have invoked an increase sense of threat in men. Future studies should attempt to manipulate threat levels by using other methods to examine whether different sources of threat influence men more than the hypothetical policies used in the current study.

Another limitation in the current study is the lack of assessment of men's own in-group standards of injustice. Given that the current study only measured estimated out-group standards, the researchers have no way of knowing if threat influenced how unjust men themselves find the gender wage gap. This is important given that men's perceptions of injustice of the gender wage gap may influence how open they are to policy changes more so than their estimated out-group standards. Although the high threat condition did not significantly increase men's perceptions regarding the gender wage gap or their willingness to help the out-group, it is still possible that men's standards of injustice were higher in the high threat condition than the low threat condition. This may be problematic given that this could result in the men in the high threat condition needing more evidence to say the gender wage gap is unfair to women, and ultimately leads to potential resistance regarding policies addressing the gender wage gap. To investigate whether men's standards of injustice are influenced by our manipulations, future research should

manipulate threat and perspective taking and have men report their own standards of injustice along with their estimated out-group standards.

Another limitation for the current study is that the researchers only assessed the influence of perspective taking and threat for men (i.e., the advantaged group). Although previous research has addressed perspective taking related to women and the gender wage gap (Miron et al., 2017b), no study has addressed the influence of threat regarding women and the gender wage gap. Without addressing how women respond to threat under different types of perspective-taking mindsets, the current study cannot determine how policies threatening an out-group may influence an in-group (i.e., how threatening men influence women). Specifically, the researchers have no way of knowing if women would favor the low-threat policy more than the high threat or if it was the other way around. The researchers are also not able to address how disadvantaged groups respond to in-group threat (i.e., how threatening women influences women). Without addressing how policies threatening women may influence their outcomes related to the gender wage gap, the current study cannot determine if disadvantaged groups respond to threat differently than do advantaged groups. Future studies should address in one single study how both men and women respond to threat to their own group as it relates to the gender wage gap.

Finally, one major limitation regarding the current study is its internal validity. The gender wage discrepancy is a real-world issue and policies addressing the wage gap need to be tested in real-world settings. Since the current study used hypothetical policies and was conducted online, it is likely that internal validity may be an issue. One

explanation for the lack of influence regarding threat is that the policies the researchers presented may not have seemed realistic to participants and that the perspective-taking manipulation was not potent enough. One way to address this issue is to collaborate with current businesses and see how they are currently addressing the gender wage gap. This would allow researchers to hopefully use different threat manipulations and create more realistic potential policies in future work. Researchers should also recruit current businesses for future studies to examine the logistics behind implementing policies to decrease the gender wage gap. This would be the first steps in truly addressing the gender wage gap in real-world settings and would help increase internal and external validity related to gender wage gap research.

Table 1
Responses by low and high identifiers to different kinds of threat (adapted from Branscombe et al., 1999)

Class of threat	Who is likely to respond	Type of response
Categorization	Low identifiers	Stress in-group heterogeneity Further disidentification Stress unique personal qualities
	High identifiers	None
Distinctiveness	Low identifiers	Perceive groups at superordinate level
	High identifiers	Display out-group derogation Perceive in-group homogeneity Increased self-stereotyping
Value	Low identifiers	Further disidentification
	High identifiers	Display out-group derogation Perceive in-group homogeneity Increased self-stereotyping
	Low identifiers	Undo morally objectionable behavior
	High identifiers	Defensive reactions Perceive in-group heterogeneity
Acceptance	Low identifiers	None
	High identifiers	Display out-group derogation Sliming (to attain acceptance)

Table 2

Planned Comparisons for Estimated Out-Group Standards, Willingness to Help the Out-Group, and Perceptions of the Gender Wage Gap

	PT/High threat	PT/Low threat	SO/High threat	SO/Low threat
Contrast #1	3	-1	-1	-1
Contrast #2	1	0	-1	0
Contrast #3	0	-1	0	1

Table 3
Means and Standard Deviations for Dependent Variables

	PT/Low		PT/High		SO/Low		SO/High	
	<i>M (SD)</i>		<i>M (SD)</i>		<i>M (SD)</i>		<i>M (SD)</i>	
	High ID	Low ID						
Estimated Out-Group Standards	3.38 (1.32)	2.12 (1.23)	5.04 (1.73)	2.45 (1.32)	4.53 (1.59)	2.80 (1.46)	3.23 (2.31)	3.34 (1.78)
Willingness to Help the Out-Group	3.57 (2.73)	4.43 (1.94)	3.22 (2.68)	4.00 (2.51)	3.90 (2.16)	3.93 (2.30)	3.90 (2.43)	3.57 (1.94)
Perceptions of the Gender Wage Gap	3.93 (1.72)	4.64 (1.84)	4.56 (1.29)	5.17 (2.34)	3.90 (2.26)	3.83 (1.82)	4.50 (1.97)	4.50 (2.07)
Gender Group Identification	6.37 (.36)	2.45 (.80)	6.56 (.34)	2.49 (.77)	6.68 (.36)	2.73 (.59)	6.64 (.31)	2.48 (.64)

Note: PT = Perspective-taking manipulation; SO = Stay Objective manipulation; Low = Low Threat Level manipulation; High = High Threat manipulation; High ID = High Gender Group Identification (1 SD above the Gender Identification Mean); Low ID = Low Gender group identification Score (1 SD below the Gender Identification Mean).

Table 4
Summary of Regression Analysis for Estimated Out-Group Standards (N = 207)

Variables	Step 1			Step 2			Step 3			Step 4		
	<i>B</i>	<i>SE</i> <i>B</i>	β									
Salary Negotiable	-1.02*	.27	-.26*	-1.05*	.26	-.26*	-1.05*	.26	-.27*	-1.08*	.26	-.27*
Perspective-taking				.25	.25	.07	.26	.25	.07	.27	.25	.07
Threat Level				.15	.25	.04	.15	.25	.04	.19	.25	.05
Gender Group ID				.31*	.10	.22*	.32*	.10	.22*	.31*	.09	.22*
PT x Threat							-.60	.50	-.08	-.60	.50	-.08
PT x ID							-.05	.19	-.02	-.02	.19	-.01
Threat x ID							-.18	.19	-.06	-.18	.19	-.06
PT x Threat x ID										-.77*	.38	-.14*
<i>R</i> ² Change		.07*			.05*			.01			.02*	
<i>F</i> for <i>R</i> ² Change		14.57			6.93			4.32			4.36	

Note: Perspective-taking was coded 1 = Perspective-taking and 2 = Stay Objective; Threat Level of coded 1 = Low Threat and 2 = High Threat; PT = Perspective-taking manipulation; Threat = Threat Level manipulation; ID = Gender Group Identification Score

* $p < .05$.

Table 5
Summary of Regression Analysis for Willingness to Help the Out-Group (N = 207)

Variables	Step 1			Step 2			Step 3			Step 4		
	<i>B</i>	<i>SE</i> <i>B</i>	β									
Salary Negotiable	.17	.30	.04	.17	.30	.04	.16	.30	.04	.17	.30	.04
Perspective-taking				.07	.29	.02	.07	.29	.02	.07	.29	.02
Threat Level				-.31	.29	-.08	-.32	.29	-.08	-.33	.29	-.08
Gender Group ID				-.04	.11	-.03	-.06	.11	-.04	-.05	.11	-.03
PT x Threat							.03	.57	.003	.03	.58	.003
PT x ID							.19	.22	.06	.18	.22	.06
Threat x ID							.24	.22	.08	.24	.22	.08
PT x Threat x ID										.13	.44	.02
<i>R</i> ² Change		.002			.01			.01			<.001	
<i>F</i> for <i>R</i> ² Change		.32			.47			.53			.47	

Note: Perspective-taking was coded 1 = Perspective-taking and 2 = Stay Objective; Threat Level of coded 1 = Low Threat and 2 = High Threat; PT = Perspective-taking manipulation; Threat = Threat Level manipulation; ID = Gender Group Identification Score

**p* < .05.

Table 6
Summary of Regression Analysis for Perceptions of the Gender Wage Gap (N = 207)

Variables	Step 1			Step 2			Step 3			Step 4		
	<i>B</i>	<i>SE</i> <i>B</i>	β									
Salary Negotiable	.45	.23	.14	.44	.23	.13	.43	.24	.13	.43	.24	.13
Perspective-taking				.15	.22	.05	.15	.22	.05	.15	.23	.05
Threat Level				.06	.22	.02	.06	.23	.02	.06	.23	.02
Gender Group ID				-.04	.09	-.03	-.04	.09	-.04	-.04	.09	-.04
PT x Threat							-.10	.45	-.02	-.10	.45	-.02
PT x ID							-.08	.17	.03	.08	.17	.03
Threat x ID							-.12	.17	.05	.12	.17	.05
PT x Threat x ID										-.04	.35	-.01
<i>R</i> ² Change		.02			.003			.004			<.001	
<i>F</i> for <i>R</i> ² Change		3.79			1.10			.73			.64	

Note: Perspective-taking was coded 1 = Perspective-taking and 2 = Stay Objective; Threat Level of coded 1 = Low Threat and 2 = High Threat; PT = Perspective-taking manipulation; Threat = Threat Level manipulation; ID = Gender Group Identification Score

* $p < .05$.

Figure 1
Simple Slopes for High Gender Group Identification

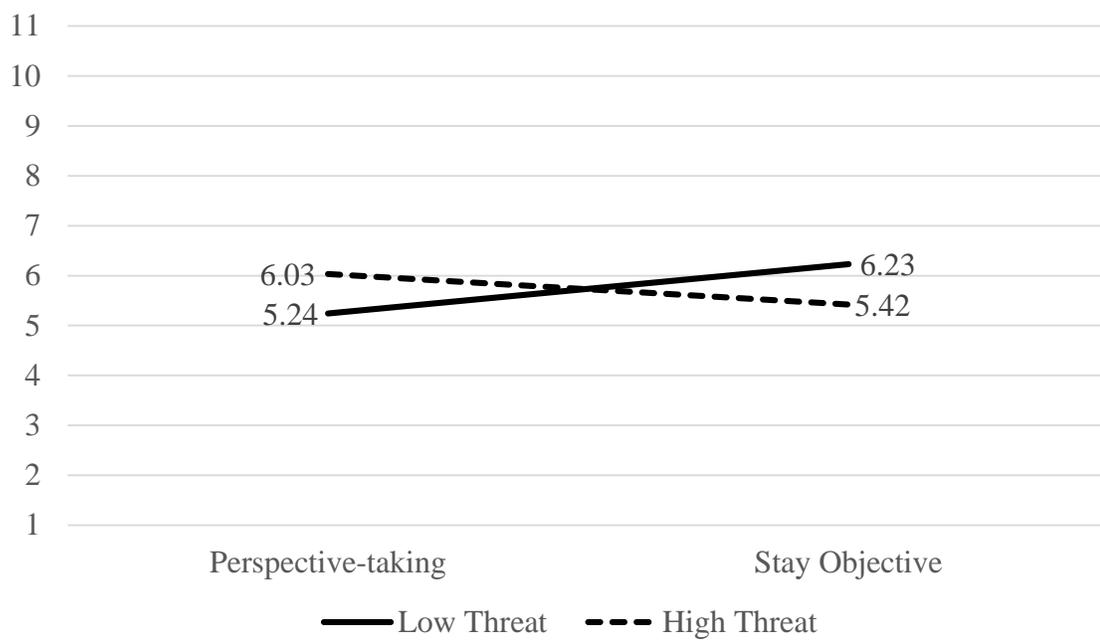
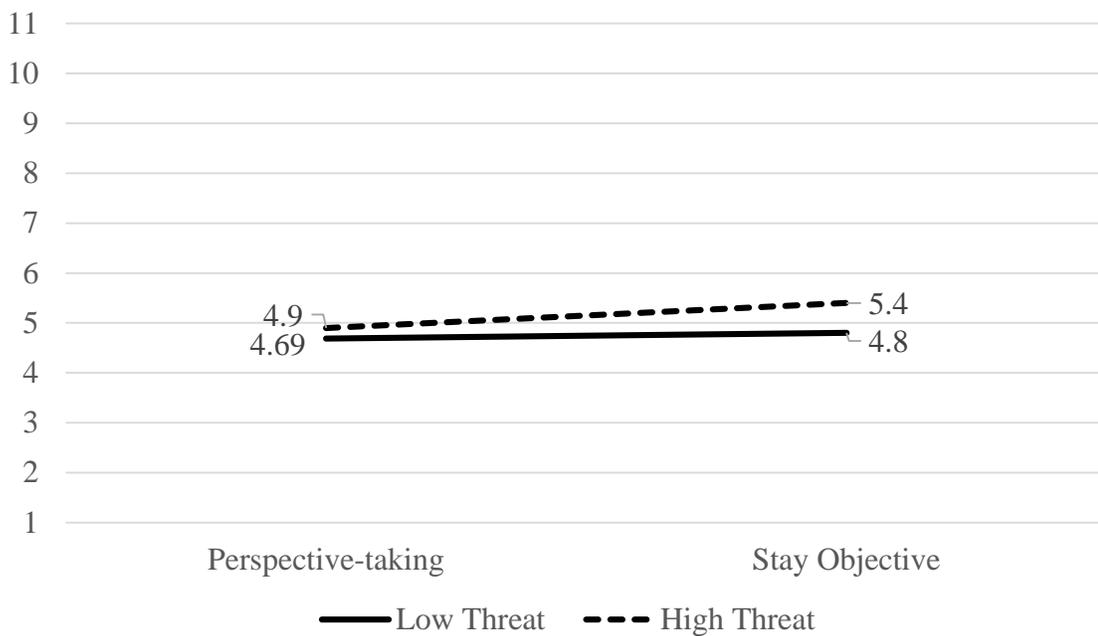


Figure 2
Simple Slopes for Low Gender Group Identification



APPENDIX A
RECRUITMENT POSTING FOR MECHANICAL TURK®

APPENDIX A
RECRUITMENT POSTING FOR MECHANICAL TURK®

Recruitment for survey on perceptions of policy changes related to work situations (30 min)

We are researchers studying relationships at the University of Wisconsin Oshkosh. We are currently recruiting participants for a study on potential policies in the work place. If interested, please click this link for more information.

To participate you must be:

- Employed Full-time
- Male
- At least 18 years of age

APPENDIX B
INFORMED CONSENT FORM

APPENDIX B
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 (#972912).

Why is this study being done? This study is being conducted to learn more about how individuals perceive different policy changes at their place of employment.

What do you want me to do? You will be asked to take part in an online survey that will take about 30 minutes. You will be asked questions about your background, current employment status, to rate a potential policy change at your place of employment, and information regarding your gender.

Are there any benefits to participating? You will receive \$0.50 via your Mechanical Turk® account for completing this survey. As well, you can choose to receive a summary of the findings of this research by providing your e-mail at the end of the survey.

Are there any risks? It is not expected that you will experience any discomfort during the study. 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 compensation.

Are my answers confidential? Yes. Although the researchers will be asking for your worker ID, it will not be connected to your survey responses in any way. Please be aware that any work performed on Amazon MTurk® can potentially be linked to information about you on your Amazon public profile page, depending on the settings you have for your Amazon profile. We will not be accessing any personally identifying information about you that you may have put on your Amazon public profile page. We will store your MTurk® worker ID separately from the other information you provide to us. If you do choose to provide your e-mail address for a summary of the results, it will not be connected with your survey responses in any way.

Who will have access to my data? Only the primary investigator will have access to your information and answers (but not your identities). Your worker IDs and e-mail addresses (should you choose to provide them) will be stored in a separate survey data file than your survey responses, thus any identifying information will not be connected with your survey responses in any way. 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. The website that hosts the survey is on a secure server and all data will be password-protected and locked in a secure research office for five years as per ethical process. Amazon® and Mechanical Turk® will not have access to your answers. 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 Danica Kulibert (kulibd01@uwosh.edu) If you would prefer to speak with an individual who is not directly involved in this research, please contact the director of the Psychology Ethics Committee at the University of Wisconsin—Oshkosh (Institutional Review Board For Protection of Human Participants, 920-424-1415).

By clicking the “Submit” button at the bottom of this page 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 heterosexual and the age of majority in the state you currently reside. This means that I am the age at which I can legally consent to participate (at least 18 years of age).

- Submit

APPENDIX C
GENDER WAGE GAP COVER STORY

APPENDIX C
GENDER WAGE GAP COVER STORY

This study explores men's perception of the salary wage gap in their company and how this wage gap may negatively affect their female workers. Below you will find some factual information about the existing gender wage gap in the United States. After reading the passage, we will ask you to fill out some questions regarding it.

“Recent statistics show that women who work full time, year-round, earn 78.6 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 \$431,000 less than the average man who works in the same occupation, doing the same job. 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.”

APPENDIX D
DEMOGRAPHICS INCLUDING CURRENT EMPLOYMENT INFORMATION

APPENDIX D
DEMOGRAPHICS INCLUDING CURRENT EMPLOYMENT INFORMATION

1. What is your gender? Man Woman Other
2. What is your current gross annual salary (before taxes and other deductions)?
_____ OR write down your gross monthly salary _____
3. Please write down your current job title. _____
4. Is your salary negotiable? YES NO
5. Did you negotiate your salary when you first started your current job? Yes No
Salary Not negotiable
6. What is the size of the company or business you are currently working for? Write
done the number of employees: _____ people
7. Is your position managerial or non-managerial? Managerial Non-Managerial
8. If managerial, how many people are your currently managing? _____
9. What is the gender proportion in your job position at your current workplace?
___% men / ___% women
10. Do you have access to information about salary discrepancy? YES NO
11. What is your age? _____
12. For how many years have you been working? Please write down the total number
of years. _____
13. Are you working full-time or part-time? Full-time Part-time

14. What is your ethnicity?

- African American/Black
- Asian American/Asian
- European American/White
- Hispanic/Latino(a)
- Indian or Pakistani
- Middle East
- American Indian
- 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

17. What is your country of residence? _____

18. How do you think your salary compares to salaries of women in the company/business you are working for?

0 1 2 3 4 5 6 7
 Much lower About the same Much higher

19. How do you think your salary compares to salaries of everyone in the company/business you are working for?

0 1 2 3 4 5 6 7
 Much lower About the same Much higher

20. How many times in your life time did you ask for a salary increase? (Circle a number)

0 1 2 3 4 5 6 more than 6 times

21. How many times in your life did you ask for a bonus? (Circle a number)

a. 1 2 3 4 5 6 more than 6 times

APPENDIX E
POTENTIAL POLICY CHANGE (LOW THREAT CONDITION AND HIGH THREAT
CONDITION)

APPENDIX E
POTENTIAL POLICY CHANGE (LOW THREAT CONDITION AND HIGH THREAT
CONDITION)

We are investigating various strategies to reduce the existing gender salary gap that is negatively affecting women, tailored for specific companies.

LOW THREAT:

Based on the size of your company, one proposed strategy that could work to help reduce the gender salary gap is for companies to **provide a wage raise for women employees via government-funded programs.**

Although men earn more money than their equally qualified female coworkers, this strategy would allow to address women's salary inequity in your company without reducing men's salaries.

OR

HIGH THREAT:

Based on the size of your company, one proposed strategy that could work to help reduce the gender salary gap is **for companies to provide a wage raise for women by increasing their salary via the redistribution of everyone's salary.**

Because men earn more money than their equally qualified women coworkers, this strategy would allow to address women's salary inequity in your company by reducing men's salaries and thereby evenly distributing money across all employees.

APPENDIX F
ESTIMATED OUT-GROUP STANDARDS (STAY-OBJECTIVE AND PERSPECTIVE-TAKING)
(MIRON ET AL., 2017A)

APPENDIX F

ESTIMATED OUT-GROUP STANDARDS (STAY-OBJECTIVE AND PERSPECTIVE-TAKING)
(MIRON ET AL., 2017A)

Research has shown that the way people answer questions is affected by the instructions they are given, so please answer the following questions about the existing gender wage gap and the policy mentioned earlier using the instructions given below.

What is your gender? **Man** Woman Other

Stay Objective Instructions:

When answering the following questions, please try to **be as objective and detached as possible about how women are feeling about the gender wage gap.** Try not to concern yourself with attending to all the information presented. Just concentrate on trying **to stay objective to women's situation and the implications for their everyday life and well-being.**

OR

Perspective-taking Instructions:

When answering the following questions, please **try to imagine how women are feeling about the gender wage gap.** Picture to yourself just how women are dealing with the situation during a typical day of their lives. Try not to concern yourself with attending to all the information presented. Just concentrate on trying **to imagine women's situation and the implications for their everyday life and well-being.**

1. How large would the discrepancy between men's salary and the salary of equally qualified women coworkers have to be in order **those women** to conclude that the discrepancy between is **unfair to them**?
 - less than 10% discrepancy
 - 10 % discrepancy
 - 20% discrepancy
 - 30% discrepancy
 - 40% discrepancy
 - 50% discrepancy
 - 60% discrepancy
 - 70% discrepancy
 - 80% discrepancy
 - 90% discrepancy
 - more than 90% discrepancy

2. For how long would the salary discrepancy between **men coworkers and equally qualified women coworkers** in your company have to continue in order for **those women** to conclude that the discrepancy is **unfair to them**?
- for less than 3 months
 - for 6 months
 - for 1 year
 - for 1.5 years
 - for 2 years
 - for 3 years
 - for 4 years
 - for 5 years
 - for 6 years
 - for 7 years
 - for more than 7 years
3. How many women in your company would need to be affected in order for **them** to conclude that the discrepancy between men's salaries and women's salaries is **unfair to them**?
- less than 10% 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
 - more than 90% of women
4. For how long would men's salaries have to be higher than the salaries of equally qualified women coworkers' in order for **those women** to conclude that the discrepancy is **unfair to them**?
- for less than 3 months
 - for 6 months
 - for 1 year
 - for 1.5 years
 - for 2 years
 - for 3 years
 - for 4 years
 - for 5 years

- for 6 years
- for 7 years
- for more than 7 years

5. What percentage of women coworker's life outcomes (having a baby, buying a house, etc.) would have to be affected by the salary discrepancy in order **for them** to conclude that the discrepancy between your men's salaries and women's salaries is **unfair to them**?

- less than 10% discrepancy
 - 10 % discrepancy
 - 20% discrepancy
 - 30% discrepancy
 - 40% discrepancy
 - 50% discrepancy
 - 60% discrepancy
 - 70% discrepancy
 - 80% discrepancy
 - 90% discrepancy
 - more than 90% discrepancy
6. How large would the discrepancy between men's salaries and the salary of equally qualified women in your company have to be in order for **your women coworker to approach the supervisor to ask for a salary increase**?
- less than 10% discrepancy
 - 20% discrepancy
 - 30% discrepancy
 - 40% discrepancy
 - 50% discrepancy
 - 60% discrepancy
 - 70% discrepancy
 - 80% discrepancy
 - 90% discrepancy
 - 100% discrepancy
 - more than 100% discrepancy

APPENDIX G
WILLINGNESS TO HELP THE OUT-GROUP (MIRON ET AL., 2017A)

APPENDIX G
WILLINGNESS TO HELP THE OUT-GROUP (STAY-OBJECTIVE AND PERSPECTIVE-TAKING) (MIRON ET AL., 2017A)

1. How likely are you to encourage your female worker to go ask for a salary increase, upon discovering that she is earning less than you?

0	1	2	3	4	5	6	7
Not at all							Extremely likely

2. How likely are you to encourage your female coworker to go talk the her supervisor about the unequal pay affecting her, upon discovering that she is earning less than you?

0	1	2	3	4	5	6	7
Not at all							Extremely likely

3. How likely are you to encourage your female coworker to support a salary adjustment policy designed to bring the salaries of women like her to a level equivalent of your salary?

0	1	2	3	4	5	6	7
Not at all							Extremely likely

APPENDIX H
PERCEPTIONS OF THE GENDER WAGE GAP (MIRON ET AL., 2017A)

APPENDIX H
PERCEPTIONS OF THE GENDER WAGE GAP (MIRON ET AL., 2017A)

1. American society has reached the point where women and men have equal opportunities for achievement

1	2	3	4	5	6	7	8	9
Extremely Disagree							Extremely Agree	

2. The current gender wage discrepancy is not due to intentional discrimination against women

1	2	3	4	5	6	7	8	9
Extremely Disagree							Extremely Agree	

3. The current gender wage discrepancy is a by-product of the way today's competitive American society works

1	2	3	4	5	6	7	8	9
Extremely Disagree							Extremely Agree	

4. The existing wage gap between men and women is justified because they are doing different jobs

1	2	3	4	5	6	7	8	9
Extremely Disagree							Extremely Agree	

5. Men and women have different qualities that make them better suited for different jobs and roles

1	2	3	4	5	6	7	8	9
Extremely Disagree							Extremely Agree	

6. The gender wage gap has gotten smaller over the years.

1	2	3	4	5	6	7	8	9
Extremely Disagree							Extremely Agree	

APPENDIX I
MANIPULATION CHECKS FOR PERSPECTIVE-TAKING AND THREAT MANIPULATIONS

APPENDIX I
MANIPULATION CHECKS FOR PERSPECTIVE-TAKING AND THREAT
MANIPULATIONS

1. When filling out the survey, to what extent did you try to imagine how women employees are effected by the gender wage discrepancy you read about?

0	1	2	3	4	5	6	7
Not at all				Completely			

2. When filling out the survey, to what extent did you try to stay objective regarding how women employees are effected by the situation you read about?"

0	1	2	3	4	5	6	7
Not at all				Completely			

3. When filling out the survey, to what extent did you feel the potential policy change could negatively impact you?

0	1	2	3	4	5	6	7
Not at all				Completely			

4. When filling out the survey, to what extent did you feel the potential policy change could negatively impact men employees?"

0	1	2	3	4	5	6	7
Not at all				Completely			

APPENDIX J
GENDER GROUP IDENTIFICATION SCALE (MIRON ET AL., 2011)

APPENDIX J
GENDER GROUP IDENTIFICATION SCALE (MIRON ET AL., 2011)

Please indicate **your agreement or disagreement with the following statements may be** 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. | | | | | | |
| _____ | | | | | | |
| Being a member of my gender group is an important reflection of who I am. | | | | | | |

**APPENDIX K
DEBRIEFING FORM**

APPENDIX K
DEBRIEFING FORM
Mechanical Turk Completion Code: 7566

Thank you for taking the time to complete this study regarding the gender wage gap and intergroup interactions. In particular, we are interested in understanding how men and women differ in their understanding and perception of the gender wage gap.

In this study, we are interested in your reactions to gender wage inequality in American society. Some participants are asked to stay objective when reading the paragraph about gender inequality, others were asked to take the perspective of the women and imagine how gender inequality affects them. We are looking at how much evidence of gender wage inequality participants ask for when determining whether gender wage inequality in their company is unfair to their female coworkers. In a previous study we found that men asked for more evidence than women; for instance, men think that 70% of women should have salaries that are lower than the salaries of equally qualified men, in order to call the existing gender wage inequality unfair. In this study, we predict that, when asked to remain objective about their female coworkers' lower salaries, men will estimate that women ask for more evidence of gender inequality than will men who imagined women's situation in order to conclude that the salary discrepancy is unfair to women. In addition, we are investigating men's perceptions of various strategies used to address the gender wage gap, when they are asked to imagine women's situation or when asked to remain detached. The results will help us assess the effectiveness of these strategies in the workplace.

If you are interested in learning more about the research on the gender wage gap and social group interactions, the following resources are an excellent place to start:

- Epley, N., Caruso, E., & Bazerman, M. H. (2006). When perspective taking increases taking: Reactive egoism in social interaction. *Journal of Personality and Social Psychology*, *91*, 872-889.
- Falomir-Pichastor, J. M., & Frederic, N. S. (2013). The dark side of heterogeneous in group identities: National identification, perceived threat, and prejudice against immigrants. *Journal of Experimental Social Psychology*, *49*(1), 72-79
- Miron, A. M., Warner, R., & Branscombe, N. R. (2011). Accounting for group differences in appraisals of social inequality: Differential injustice standards. *British Journal of Social Psychology*, *50*, 342–353.

Thank you again for taking the time to complete this survey. If you have any questions or comments, please feel free to contact the primary investigator Danica Kulibert (kulibd01@uwosh.edu). This study is on file with the University of Wisconsin Oshkosh Institutional Review Board (#972912).

Please type in the code listed at the top of this form in order to obtain payment for your participation in this study. Thank you for your participation.

References

- Adams, G., Tormala, T. T., & O'Brien, L. T. (2006). The effect of self-affirmation on perceptions of racism. *Journal of Experimental Social Psychology, 42*, 616–626.
- Babcock, L., Gelfand, M., Small, D., & Stayn, H. (2006). “Gender differences in the propensity to initiate negotiations.” In D. D. Crèmer, M. Zeelenberg, & J. K. Murnighan (Eds.), *Social psychology and economics* (pp. 239–259). Mahwah, NJ: Lawrence Erlbaum.
- Babcock, L., & Loewenstein, G. (1997). Explaining bargaining impasse: The role of self-serving biases. *Journal of Economic Perspectives, 11*, 109–126.
- Batson, C. D., Ahmad, N., & Lishner, D. A. (2009). Empathy and altruism. In S. J. Lopez & C. R. Snyder (Eds.), *Oxford handbook of positive psychology* (2nd ed.). New York, NY: Oxford University Press.
- Batson, C. D., Thompson, E. R. & Chen, H. (2002) Moral hypocrisy: Addressing some alternatives. *Journal of Personality and Social Psychology* 83, 330–39.
- Blader, S. L., & Rothman, N. B. (2014). Paving the road to preferential treatment with good intentions: empathy, accountability and fairness. *Journal of Experimental Social Psychology, 50*, 65-81.
- Branscombe, N. R., Doosje, B., & McGarty, C. (2002). Antecedents and consequences of collective guilt. In D. M. Mackie & E. R. Smith (Eds.), *From prejudice to intergroup emotions: Differentiated reactions to social groups* (pp. 49–66). New York, NY: Psychology Press.

- Branscombe, N. R., Ellemers, N., Spears, R. & Doosje, B. (1999). The context and content of social identity threat. In N. Ellemers, R. Spears, & B. Doosje (Eds.), *Social identity: Context, commitment, content* (pp. 35–58). Oxford, UK: Blackwell Science.
- Branscombe, N.R. (1998). Thinking about one's gender group's privileges or disadvantages: Consequences for well-being in women and men. *British Journal of Social Psychology, 37*, 167-184.
- Branscombe, N. R., Ellemers, N., Spears, R., & Doosje, B. (1999). The context and content of social identity threat. In N. Ellemers, R. Spears, & B. Doosje (Eds.), *Social identity: Context, commitment, content* (pp. 35–58). Oxford, UK: Blackwell.
- Branscombe, N. R., & Miron, A. M. (2004). Interpreting the ingroup's negative actions toward another group: Emotional reactions to appraised harm. In L. Z. Tiedens & C. W. Leach (Eds.), *The social life of emotions* (pp. 314 –335). New York: Cambridge University Press
- Bruneau, E. G., & Saxe, R. (2012). The power of being heard: The benefits of “perspective-giving” in the context of intergroup conflict. *Journal of Experimental Social Psychology, 48*, 855–866.
- Byrne, Z. S., Felker, S., Vacha-Haase, T., & Richard, K. M. (2011). A comparison of responses on the Attitudes Towards Women Scale and Attitudes Towards Feminism Scale: Is there a difference between college-age and later-life adults

with the original norms? *Measurement and Evaluation in Counseling and Development*, 44, 248-264.

Cambridge English Dictionary. (2016). Retrieved from

<http://dictionary.cambridge.org/us/dictionary/english/gender-pay-gap>

Clore, G. L., & Jeffrey, K. M. (1972). Emotional role playing, attitude change, and attraction toward a disabled person. *Journal of Personality and Social Psychology*, 23, 105-111.

Doosje, B., Branscombe, N. R., Spears, R., & Manstead, A. S. R. (2006). Antecedents and consequences of group-based guilt: The effects of in-group identification. *Group Processes and Intergroup Relations*, 9, 325–338.

Ehrlinger, J., Gilovich, T., & Ross, L. (2005). Peering into the bias blind spot: People's assessment of bias in themselves and others. *Personality and Social Psychology Bulletin*, 31, 680 – 692.

Epley, N., Caruso, E., & Bazerman, M. H. (2006). When perspective taking increases taking: Reactive egoism in social interaction. *Journal of Personality and Social Psychology*, 91, 872-889.

Esser, J. K., & Komorita, S. S. (1975). Reciprocity and concession making in bargaining. *Journal of Personality and Social Psychology*, 31, 864– 872.

Ethier, K., & Deaux, K. (1994). Negotiating social identity when contexts change: Maintaining identification and responding to threat. *Journal of Personality and Social Psychology*, 67, 243–251.

- Falomir-Pichastor, J., & Frederic, N. (2013). The dark side of heterogeneous ingroup identities: National identification, perceived threat, and prejudice against immigrants. *Journal of Experimental Social Psychology, 49*, 72-79.
- Gaertner, S. L., & Dovidio, J. F. (2000). Reducing intergroup bias: The Common Ingroup Identity Model. Philadelphia, PA: Psychology Press.
- Gaertner, S. L., & Dovidio, J. F. (2005). Understanding and addressing contemporary racism: From aversive racism to the common ingroup identity model. *Journal of Social Issues, 61*, 615–639.
- Galinsky, A. D., Maddux, W. W., Gilin, D., & White, J. B. (2008). Why it pays to get inside the head of your opponent: The differential effects of perspective taking and empathy in negotiations. *Psychological Science, 19*, 378–384.
- Galinsky, A. D., & Moskowitz, G. B. (2000). Perspective-taking: Decreasing stereotype expression, stereotype accessibility, and in-group favoritism. *Journal of Personality & Social Psychology, 78*, 708-724.
- Hornsey, M. J. (2008). Social identity theory and self-categorization theory: A historical review. *Social and Personality Psychology Compass, 2*, 204 –222.
- Johnson, J. D., Simmons, C., Trawalter, S., Ferguson, T., & Reed, W. (2003). Variation in Black anti-White bias and target distancing cues: Factors that influence perceptions of “ambiguously racist” behavior. *Personality and Social Psychology Bulletin, 29*, 609–622.
- Long, K., & Spears, R. 1997. The self-esteem hypothesis revisited: Differentiation and the disaffected. In R. Spears, P. J. Oakes, N. Ellemers, & S. A. Haslam (Eds.),

The social psychology of stereotyping and group life: 296-317. Oxford: Blackwell.

- Mackie, D. M., Devos, T., & Smith, E. R. (2000). Intergroup emotions: Explaining offensive action tendencies in an intergroup context. *Journal of Personality and Social Psychology, 79*, 602-616.
- Miller, D. T. (1999). The norm of self-interest. *American Psychologist, 54*, 1-8.
- Miller, D. T., & Ratner, R. K. (1998). The disparity between the actual and assumed power of self-interest. *Journal of Personality and Social Psychology, 74*, 53-62.
- Miller, K. (2016). *The Simple Truth about the Gender Wage Gap* (Spring 2017 Edition). AAUW, Washington, D.C.
- Miron, A.M., Branscombe, N. R., & Agnello, C. (2017a). *Empathy, perspective taking, and estimation of outgroup standards of injustice*, Unpublished Manuscript, University of Wisconsin Oshkosh.
- Miron, A.M., Branscombe, N. R., Olson, N., & Agnello, C. (2017b). *Estimating ingroup and outgroup standards of injustice: Group-based differences regarding evidence needed to call intergroup inequality unfair*, Unpublished Manuscript, University of Wisconsin Oshkosh.
- Miron, A. M., Branscombe, N. R., Lishner, D., Otradovec, T., & Frankowski, S. (2017c). *The effect of perspective taking on injustice standards and empathic concern when the victim is one's (collective) self*. Unpublished Manuscript. University of Wisconsin Oshkosh.

- Miron, A. M., Branscombe, N. R., & Schmitt, M. T. (2006). Collective guilt as distress over illegitimate intergroup inequality. *Group Processes and Intergroup Relations, 9*, 163-180
- Miron, A. M., Warner, R., & Branscombe, N. R. (2011). Accounting for group differences in appraisals of social inequality: Differential injustice standards. *British Journal of Social Psychology, 50*, 342-353.
- Preacher, K. J., Curran, P. J., & Bauer, D. J. (2006). Computational tools for probing interaction effects in multiple linear regression, multilevel modeling, and latent curve analysis. *Journal of Educational and Behavioral Statistics, 31*, 437-448.
- Rouhana, N.N., & Fiske, S.T. (1995). Perception of power, threat and conflict intensity in asymmetric intergroup conflict. *Journal of Conflict Resolution, 39*, 49-81.
- Schmitt, M.T., & Branscombe, N.R. (2002). The meaning and consequences of perceived discrimination in disadvantaged and privileged social groups. *European Review of Social Psychology, 12*, 167-199.
- Schmitt, M. T., Branscombe, N. R., Kobrynowicz, D., & Owen, S. (2002). Perceiving discrimination against one's gender group has different implications for well-being in women and men. *Personality and Social Psychology Bulletin, 28*, 197-210.
- Shnabel, N., & Nadler, A. (2008). A needs-based model of reconciliation: Satisfying the differential emotional needs of victim and perpetrator as a key to promoting reconciliation. *Journal of Personality and Social Psychology, 94*, 116-132.

- Soper, D.S. (2016). A-priori Sample Size Calculator for Multiple Regression [Software]. Retrieved from <http://www.danielsoper.com/statcalc>
- Son Hing, L. S., Bobocel, D. R., & Zanna, M. P. (2002). Mentocracy and opposition to affirmative action: Making concessions in the face of discrimination. *Journal of Personality and Social Psychology*, 83, 493– 509.
- Swim, J. K., Cohen, L. L., & Hyers, L. L. (1998). Experiencing everyday prejudice and discrimination. In J. K. Swim, & C. Stangor (Eds.). *Prejudice: The target's perspective* (pp. 37-60). San Diego, CA: Academic Press.
- Tajfel, H. (Ed.) (1978). *Differentiation between social groups: Studies in the social psychology of intergroup relations*. London: Academic Press.
- Tajfel, H., & Turner, J. C. (1986). The social identity theory of intergroup behaviour. In S. Worchel & W. G. Austin (Eds.), *Psychology of Intergroup Relations* (pp. 7–24). Chicago, IL: Nelson-Hall.
- Tajfel, H., & Turner, J. C. (1979). An integrative theory of intergroup conflict. In W. G. Austin, & S. Worchel (Eds.), *The social psychology of intergroup relations* (pp. 33–48). Monterey, CA: Brooks/Cole.
- Turner, J. C., & Brown, R. (1978). Social status, cognitive alternatives, and intergroup relations. In H. Tajfel (Ed.), *Differentiation between social groups: Studies in the social psychology of intergroup relations* (pp. 201-234). London: Academic Press.
- Turner, J. C., Hogg, M. A., Oakes, P. J., Reicher, S. D., & Wetherell, M. S. (1987). *Rediscovering the social group: A self-categorization theory*. Oxford, England: Blackwell.

Vorauer, J. D., & Sasaki, S. J. (2009). Helpful only in the abstract? Ironic effects of empathy in intergroup interaction. *Psychological Science, 20*, 191–197.

Zebel, S., Doosje, B., & Spears, S. (2009). How perspective-taking helps and hinders group-based guilt as a function of group identification. *Group Processes & Intergroup Relations, 12*, 61-78.