Bossy, abrasive and a bit too aggressive: the unique double bind of agentic women in the workplace

Lindsay Ciancetta

University at Albany, State University of New York, lindsay.ciancetta@gmail.com

The University at Albany community has made this article openly available. Please share how this access benefits you.

Follow this and additional works at: https://scholarsarchive.library.albany.edu/legacy-etd

Part of the Business Administration, Management, and Operations Commons, Feminist, Gender, and Sexuality Studies Commons, and the Industrial and Organizational Psychology Commons

Recommended Citation

https://scholarsarchive.library.albany.edu/legacy-etd/2025

This Dissertation is brought to you for free and open access by the The Graduate School at Scholars Archive. It has been accepted for inclusion in Legacy Theses & Dissertations (2009 - 2024) by an authorized administrator of Scholars Archive.
Please see Terms of Use. For more information, please contact scholarsarchive@albany.edu.
BOSSY, ABRASIVE AND A BIT TOO AGGRESSIVE:
THE UNIQUE DOUBLE BIND OF AGENTIC WOMEN IN THE WORKPLACE

by

Lindsay Ciancetta

A Dissertation
Submitted to the University at Albany, State University of New York
in Partial Fulfillment of
the Requirements for the Degree of
Doctor of Philosophy

College of Arts & Sciences
Department of Psychology

2018
# Table of Contents

List of Tables .................................................................................................................. v  
List of Figures .................................................................................................................. vi  
Abstract .......................................................................................................................... vii  
Acknowledgements ........................................................................................................ viii  
Chapter 1: General Introduction .................................................................................... 1  
Chapter 2: Review of the Literature and Hypotheses ..................................................... 8  
  Gender role Norms ........................................................................................................ 9  
  Violation of Gender role Norms .................................................................................. 11  
  Early Research: Identifying the Backlash Effect .............................................................. 11  
  Recent Research: Specifying the Criterion and Outcomes of the Backlash Effect .......... 17  
  Gender Differences in Narrative Feedback ...................................................................... 20  
  Backlash Effect in Narrative Performance Feedback ....................................................... 24  
  Individual Level Outcomes of the Backlash Effect .......................................................... 26  
  Backlash Effect and Perceived Supervisor Support ........................................................ 28  
  Perceived Supervisor Support and Distal Individual Outcomes ...................................... 30  
  Backlash Effect and Distal Individual Outcomes ............................................................ 32  
Chapter 3: Study 1 Methodology, Results and Discussion ............................................... 37  
  Study 1: Methodology .................................................................................................. 38  
    Participants and Procedures ....................................................................................... 38  
    Operationalization of the Backlash Effect .................................................................. 38  
    Operationalization of Gender Dominance of Job Role .............................................. 41  
  Study 1: Results ......................................................................................................... 41  
  Study 1: Discussion ...................................................................................................... 52  
  Limitations and Future Research ................................................................................. 56
Appendix B ................................................................. 134
Appendix C ................................................................. 135
Appendix D ................................................................. 136
Appendix E ................................................................. 137
Appendix F ................................................................. 138
Appendix G ................................................................. 139
Appendix H ................................................................. 140
Appendix I ................................................................. 141
Appendix J ................................................................. 142
Appendix K ................................................................. 143
Appendix L ................................................................. 144
Appendix M ................................................................. 146
Appendix N ................................................................. 147
Appendix O ................................................................. 148
Appendix P ................................................................. 149
Appendix Q ................................................................. 150
Appendix R ................................................................. 151
List of Tables

Table 1. Key Words ................................................................. 40
Table 2. Summary Statistics ..................................................... 42
Table 3. Correlation Matrix .................................................... 42
Table 4. Hierarchical Poisson Regression Analysis for Outcome Measure Agentic Keyword Count ................................................................. 46
Table 5. Hierarchical Poisson Regression Analysis for Outcome Measure Negative Sentiment Count ................................................................. 48
Table 6. Hierarchical Poisson Regression Analysis for Outcome Measure Backlash Effect ...... 51
Table 7. Key Word List for the Negative Agentic Feedback Measure ................. 60
Table 8. Correlation Matrix for Full Pilot Sample ........................................ 65
Table 9. Correlation Matrix for Female Pilot Sample ........................................ 66
Table 10. Correlation Matrix for the Newly Reduced Negative Agentic Feedback Measure ..... 72
Table 11. Correlation Matrix for Only Women Using the Newly Reduced Negative Agentic Feedback Measure ........................................ 74
Table 12. Summary Statistics ..................................................... 76
Table 13. Key Word List for the Negative Agentic Feedback Measure ............... 78
Table 14. Correlation Matrix of Key Variables - Men and Women .................... 83
Table 15. Correlation Matrix of Key Variables - Women Only ......................... 84
Table 16. Hierarchical Regression Analysis for Outcome Measure of PSS .............. 87
Table 17. Hierarchical Regression Analysis for Outcome Measure of AC .............. 88
Table 18. Hierarchical Regression Analysis for Outcome Measure of Turnover Intentions ...... 89
List of Figures

Figure 1. Hypothesized Model of the Relationship between the Backlash Effect, PSS, AC and Turnover Intentions................................................................. 36

Figure 2. Agentic Keyword Count in Performance Feedback of Men and Women within Male-Dominated and Female-Dominate jobs ..................... 47

Figure 3. Average Negative Agentic Feedback for Men and Women ........................................ 50

Figure 4. Mediation Analysis with Path Coefficients.......................................................... 92

Figure 5. Shaping Phenomenon in Perceived Performance Feedback ...................................... 94

Figure 6. Simple Slopes Analysis for Positive Communal Feedback ...................................... 96
Abstract

Women who violate the female gender role norm of communality by acting agentically have been found to experience social repercussions, such as decreased likability (Eagly & Wood, 2012). This phenomenon has been defined as the backlash effect (Rudman, 1998). The current work draws upon this idea and expands the area to a qualitative criterion, specifically written performance appraisals, and explores the relationship between the backlash effect and individual outcomes of perceived supervisor support, affective organizational commitment and turnover intentions. The results of a mixed qualitative and quantitative analysis of a sample of 400 written performance evaluations from two organizations provide evidence of the backlash effect in the written performance feedback context for women at all levels of the organizational hierarchy. The results of a self-report survey of 271 working adults demonstrates only partial support for a relationship between the backlash effect and turnover intentions, but provides guidance for future scale development. Additionally, this study establishes differences between men and women in the experience of performance feedback, including amount of feedback favoring men, differing sensitivity to critical feedback pointing to lower sensitivity for women and evidence of shaping behaviors towards one’s gender role norm. Together, the results support further research of the backlash effect in the area of qualitative performance feedback and development of a self-report measure of the backlash effect to better understand the experiences of performance feedback and professional development for female employees in the workplace.
Acknowledgements

When writing a dissertation, the required pronoun is “I.” But the use of that pronoun is deceiving. This process is far from a solitary journey. As I think back on the past two years of this project and the full five years of this degree, there are so many people that have dedicated time, words of encouragement, guidance and support to get me to where I am today. I am eternally grateful for those who have believed in me and invested in my growth.

The very first person I want to thank is my advisor, Sylvia Roch. She has spent countless hours on revisions of this project from conceptualization to design to feedback, all of which has helped me grow in ways I never imagined. You took me on when your plate was already too full, and I am so grateful to have had the opportunity to work with you so closely over the past few years. I hope we are able to continue our collaboration in the years to come.

This dissertation would not have been possible without the help and guidance of my wonderful committee, Michael Ford and Jason Randall. Your insights and direction on the design of this project and responsiveness to each hurdle and change that had to be made along the way were vital to my success. Thank you for making an intimidating process such a positive experience.

This project would also not have been possible without the support, encouragement and love of those closest in my life. Each of these people has my deepest gratitude. My amazing little cohort, Kim Lepore and Laura Santiago, I could not have asked for two more perfect women to share this journey with. From our very first class together five years ago to the beautiful friendships that have developed since, I feel so fortunate. This experience would not have been the same without you. Laura Severance, for helping me navigate the immense world of research.
when this project was just a small idea. My best friend, Kara Allen, for being my champion through life. You never once called me crazy when I wanted to quit my job and go back to school. Thank you for being my cheerleader through all of this. You always have and always will be my source of inspiration. To my partner, Kevin Loo, I could not have completed this project without you. To say you have been supportive does not capture it. I fear there is not a word in the English language to articulate the weekends you gave up to work with me, the flexibility when plans had to be canceled, the counseling sessions when the frustration got to me and the continual belief that I would get there. I am so lucky every day to have such an incredible man by my side. Lastly to my biggest supporter through all that life has thrown my way, my mother, Lisa Ciancetta. You have never once doubted me, even when I’ve doubted myself. Your love and support through every step of this journey and all the life that happened in between has gotten me to where I am today. You taught me to dream, to persist and to believe that I can do anything I set my mind to. Thank you for being the very best mom and friend I could ask for.
Chapter 1

General Introduction
Research to date shows there is no systematic bias in performance appraisal ratings based upon gender (Roth, Purvis, & Bobko, 2012). Yet we continue to see very different experiences for men and women within professional work environments as highlighted by both mainstream conversations around unfair treatment of women in organizations (e.g., Caprino, 2015) and studies showing differential work outcomes for female versus male employees (e.g., Bureau of Labor Statistics, 2015). Women continue to earn 83% of what men earn, despite representing 52% of all employees in management, professional and related positions (Bureau of Labor Statistics, 2015). Even within the field of Industrial/Organizational Psychology, where one might assume awareness of issues such as gender differences in the workplace, we still see drastic salary differences with women earning on average 10% less than men (SIOP Salary Survey, 2016).

Within the field of Industrial/Organizational Psychology, there has been much emphasis on criterion issues (e.g., Austin & Crespin, 2006; Guion, 2011). Within the area of gender research in performance appraisal, a recent meta-analysis shows the criterion of interest has been solely quantitative differences (Roth, Purvis, & Bobko, 2012), which supports no meaningful differences between ratings of men and women. However, there is minimal research to date that has investigated gender differences in the narrative component of performance evaluations. Recent mainstream articles highlighting applied research studies have found differences in words used to describe the performance of male and female employees (e.g., Caprino, 2015; Snyder, 2014) suggesting the narrative feedback component of performance appraisal may be an important criterion for consideration. With clear differences in employee outcomes and continued concern for differing experiences of women in the workplace, is there
truly no difference in the appraisal of women, as current research would suggest, or have researchers to-date failed to ask the right questions (Wilson, 2012)?

Movement from performance appraisal systems to ongoing performance management systems is a current trend in the area of performance appraisal (Adler, et al., 2016). Performance management systems are intended to be ongoing developmental programs focused on continuous performance feedback episodes (e.g., den Hartog, Boselie & Paauwe, 2004; Murphy & Cleveland, 1995) and show great promise for employee development (Denisi, 2000). These types of programs rely on a range of activities often aimed at continuous feedback, rather than quantitative ratings to encourage employee development (Denisi, 2000). Additional research in this area suggests that employees value narrative feedback, such as that found in annual performance appraisals or in on-going performance management systems, far more than the quantitative ratings (Ferstl & Bruskiewicz, 2000), emphasizing to a greater degree the importance of providing constructive, developmental feedback to employees. As we move to performance management systems involving continuous forms of narrative feedback for employees, the importance of understanding potential disadvantages to subsets of employees becomes increasingly important. Failure to recognize and address issues of systematic gender bias in the feedback components of developmental programs for employees will only serve to increase the already existent differences in employee outcomes for women.

Research to date may help explain some of the differential treatment of women in the workplace and provide guidance in addressing the issue. Social Role Theory (Eagly & Wood, 2012) posits that gender roles stem from a combination of biological and social factors, originally developed as a byproduct of biological differences between the sexes. Based on biological differences, women predominantly cared for child-rearing and household
responsibilities, and men, with stronger upper bodies, were more equipped to handle physically demanding tasks related to gathering of resources (Eagly & Wood, 2012). As the nature of work has shifted from physical to intellectual, socialization has served to maintain stereotypes around gender roles (Eagly & Wood, 2012). These stereotypes come in two forms: descriptive, which focus on how men and women are described, and prescriptive, which refer to how one should act. Prescriptive stereotypes, also referred to as gender role norms, for both men and women have arisen in line with traditional responsibilities (Eagly & Wood, 2012). For men agentic behaviors are expected, which include characteristics such as assertiveness, dominance and self-assurance (Eagly & Wood, 2012). The female gender role norms are communal in nature, characterized by behaviors such as selflessness, humility, nurturing, and thoughtfulness (Eagly & Wood, 2012). According to Social Role Theory, individuals receive social rewards and punishments as a result of conformity or nonconformity, respectively, to gender role norms. Examples of social reward can include liking and cooperation, and examples of social punishments include rejection and neglect (Eagly & Wood, 2012).

Within the workplace, women are in a unique double-bind position, where requirements of the work role and gender roles are often at conflict (Eagly & Carli, 2007). Many work roles require agentic behaviors to be successful, yet the female gender role norms call for communal behaviors. Research to date has focused primarily on women in leadership roles, where agentic behaviors are more often required for success. In line with Social Role theory, results of this double-bind has been coined the backlash effect, where agentic women experience social and economic repercussions for behaving out of line with gender role norms (Rudman, et al., 2012). Quantitative ratings of performance for female leaders exhibiting agentic traits are not significantly different from men (e.g., Eagly, et al., 1992; Rudman, et al., 2012; Williams &
Tiedens, 2016). However, ratings of likability for women have repeatedly been shown to
decrease when violating female gender role norms in the workplace (e.g., Heilman, et al, 2004;
Roth, Purvis & Bobko, 2012; Rudman, 1998; Williams & Tiedens, 2016). Additionally, agentic
women are less likely to receive organizational rewards (Castilla, 2012) and other positive
organizational outcomes like ratings of hireability, promotion or salary increases (e.g., Heilman,
et al, 2004; Roth, Purvis & Bobko, 2012; Rudman, 1998; Williams & Tiedens, 2016). These
results have remained unchanged in the past two decades as highlighted in two separate meta-
analyses (Eagly, 1992; Williams & Tiedens, 2016), suggesting this issue is a long-standing and
persistent one.

Although organizational outcomes of the backlash effect have been investigated, research
has failed to look at individual employee outcomes shown to impact the organization such as
affective organizational commitment, turnover intentions and perceived supervisor support.
Affective organizational commitment (AC) refers to the overall sentiment employees have to
their organization and desire to continue as a member of the organization (Allen & Meyer, 1990)
and has been shown to relate to on-the-job behaviors such as attendance and organizational
citizenship behaviors, and employee well-being (Meyer, et al., 2002). Two additional employee
outcomes that may be related to experiencing the backlash effect are turnover intentions and
perceived supervisor support. Turnover intentions are thoughts an employee has around leaving
the organization in the foreseeable future (Guion, 2011) and relate to employee turnover (e.g.,
Parasuraman, 1982), which is a major cost to organizations (Hinkin & Tracey, 2000). Perceived
supervisor support (PSS) refers to the employee’s perception that a supervisor values the
employee’s contributions and cares about their overall well-being (Eisenberger, Stinglhamber,
Vandenbergh, Sucharski, & Rhoades, 2002; Kottke & Sharafinski, 1988). Perceived Supervisor
Support has been related to both AC (e.g., Casper, Harris, Taylor-Bianco, & Wayne, 2011) and turnover intentions (Eisenberger, et al., 2002) and theoretically relates to experiences of backlash effect, therefore warranting further investigation when considering the impact of the backlash effect on employees in the workplace. These three outcomes, specifically, have been linked to business outcomes for organizations such as turnover (e.g., Parasuraman, 1982), employee engagement (e.g., Saks, 2006) and attendance (e.g., Meyer, et al., 2002), which relate to organizational productivity and profits (Harter, Schmidt & Hayes, 2002). These outcomes also present a unique opportunity for organizations, in that they are able to be both measured and acted upon, granting the opportunity for organizations to improve ultimate monetary organizational outcomes related to the employee experience (Harter, Schmidt & Hayes, 2002).

In summary, the research to date has three main areas of deficit, which the current project addresses. First, research in this area has focused on quantitative ratings of female employees. However, exhibiting obvious bias in the workplace has become both socially unacceptable and illegal (e.g., Civil Rights Act, 1991). Using only numerical ratings of performance may be missing more subtle examples of the backlash effect that has the potential to appear in the written feedback provided along with quantitative ratings of performance. Second, the research has focused primarily on women in leadership roles, failing to account for the experience of female employees occupying various other roles within organizations. As explained by Eagly and Carli (2007), the challenge women face in today’s workforce is no longer represented with the metaphor of a glass ceiling, which indicates equal access to entry and mid-level positions for men and women, but rather a labyrinth of small hurdles relating to a continual balance of occupational and gender role norm conflict. Finally, the research has shown potential external outcomes of the backlash effect, such as lower ratings of promotability and
hireability (e.g., Heilman, et al, 2004; Roth, Purvis & Bobko, 2012; Rudman, 1998), but has failed to investigate the impact of the backlash effect on individual level employee outcomes of AC, turnover intentions and PSS, which have been previously linked to negative feedback (Kuvaas, 2006).

This study aims to address these three deficits in the literature around the experience of the backlash effect for women in appraisal contexts through three research questions. Can the backlash effect be empirically demonstrated in written performance appraisal feedback? Does empirical support for the backlash effect extend to women in individual contributor roles? Does the backlash effect negatively impact individual level employee outcomes of PSS, AC, turnover intentions?
Chapter 2

Review of the Literature and Hypotheses
This literature review will begin by exploring the early research regarding violation of gender role norms and initial establishment of the backlash effect. I will then discuss more recent research on the backlash effect, moving towards socially driven criteria and exploration of organizational outcomes of the backlash effect. Next, the limited research around gender differences in narrative performance feedback will be discussed. Finally, an exploration of potential individual level outcomes of the backlash effect will focus on research regarding Perceived Supervisor Support, Affective Organizational Commitment and turnover intentions. Arguments for both direct relationships between the backlash effect and Affective Organizational Commitment and turnover intentions and indirect relationships via Perceived Supervisor Support will be explored.

Gender role Norms

As mentioned in the general introduction, Social Role Theory provides the theoretical grounding for this research. According to Eagly and Wood (2012), Social Role Theory posits gender role norms set the expectation of how an individual should act, based on one’s gender. Gender roles stem from a combination of biological and social factors, originally developed as a byproduct of biological differences between the sexes. Based on biological differences, women predominantly cared for child-rearing and household responsibilities, and men, with stronger upper bodies, were more equipped to handle physically demanding tasks related to gathering of resources. Each of these roles required characteristics for success. Women’s traditional role required selflessness and a nurturing approach to raise a family. Men’s traditional role as providers required assertiveness and a dominant approach to ensure food and shelter was available to the family. The division of responsibility stems from strengths related to biological differences between the sexes, but ultimately socialization has maintained the different
expectations between the sexes as day to day responsibilities have shifted to intellectually demanding tasks.

Eagly and Wood (2012) also explain that as the nature of work has shifted from physical to intellectual, socialization has served to maintain stereotypes around gender roles. As previously discussed, these stereotypes come in both descriptive and prescriptive forms. Prescriptive stereotypes around gender, here forward referred to as \textit{gender role norms}, for both men and women have arisen in line with traditional responsibilities. For men these are \textit{agentic} behaviors, which include characteristics such as assertiveness, dominance and self-assurance. The female gender role norms are \textit{communal} in nature, characterized by behaviors such as selflessness, humility, nurturing, and thoughtfulness. According to Social Role Theory, individuals receive social rewards and punishments as a result of conformity or nonconformity, respectively, to gender role norms. Examples of social rewards can include liking and cooperation, and examples of social punishments include rejection and neglect. The disbursal and receipt of social rewards and punishments can occur in any environment. The workplace is one specific environment in which gender role norms can influence an individual’s experience.

As described above, for women, aligning with gender role norms means acting in line with communal traits: self-less, thoughtful, nurturing and gentle. However, these traits are not always in line with the behaviors necessary to successfully complete tasks in the work environment. Many occupations require an employee to be assertive, confident or ambitious to be successful. But for women, acting in line with these traits represents a violation of their gender role norm (Eagly & Wood, 2012), which research has shown can result in serious consequences for the female employee, such as ratings of hireability, promotability and salary (e.g., Rudman, 1998; Williams & Tiedens, 2016).
Violation of Gender role Norms

Research investigating consequences of violations of the female gender role norm began as early as the 1960s when women began entering the workforce in vastly larger numbers (e.g., Goldberg, 1968). This was also a time when women started to break out of the traditional female-dominated careers of teacher, secretary or nurse (e.g., Eagly, et al., 1992). Women’s experience in the workplace proved to be very different from men, but it would be another few decades before researchers began to understand the root cause of the differences. By the late 1990s, Rudman (1998) named the social and economic repercussions received by agentic women (i.e. women violating the female gender role norm of communality by acting in line with the agentic male gender role norm) as the backlash effect. Despite the career advances women have made, now representing over 50% of the workforce, women’s experience at work is still starkly different from that of fellow male employees.

**Early research: Identifying the backlash effect.** Eagly et al. (1992) laid the groundwork for this area of research with a meta-analysis synthesizing research regarding appraisals of female leaders to date. Eagly and colleagues (1992) emphasized the idea of leaders being perceived simultaneously in terms of gender and organizational roles, meaning that people are not just evaluated as a leader, but as a man or woman and a leader simultaneously. This is consistent with the concept of gender role spillover, or a carryover into the workplace of gender-based expectations for behavior. Eagly et al. posit that gender role spillover has different consequences for men and women due to the incompatible expectations for the roles of leader and woman. For example, a leader is expected at times to be autocratic or directive, yet these characteristics fall in line with the agentic male gender role norm and directly violate the communal female gender role norm (Heilman & Chen, 2005). When women use an autocratic or
directive leadership style, they are often evaluated unfavorably (Butler & Geis, 1990; Eagly, et al., 1992). Furthermore, self-promoting behaviors can highlight abilities and accomplishments, yet such behaviors have been shown to result in favorable evaluations of men and unfavorable evaluations of women due to the violation of the female gender role norm (Rudman, 1998). Additionally, although direct violation of the female gender role norm can result in unfavorable evaluations of women, failure to act in line with the communal behaviors expected of a woman, such as not engaging in organizational citizenship behaviors, can also result in less favorable evaluations of women compared to men (Heilman & Chen, 2005). As a consequence, women may be devalued relative to male counterparts. This devaluation can emerge as perceptions of lower ability and effectiveness as a leader (Eagly, et al., 1992).

Eagly et al.’s (1992) foundational meta-analysis included all research that could be found comparing perceptions or evaluations of male and female leaders. The main effect tested the difference in overall evaluations of male and female leaders. Overall evaluation includes various dependent variables from the primary studies that provide an evaluation of a leader’s performance (e.g., ability, competence, effectiveness as a leader, satisfaction with a leader and general evaluations). Results showed a slight devaluation of women compared to men when using a weighted mean of effect sizes ($d = -.07$). However, the unweighted effect size did not differ significantly from zero and when issues of homogeneity were addressed the effects were no longer significant. Although these results suggest a slight devaluation of female leaders compared to male counterparts, the lack of a robust, meaningful effect size led to the investigation of potential moderators.

Eagly et al. (1992) found three main moderators: the criterion variable, leadership style and the dominant gender of the work role or organization. When the criterion variable was
leader's competence or participant’s satisfaction with the leader, raters tended to favor men. Leadership style also significantly moderated ratings of leaders, with male-aligned leadership styles relating to more favorable evaluations of male leaders than female leaders. The gender identification of the work role and type of organizational context also moderated the perceptions of leaders, such that women in male-dominated roles or industries were rated significantly less favorably than men. Contrary to intuition, devaluation of female leaders occurred with subordinates of both genders.

After Eagly et al.’s (1992) meta-analysis, two main lines of research continued to focus on the female leader’s experience in the workplace. In the first line of research, Rudman (1998) coined the term backlash effect, where agentic women experience social and economic repercussions for behaving out of line with gender role norms. In a series of three experiments, student participants were asked to interview potential partners for a jeopardy-like game show. In the first experiment, confederates acted in either self-promoting (an agentic trait) or self-effacing (a communal trait) manner, and in subsequent experiments, video tapes of confederates acting in line with one of these two manners were used. In all experiments, participants were asked to rate the confederates on scales of task aptitude, social attraction and hireability. Overall findings from the studies supported the earlier meta-analysis, where competence (i.e. task aptitude) of agentic women was not rated significantly different from men. However, agentic women were viewed as socially deficient (i.e. not socially attractive to the rater) compared to identically presented men, which subsequently lead to discrimination in hiring decisions (i.e. agentic women being rated as less likely to be hired than identically presented men). Interestingly, women, who generally endorse sexist ideologies less than men, reacted as negatively as men, and even more so when rating hireability of self-promoting women, suggesting female raters uphold the female gender
role norm as strongly as men. Since the defining of the backlash effect, quite a few other studies have explored this area of the employee experience (e.g., Heilman & Chen, 2005; Heilman, et al., 2004; Rudman & Glick, 2001).

Building on Rudman’s work regarding the backlash effect, Rudman and Glick (2001) conducted an experiment specifically in a job application context. Undergraduate participants were presented with either a masculine or feminine job description, shown a video of either an agentic or androgynous male or female applicant (i.e. one of 4 possible videos), and answered questions about the applicant they saw. Participants rated the applicants on measures of competence, social skills and hireability. Agentic applicants were rated as more competent than androgynous applicants, regardless of gender, indicating no backlash effect towards agentic women in terms of perceptions of competence. However, agentic women were rated as less socially skilled and less likely to be hired than agentic men. The results were strongest when the job description was feminized, calling for niceness in addition to competence. In this situation, an agentic woman is viewed as violating the female gender role norm of communality, and therefore lacking the traits of niceness requested in the job description. These findings expand upon the earlier research by showing that it is not only acting in line with the male gender role norms, but also failing to act in line with the female gender role norm that can elicit the backlash effect.

Further exploring the backlash effect, Heilman and Chen (2005) conducted two experimental studies that revealed that raters have a differential reaction to women and men when they have, or have not, performed altruistic citizenship behaviors in a work setting (i.e. workplace behaviors which fall in line with the communal expectations of the female gender role norm). Women were shown to be judged more negatively than men regardless of what they did
with respect to helping behavior. When women helped, they were not awarded the high ratings given to men and when women did not help, only women, not men, were given lower performance evaluations and reward recommendations. The second study supported the same insights. When women did not help, they were given more negative recommendations compared to targets who did not have any information about helping behavior, whereas men did not experience the same drop in recommendations. Also, men who helped were given higher recommendation, whereas women who helped were given no different recommendations than those about whom no information about helping was available. This indicates that not only are women penalized for acting in line with male gender role norms, they are also penalized for failing to act in line with the female gender role norm. However, acting in line with the female gender role norm does not benefit women as it does men, it simply prevents the experience of the backlash effect.

Although all the early research supports differences in evaluation of men and women in regards to alignment with and violation of gender role norms, an additional study from Heilman and colleagues (2004) showed the importance of salience of the violation to elicit the backlash effect. In a series of three experiments, descriptions of behavior of male and female employees holding a leadership role in a male-dominated field were presented to participants. In half of these descriptions, the success was clearly described in an annual performance review. In the other half the success was left ambiguous and the target was described as an identified “rising star.” The participants were asked to rate the employees on measures of competence and likeability. As expected, women were only penalized in ratings of likability (not competence) for being successful at a task typical of men, however, only when evidence of their success was salient and straightforward (i.e. the condition where it was explicitly stated in the performance
review) and not when it was more ambiguous. In the second experiment, the job was changed to a female-dominated field (human resources), and the results were not replicated. Together, the results support that women in male-dominated fields, domains considered inconsistent with behavior expected of a woman, were rated as less likable when explicitly demonstrating success. Results also showed that when rated as less likeable, women were also rated as less likely to receive organizational rewards such as salary and promotions.

To summarize, the early research on the violation of female gender role norms established a clear occurrence of the backlash effect, emerging subtly in ratings of competence (e.g., Eagly, et al., 1992), strongly in ratings of likeability (e.g., Heilman, et al., 2004; Rudman & Glick, 2001) and are more likely to occur when the violation is salient to the observer (e.g., Heilman, et al., 2004). The work situations in which the backlash effect occurs was found to span the spectrum of the employee experience, from job applicant hiring decisions (Rudman & Glick, 2001) to hireability opinions (e.g., Rudman & Glick, 2001) and performance evaluations (e.g., Eagly, et al., 1992; Heilman, et al., 2004). These effects are found both when women act in line with the male gender role norm (e.g., Eagly, et al., 1992; Heilman, et al., 2004) or violate the female gender role norm (e.g., Heilman & Chen, 2005). As would be expected, in male dominated industries and work roles, the occurrence of the backlash effect is more likely to occur (e.g., Eagly, et al., 1992). However, contrary to expectation, both men and women instinctively uphold gender role norms and react with the backlash effect when observing female employees violating the female gender role norm (e.g., Eagly et al., 1992; Rudman, 1998). Finally, this early work identified the existence of moderators (e.g., Eagly, et al., 1992), establishing that the backlash effect will only be observed when certain criteria are considered (i.e. criteria related to social perceptions); largely shaping the research in this area for the next decade.
Recent research: Specifying the criterion and outcomes of the backlash effect. The most recent research in the area of the backlash effect in the workplace has turned to targeted criterion, specifically the differentiation of competency versus likability (e.g., Williams & Tiedens, 2016) and the outcomes thereof (e.g., Heilman, et al., 2004; Williams & Tiedens, 2016). In a recent meta-analysis, Williams and Tiedens (2016) explored the occurrence of gender differences for outcomes of competency and likability and expanded the area to explore the role of explicit versus implicit behaviors. Included in the meta-analysis are studies that researched dominance behaviors (i.e. agentic behaviors including dominance and assertiveness that fall in line with the male gender role norm) for men and women. All primary studies have outcome variables of competence, likability or organizational outcomes (i.e. ratings of promotability or hireability) for the employee. Each study’s independent variable was coded as either implicit dominance (i.e. the behavior is communicated passively and non-verbally such as physical proximity to another person or a direct speaking style without hesitations) or explicit dominance (i.e. the dominance behavior is made obvious to the observer, requiring little cognitive ability for the observer to register such as arguing with a group or in an experiment directly labeling someone as dominant). In line with the early research (e.g., Rudman, 1998; Rudman & Glick, 2001), the outcome variable considered was found to influence whether the backlash effect would be observed. There was no difference found in ratings of competence between agentic women and men ($d = .02$), yet agentic women were rated significantly less likable compared male counterparts ($d = -.19$). Mirroring Heilman and colleagues’ (2004) early work, the salience of the gender role violation was found to have a large impact on whether the backlash effect was observed; such that implicit dominance behaviors relate to no difference in likability between men and women ($d = .03, p = n.s.$), whereas explicit dominance behaviors account for a large
difference in likability between men and women ($d = .28, p<.001$). Dominant women (i.e. women violating the female gender role norm) are liked less than dominant men only when the dominance behaviors are obvious to the observer.

Although research to date provides evidence of the backlash effect in terms of likability, it is the relationship between ratings of likability and differences in organizational outcomes observed for male and female employees (e.g., slower promotion rates; Blau & DeVaro, 2007; low prevalence of women in high level leadership roles; Bureau of Labor Statistics, 2015) that makes differences in likability ratings of particular importance in the workplace. Arguably, promotion rates should be connected to job performance and therefore one would expect performance ratings for female employees to be lower, given the slower promotion rates seen (Blau & DeVaro, 2007). In an attempt to shed light on this issue, Roth, Purvis and Bubko (2012) conducted a meta-analysis of job performance measures from field studies. The sample included studies that measured job performance of both male and female employees and a small sample of studies that measured ratings of promotability. Results showed that women generally scored slightly higher than men on ratings of job performance ($d = -.11, p = n.s.$), yet ratings of promotion potential were higher for male employees. These results suggest it is not a performance issue that hold women back in obtaining desirable organizational rewards (i.e. promotions, salary increases). To expand upon the field findings, Williams and Tiedens’ (2016) meta-analysis used both experimental and field samples to investigate whether evidence of the backlash effect is also present when the criterion of interest is organizational outcomes. Their pattern of results was consistent with that of likability, such that women who violated the female gender role norm by exhibiting dominant behaviors were rated lower on outcomes such as hireability ($d = -.58, p <.001$). These results are consistent with earlier primary studies that
showed women rated as less likeable were less likely to receive organizational rewards and other positive organizational outcomes like ratings of hireability, promotion or salary increases (e.g., Heilman, et al, 2004; Rudman, 1998; Rudman & Glick, 2001).

To summarize, the most recent research in this area provides further support of the early research. Evidence of the backlash effect is more likely to take the form of ratings of likability rather than competence (e.g., Rudman, 1998; Williams & Tiedens, 2016). This falls in line with the current understanding of the backlash effect (i.e. social repercussions for gender role nonconformity), as ratings of likability are an indicator of a desire to socially approach or engage with another individual (Rudman, 1998). Over the past four decades, preliminary studies and meta-analyses have established the occurrence of the backlash effect is not a consistent phenomenon, but requires certain conditions. Specifically, the criterion must be one of a social nature such as likability rather than competence, or be an organizational outcome influenced by social interactions, such as ratings of hireability or promotability (e.g., Heilman, et al, 2004; Rudman, 1998; Rudman & Glick, 2001; Williams & Tiedens, 2016). Additionally, the violation of the gender role norm must be salient to the observer for a meaningful effect to occur (e.g., Heilman, et al., 2004; Williams & Tiedens, 2016) and occurs more often when sampling employees in a male-dominated field, where women are more likely required to violate the female gender role norm in order to succeed at a work task (e.g., Eagly, et al., 1992; Williams & Tiedens, 2016). This effect is only observed for women, as men who act in line with the female gender role norm in the work place are rewarded with higher performance ratings and organizational rewards (Heilman & Chen, 2005). To date, research regarding the backlash effect has been largely quantitative in nature, with a distinct lack of qualitative approaches. Given that the backlash effect emerges in socially driven outcomes, qualitative evaluations of an employee
present a new criterion that may expand our current understanding of how the backlash effect emerges in the work setting.

**Gender Differences in Narrative Feedback**

Even though qualitative research on gender differences in performance evaluation is limited, there are currently four primary studies that attempt to investigate this area. Chung, Marshall and Gordon (2011) conducted a study specifically investigating the narrative performance feedback provided by 76 counseling professionals randomly assigned to four experimental conditions manipulating race (Black or White) and sex (male or female) of counseling supervisees. A paper vignette, including a written description of a supervisee and a two-page case presentation (i.e. a written a synopsis of the supervisee’s clinical work with a mental health client) were used, which, according to Chung et al. (2001) is typical work for the field. The same materials were used for all four conditions except for the manipulation of supervisee race and sex. Contrary to what previous research has found (e.g., Eagly, et al., 1992; Williams & Tiedens, 2016), there was an interaction of respondent and supervisee gender such that male respondents provided less positive feedback and lower ratings on performance when the supervisee was depicted as a woman rather than a man. There was no effect with female respondents nor in the race manipulation. This study provides an initial investigation of gender differences in narrative feedback regarding performance, but it is not without limitations. Of primary concern, it only investigated overall positive, negative or neutral nature of the feedback, which is a very broad dependent variable. Previous research in this area has shown a targeted, socially related outcome variable is necessary for the backlash effect to be observed. Additionally, it is not surprising that a main effect for supervisee gender was not found in this
research as it is set in the counseling field, where communal traits are highly valued for success, therefore gender role norms are unlikely to be violated for female employees.

More recently, Snyder (2014) published an article in a popular magazine regarding a study she conducted investigating performance appraisals from high performing employees in the technology industry that better aligns with research on the backlash effect. Although not published in an academic journal, many of the short-comings of the research conducted by Chung, Marshall and Gordon (2011) were addressed, and as such, the findings of Snyder’s work are largely in line with the quantitative research on the backlash effect. Snyder collected 248 performance reviews from 180 people (105 men, 75 women) in technology-related roles and evaluated each review for the presence of negative feedback and constructive feedback, particularly in reviews determined to be critical in nature (i.e. not an entirely positive review, one that contains some element of criticism or negative feedback). Of 248 reviews, 177 (71%) contained critical feedback. Of reviews received by men, 58.9% contained critical feedback, whereas 87.8% of reviews received by women did. In terms of negative versus constructive feedback, 71 of the reviews of female employees had negative feedback, and 23 had only constructive feedback. Conversely, only 2 of the reviews of male employees had negative feedback and 81 had only constructive feedback, indicating that male employees were receiving more helpful feedback targeted at improvement, rather than just criticizing them. Of the reviews that included critical feedback, 94 reviews of women had criticism and only 13 did not have criticism. Men also had a large number including criticism (83), yet 58 were written without criticism. Snyder also found the critical feedback received by men was heavily geared towards suggestions for additional skills to develop. She found that women also received the same kind of constructive feedback, but in addition more women also received negative personality
criticism (personality criticism showed up in 2 of the 83 critical reviews received by men and 71 of the 94 critical reviews received by women). In line with Social Role Theory and previous research, in Snyder’s (2014) research words in line with agentic characteristics, like bossy, abrasive, strident, and aggressive were used to describe women's behaviors as leaders. When women expressed discontent or objection, words in line with the female gender role were used, such as emotional and irrational. One specific agentic term, abrasive, was used 17 times to describe 13 different women. Among the agentic words, only aggressive showed up in reviews of male employees, with 2 out of the 3 times encouraging the male employee to be more of that trait. Although no statistical significance testing was reported, the largely unbalanced allocation of critical, non-productive feedback to men and women indicates a serious issue in narrative performance feedback related to employee gender.

In additional support of gender related differences in written performance evaluations, two qualitative projects centered on the academic reference letter uncovered systematic gender differences (Madera, Hebl & Martin, 2009; Trix & Psenka, 2003). The academic job market has largely been a male-dominated field, and, therefore, occurrence of the backlash effect is likely to be observed and warrants inclusion in the consideration of narrative performance feedback (e.g., Eagly, et al., 1992). In a qualitative study of three hundred letters of recommendation for medical faculty in the mid-1990s, Trix and Psenka (2003) analyzed letters according to length, naming practices, negative language, and sex-linked terms. Of interest when considering the backlash effect, women received shorter letters, had more letters of minimal assurance (15% compared to 6% for men) and doubt raising comments present (24% of women’s letters and 12% of men’s letters). Women were also more likely to be referenced for training and teaching (i.e. female gender role norm aligned responsibilities, depicting women as students and teachers), whereas
men were more likely to be referenced for research skills and abilities or career (i.e. male gender role norm aligned responsibilities, depicting men as researchers and professionals). Although this research does not explicitly test, nor find, results in line with the backlash effect, it does establish a trend of women receiving systematically different performance feedback in the narrative context and gender role norms being highlighted when looking at a field in which the backlash effect is likely to occur. Additional research on academic letters of recommendation also found systematic differences based on gender (Madera, Hebl & Martin, 2009). The qualitative analysis revealed women were described as more communal and less agentic than men, and that communal characteristics had a negative relationship with hiring decisions ($\beta = -.28$). As with the earlier quantitative study on academic job reference letters (Trix & Psenka, 2003), the results do not directly align with those expected of the backlash effect, but support that systematic gender differences in narrative performance appraisal are to be expected when evaluating feedback in a male-dominated field, differences that may have a real influence on important organizational outcomes such as hiring.

To summarize, the four qualitative studies investigating gender differences in narrative performance appraisals used different approaches and resulted in three studies uncovering gender differences in feedback. First, two studies on letters of reference for academic job applicants established systematic gender differences in evaluation of applicants in this male-dominated field (Madera, Hebl & Martin, 2009; Trix & Psenka, 2003).Aligned with these findings, in an evaluation of employees in technology-related positions (i.e. another male-dominated field) Snyder (2014) found large differences in the feedback provided to men and women. Yet, in a fourth qualitative evaluation of gender differences, Chung, Marshall and Gordon (2011), using an experimental approach with paper vignettes, found no differences in evaluation of supervisee
performance based on gender of the supervisee. Additionally, Chung, Marshall and Gordon (2011) found that supervisor gender interacted with supervisee gender to produce differences in evaluations of supervisee performance. This finding does not align with previous research investigating the backlash effect (e.g., Eagly, et al., 1992; Williams & Tiedens, 2016), including the other qualitative evaluations (Snyder, 2014). The discrepancy can be explained by both the broad criterion used (i.e. positive, negative, neutral feedback), which has been shown to be ineffective for observing the backlash effect (e.g., Eagly, et al., 1992; Williams & Tiedens, 2016), and evaluating performance in a female-dominated field, where observation of the backlash effect is less likely because behaviors aligned with the female, rather than the male, gender role norm are necessary for success (e.g., Eagly et al., 1992). Additionally, the three studies using real evaluations of female employees all uncovered systematic differences based on the employee’s gender. Taken together, the systematic gender differences in perceptions of job applicants revealed in the two studies regarding academic reference letters (Madera, Hebl & Martin, 2009; Trix & Psenka, 2003) and Snyder’s (2014) work uncovering gender-based differences in word choice and sentiment in employee performance evaluations, provides support for the exploration of the backlash effect in narrative performance feedback.

**Backlash Effect in Narrative Performance Feedback**

Narrative feedback provides an opportunity for raters to put in writing their subjective impression of an employee’s performance. As explained by Social Role Theory, violation of the gender role norm elicits social repercussions for individuals (Eagly & Wood, 2012), or the backlash effect (Rudman et al., 2012). A female employee exhibiting agentic characteristics in line with responsibilities of the job most likely will violate the gender role norm for women, thereby eliciting the backlash effect in the form of social repercussion. In the feedback context,
the backlash effect will likely present through reference to the gender role norm violation, specifically the behaviors that violate the gender role norm (i.e. the agentic characteristics; e.g., Eagly & Wood, 2012; Snyder, 2014). When the gender role norm has not been violated, the rater will not be inclined to redirect behavior to be in line with the female gender role norm, and therefore reference to gender role norms will not occur. Evidence of this is provided in Synder’s (2014) work described in the previous section that showed managers’ word choice and tone of feedback differ between high performing men and women when female employees violate the gender role norm. Specifically, when female employees work in a male dominated field, their performance appraisal contained higher quantities of words referring to behaviors in line with the agentic gender role norm (Snyder, 2014). Although the disproportionate occurrence of agentic terms does not directly assess the backlash effect, it is an important phenomenon to first establish before the backlash effect can be operationalized in the written context. The current study will seek to replicate these findings.

Hypothesis 1: Gender dominance of the work role moderates the presence of agentic terms in performance feedback such that, within male-dominated roles, the presence of agentic terms is greater in women’s feedback than men’s feedback.

Furthermore, when raters provide feedback, they tend to rely on a more general impression than specific examples of performance (Denisi & Williams, 1988). Therefore, when the backlash effect has been triggered, the feedback should be in line with the general impression of the employee. As supported by Social Role Theory, this general impression will be more negative than it would have been in the absence of a gender role norm violation (Eagly & Wood, 2012). Only one study has shown preliminary evidence of such an effect, with agentic words in women’s feedback being more negative in nature than in men’s feedback (Snyder, 2014). Snyder
looked at the sentiment of the sentence in which the agentic word occurred. The current research seeks to expand on this finding to evaluate whether the dominant sentiment of the full evaluation is more negative when agentic terms are present.

*Hypothesis 2:* Gender moderates the relationship between agentic terms and feedback valence such that the use of agentic terms is more strongly correlated with negatively-phrased feedback for women than it is for men.

Taken together, hypotheses one and two represent the occurrence of the backlash effect in qualitative performance feedback, thereby addressing the first research question; does empirical support for the backlash effect replicate in written performance appraisal feedback? The second deficit in the previous research to date is the focus exclusively on women in leadership roles (e.g., Eagly et al., 1992; Williams & Tiedens, 2016) due to the alignment of leadership skills and responsibilities with male gender role norms (Eagly et al., 1992). However, individuals in non-leadership or individual contributor roles (i.e. roles in which a person does not have any supervisory responsibilities) may still need to exhibit agentic characteristics to successfully complete job responsibilities. For example, an individual contributor can be ambitious in the projects taken on, can be directive in interactions with coworkers or be outspoken in team meetings. Expanding upon the previous research focusing exclusively on women in leadership roles, the current study will include employees in both leadership and individual contributor roles.

*Hypothesis 3:* Women in both leadership and individual contributor roles will experience the backlash effect when violation of gender role norms occurs (a), but women in leadership roles more frequently experience the backlash effect (b).

**Individual Level Outcomes of Backlash Effect**
To date, research on the backlash effect has established relationships between violations of the female gender role norm and important organizational outcomes for female employees such as hireability, promotability and salary increases (e.g., Heilman, et al., 2004; Rudman & Glick, 2001). However, there has been a distinct lack of research looking at how the backlash effect impacts employee attitudes and behaviors important to organizations, such as feelings of commitment to the organization or intentions to stay. The next section of this literature review aims to explore possible individual level outcomes that may result from experiencing the backlash effect.

Kluger and DeNisi (1996) showed in their meta-analysis that feedback is not always effective in improving performance; in fact, in just over one third of feedback interventions, there was a negative impact on performance. In part, this can be explained by the nature of the feedback given to the employee. In this meta-analysis, Kluger and DeNisi propose a preliminary Feedback Intervention Theory. According to Kluger and DeNisi, there are three levels of control that are hierarchically organized: task learning, task motivation and meta-task processes. Meta-task processes include self-related processes, or rather a focus on the self. When feedback is given, the nature of the feedback has the ability to direct the receiver’s attention at various levels of the hierarchy. When feedback is directed at the person level (i.e. the message conveys something about the individual’s character or personality) rather than the behavior level, it directs the employee’s attention to the self and therefore towards self-preservation rather than improving the behaviors related to performance. Kluger and DeNisi found that as attention is moved away from the task and up the hierarchy, the feedback effectiveness decreases. By definition, the backlash effect, and feedback containing the backlash effect, will be directed at the person level as the content is directed at the nature or characteristic of the person, including
behaviors that are unrelated to their work but rather how they conduct themselves outside of gender role expectations, suggesting receipt of such feedback will redirect attention to the self. This refocus of attention to the meta-task level is also proposed to relate to negative outcomes for the employee, such as negative affect (Kluger & DeNisi, 1996).

As would be anticipated, previous research has supported the proposed and intuitive relationship between receiving negative feedback and heightened levels of negative affect (Ilies, de Pater, & Judge, 2007). Furthermore, given that raters tend to rely on general perceptions of an employee in conducting a performance appraisal (Denisi & Williams, 1988), the rating is more likely to be representative of the way an employee typically acts or preforms, not one extraordinary moment in the evaluation cycle. Therefore, it is likely many instances of violating the gender role norm, rather than a single instance, would elicit the backlash effect in performance appraisal. Additionally, the written performance evaluation is only one instance of feedback given to the employee during that period of time. Between formal evaluations, informal performance feedback is common in the workplace and is likely to reflect the formal evaluation (e.g., London & Smither, 2002). Therefore, if the backlash effect is present in the narrative performance evaluation, it is likely the employee is receiving the backlash effect in informal interactions with that evaluator as well. Over time, repeated exposure to negative experiences in the workplace can also influence less fleeting employee outcomes such as affective commitment, turnover intentions (Meyer, et al., 2002) and perceived supervisor support (Cole, Bruch & Vogel, 2006).

**Backlash effect and perceived supervisor support.** Perceptions of supervisor support have been argued to be especially important due to the role of a supervisor in the day to day experience of an employee and the impact a supervisor can have on the employee’s career
trajectory (Glazer, 2006). It has also been argued that positive interactions promote, whereas negative interactions are expected to reduce feelings of supervisor support (Cole, Bruch & Vogel, 2006). Feedback containing the backlash effect is in direct violation of what defines supervisor support. By definition, perceived supervisor support (PSS) refers to the employee’s perception that a supervisor values the employee’s contributions and cares about his/her overall well-being (Kottke & Sharafinski, 1988). The backlash effect is a form of social repercussion for the violation of something out of an employee’s control (i.e. the employee’s gender and gender role norms accordingly; Rudman, et al., 2012). The backlash effect, by nature, does not relay a message of concern for the well-being of the employee, nor express value of employee contributions (Eisenberger, et al., 2002). Rather, it is focused at the person level, which directs attention to self-preservation, an instinct elicited when feeling attacked, not supported (Kluger & Denisi, 1996).

Providing support of this assertion, in a survey study of 241 employees in a German company investigating the relationship between emotions, supervisor support and employee outcomes of hardiness and cynicism, Cole, Bruch and Vogel (2006) found that negative emotions associated with the work environment negatively related to perceptions of supervisor support ($r = -.50$, $p < .01$). Additionally, previous research has supported an intuitive relationship between receiving negative feedback and heightened levels of state negative affect (e.g., Ilies, de Pater, & Judge, 2007) and this state negative affect may influence to what extent a supervisor is seen as supportive. Based on this research and the premise that the backlash effect is a violation of the basic definition of PSS, it would follow that experiencing the backlash effect will negatively relate to feelings of PSS.
Hypothesis 4: There is a negative relationship between receiving the backlash effect and perceptions of supervisor support.

Perceived supervisor support and distal individual outcomes. PSS has been shown to positively relate to affective commitment (AC, Casper, Harris, Taylor-Bianco, & Wayne, 2011; Gagnon & Michael, 2004) and negatively relate to turnover intentions (Gagnon & Michael, 2004). These established relationships are of importance as PSS may help explain relationships between receiving the backlash effect and more distal employee outcomes of AC and turnover intentions. Of note, turnover intentions, rather than actual turnover, was selected as an outcome variable as this construct represents an employee experience (i.e. the desire to leave one’s job). The individual nature of turnover intentions is in line with the current research objective to investigate individual level outcomes, expanding on previously researched outcomes of the backlash effect that focus on organizational level outcomes for the employee (e.g., hiring, promotion, and raises; Williams & Tiedens, 2016). Therefore, turnover intentions, rather than turnover, is the most appropriate outcome variable for consideration in the current research.

One issue to be addressed before exploring the empirical literature is the mismatch of levels between the experience of the backlash effect and the distal individual outcomes being considered (i.e. feelings of AC and turnover intentions). The backlash effect represents an interaction at the supervisor level, whereas the feeling of AC or turnover intention is directed at the organizational level. Although the backlash effect occurs at the supervisor level, the supervisor acts as a representation of the organization for that employee (Eisenberger, Jones, Aselage, & Sucharski, 2004) and can influence perceptions of the greater organization for the individual (e.g., Eisenberger, Jones, Aselage, & Sucharski, 2004; Eisenberger, et al., 2002). In a series of three studies, Eisenberger and colleagues (2002) found that PSS temporally relates to
changes in perceived organizational support, and ultimately employee turnover intentions. In the first longitudinal study, PSS at time one related to perceived organizational support at time two, supporting the influence PSS can have on perceptions of the greater organization. Additionally, in a single survey study, Eisenberger and colleagues (2002) found that PSS was negatively related to turnover intentions, and it was the perception of the organization that mediated the relationship between the two. These findings support the role that interactions at the supervisor level can have on organizational level outcome variables, suggesting a mediated effect between the backlash effect (i.e. a negative interaction with a supervisor) and AC and turnover intentions warrants further examination.

Not only has research established a relationship between employee sentiments at the supervisor and organizational levels, it has specifically established a relationship between PSS and both AC and turnover intentions. To date, there have been numerous primary studies that have looked at the relationship between PSS and AC (e.g., Casper, Harris, Taylor-Bianco, & Wayne, 2011; Gagnon & Michael, 2004; Singlhamber & Van Denberghe, 2003). Results of all these studies have been consistent, with the relationship between these two constructs falling in the moderate strength range. In a longitudinal study, Singlhamber and Van Denberghe (2003) investigated the relationship between PSS and AC, as well as other affective and behavioral outcomes. Of particular importance, Singlhamber and Van Denberghe found a correlation between feelings of PSS at time one and AC three months later ($r = .34$, $p < .01$). Telling the same story, a study of 168 employees in a Brazilian company were surveyed on feelings of PSS and AC (Casper, et al., 2011). A significant, positive relationship between PSS and AC of similar strength to the previous research was found ($r = .38$, $p < .01$). In addition to the PSS and AC relationship, turnover intentions have also been considered as an outcome. Gagnon and Michael
(2004) in a survey of 577 employees of three furniture manufacturing companies found support for PSS as a mechanism influencing both AC ($\beta = .86$, $p < .05$) and turnover intentions ($\beta = -.72$, $p < .05$).

Given the previously established relationship between PSS and both AC and turnover intentions, it is predicted that these relationships will be replicated in the current study. Expanding on the previous research, considering the anticipated relationship between the backlash effect and PSS, PSS is expected to act as an explanatory mechanism for the expected relationship between experiences of the backlash effect and both AC and turnover intentions.

*Hypothesis 5: The relationships between presence of the backlash effect and AC (A) and turnover intentions (B) are mediated by PSS.*

**Backlash effect and distal individual outcomes.** To date, there has been no research directly linking the experience of the backlash effect with AC and turnover intentions. However, there has been research linking other antecedents that share characteristics with the backlash effect, which suggest that direct relationships between the backlash effect and distal employee outcomes may exist in addition to the indirect relationship anticipated via PSS. The main shared characteristic among research in this area is the experience of a role conflict (i.e. the behaviors for success at home do not align with the behaviors for success in the workplace; Cortina, 2008; Meyer, et al., 2002), which aligns with the role conflict present with the occurrence of the backlash effect between the gender role and the work role. Additionally, the antecedents explored, including the backlash effect, refer to negative interactions between an employee and either supervisors or coworkers in the workplace (Cortina, 2008; Kuuvas, 2006; Rudman, 1998). In light of the commonality of role conflict and negative workplace interactions amongst established antecedents of workplace incivility and the backlash effect, this section will review
the empirical research that establishes an expectation for a direct relationship between the backlash effect and distal individual outcomes of AC and turnover intentions.

Exploring the antecedents of AC, Meyer and colleagues (2002) conducted a meta-analysis including 155 independent studies and found that both work experiences and personal characteristics are antecedents of AC. Of particular interest to the current research, the work experience identified as role conflict exhibited a negative relationship with AC ($\rho = -0.33$; Meyer, et al., 2002). Additionally, positive experiences with the supervisor, such as interactional justice, related to greater AC ($\rho = 0.50$; Meyer, et al., 2002), suggesting negative interactions with a supervisor (as anticipated when receiving the backlash effect) may negatively influence the experience of affective commitment.

In support of Meyer et al.’s findings, and expanding them to the feedback context, Kuvas (2006) conducted a study on performance feedback satisfaction and AC. In a survey design, 593 participants from multiple banks were asked questions regarding satisfaction with their performance feedback, AC and turnover intentions. As anticipated, performance feedback satisfaction was positively related to AC ($r = 0.33$, $p < 0.00$; Kuvas, 2006). It should be noted, the feedback satisfaction measure focused on the feedback given from the organization, so it cannot be directly related to the backlash effect from a supervisor. However, it logically follows that receiving feedback including the backlash effect, which directs attention to the level of the self and self-preservation (Kluger & Denisi, 1996), will elicit negative emotions and perceptions of the workplace. This begins to lay the groundwork for a relationship between the backlash effect as represented by performance feedback and AC.

Turnover intentions were also explored in Kuvas’ (2006) work, where a negative relationship between performance feedback satisfaction and turnover intentions was uncovered ($r$
= -.39, p < .01). Additionally, turnover intentions were investigated as a main outcome in Cortina’s (2008) work on selective incivility (i.e. low intensity behaviors based on sex or race that potentially inflict harm, yet lack a clear conscious intention) in the workplace. These behaviors are based upon implicit stereotypes, or stereotypes occurring unintentionally and unconsciously, stemming from social categorization (i.e. naturally placing people into categories such as gender). The grounding in implicit stereotypes relates closely to the backlash effect, which identifies implicit prescriptive stereotypes of the female gender role, and the violation there of, as eliciting social repercussions (Rudman, 1998). Similar to the research on the backlash effect, according to Cortina (2008), implicit stereotypes are often evoked in the work setting, and career women are a common target for more hostile, envious stereotypes. Therefore, inclusion of the research around workplace incivility towards women prompts the exploration of a direct relationship between the backlash effect and turnover intentions.

Furthermore, in a field study, Lim, Cortina and Magley (2008) surveyed 1158 employees of a large U.S. circuit, federal court. A significant relationship was found between the general experience of workplace incivility and turnover intentions ($r = .37, p < .01$). Expanding upon their general investigation, in a second study, the experience of workplace incivility was broken out to personal (i.e. coming from a single person) and workgroup (i.e. coming from a group of people regularly encountered at work; Lim, Cortina & Magley, 2008). In a sample of 271 employees from a municipal company, the relationship between incivility and turnover intentions was stronger, compared to the relationship in study one, when the type of incivility was personal ($r = .50, p < .01$). As part of a larger model including satisfaction with various aspects of work, mental and physical health, the relationship between experiences of personal incivility still displayed a strong relationship with turnover intentions ($\beta = .34$). Considering the backlash effect
as a specific example of a personal workplace incivility, it is predicted that experiencing the backlash effect will relate to greater turnover intentions.

To summarize, in addition to a mediated relationship between the backlash effect and both AC and turnover intentions via PSS, tangentially related research supports an investigation of a direct relationship between the backlash effect and the outcome variables of interest. All research discussed focuses on antecedents involving a role conflict and interactions with supervisors or coworkers in the work environment. Meyer et al. (2002) found work experiences involving a role conflict relate to lower levels of AC. Moving to the performance feedback context, Kuuvas, (2006) found that satisfaction with performance feedback positively relates to AC and negatively relates to turnover intentions. Additionally, in work on selective workplace incivility, Lim, Cortina and Magley, (2008) established a positive relationship between personal incivility and turnover intentions, suggesting a similar pattern between the backlash effect (i.e. a specific form of personal incivility) and turnover intentions may exist. Taken together, the work in related fields provide a groundwork for exploring a potential direct relationship between the backlash effect and AC and turnover intentions in addition to a mediated relationship via PSS. For a visualization of the proposed relationships, see Figure 1.

*Hypothesis 6:* There is a negative relationship between individuals receiving the backlash effect and AC.

*Hypothesis 7:* There is a positive relationship between individuals receiving the backlash effect and turnover intentions.
Figure 1. Hypothesized model of the relationship between the backlash effect, PSS, AC and turnover intentions.
Chapter 3

Study 1: Methodology, Results and Discussion
The research questions and hypotheses proposed in the previous sections were investigated over two studies. The first study, a mixed method approach using both qualitative and quantitative methods on an existing applied dataset addressed two of the research questions (can the backlash effect be empirically demonstrated in written performance appraisal feedback? and does empirical support for the backlash effect extend to women in individual contributor roles?).

**Study 1: Methodology**

**Participants and procedures.** Data for this study includes 400 archival employee performance appraisals from two professional services organizations. The performance evaluations came from the annual employee performance reviews. Data included the written feedback provided about the employee’s past performance. Additionally, basic demographic variables of gender, ethnicity, age, position tenure, and position level (individual contributor, leader) were provided by the companies to be used in the analysis.

Based on the results of a power analysis for a multiple regression with interaction effects, expecting a small effect size of .15, a random sample of 400 employee reviews from the two organizations were used. To ensure all hypotheses were able to be addressed, the sample population of 6000 performance appraisals was broken into a 2x2 matrix, gender of employee (man or woman) and gender dominance of the job role (male or female; full operationalization found in the section below), and a random sample of 100 performance appraisals was taken from each category. All participants also had organization coded to be used as a control variable in the analysis.
Operationalization of the backlash effect. As explained in the previous sections, when a woman violates the female gender role norm, acting in line with the agentic male gender role norm, she receives social repercussions, which manifest as negative interactions with observers of the gender role violation (e.g., Eagly, et al., 2012). Within the context of a written performance evaluation, it is not possible to know if the gender role norm was violated prior to the evaluation. However, based on the previous research (Snyder, 2014; Trix & Psenka, 2003; Williams & Tiedens, 2016), the presence of two components, agentic terms and negative sentiment, together reflect the aspects of interactions that have been classified as the backlash effect. Therefore, when evaluating written feedback for the backlash effect, both the presence of agentic words and the sentiment, defined as the feeling or emotion contained in a statement, were used. Specifically, the backlash effect is operationalized as the presence of agentic terms within a negatively-phrased context for women.

Thus, the evaluation of the qualitative data had sentiment and agentic key words coded. The initial steps in the analysis were conducted at the sentence level, then aggregated to the employee level to create the final agentic keyword count and the backlash effect variable. Therefore, one participant’s comment could range from one to fifteen sentences. To code sentiment, two independent coders participated. I was the first coder. The second coder was a talent management professional with a PhD in Industrial and Organizational psychology. Both coders read each sentence and assigned it a coding of positive, negative or neutral. Operationalization of positive comments included good behaviors, reference to continue to do something well, or referring to a personal characteristic that is good for the company or team. Negative comments were operationalized as a bad or needs-to-be-improved behavior, reference to a future action that indicated a critical failure previously, or an action or personal trait of the
person that leads to negative outcomes. Neutral comments included descriptions of the position, guidance for future improvement that were general and did not indicate a previous failure (e.g., Billy should take the management training course as he transitions to a supervisor position), or statements unrelated to the person. An initial sample of 20 sentences was coded, 19 out of 20 sentences reached agreement, resulting in an agreement of 95%. The researchers then discussed the sentence where disagreement occurred and further clarified the definition of positive, negative and neutral performance comments. The remaining 1748 sentences were individually coded, with 1630 reaching agreement, resulting in an agreement of 93%. The coders then discussed the remaining sentences to reach final consensus on all comments (Bachiochi & Wiener, 2002). Using an excel macro, a key word count variable was created based on an agentic key word list. For consistency with previous research, the list developed by Madera, Hebl and Martin (2009) for their research investigating gender differences in academic reference letters was used. See Table 1 for the full list of key words. Finally, a backlash effect variable was created. The variable was calculated using the number of instances of agentic terms within a negative sentiment statement in the employee’s feedback. For example, an employee that had four negative sentences with one agentic term present in each, two negative sentences with no agentic terms present and three positive sentences with agentic terms present has a backlash effect value of four (i.e. to stay in line with the operationalization of the backlash effect, only the agentic terms within a negative comment are counted toward the backlash effect).

Table 1.  
**Key Agentic Words**

<table>
<thead>
<tr>
<th>Assertive</th>
<th>success</th>
<th>direct*</th>
<th>Noetic</th>
</tr>
</thead>
<tbody>
<tr>
<td>control*</td>
<td>achievement</td>
<td>suggest*</td>
<td>Dynamic</td>
</tr>
<tr>
<td>Confident</td>
<td>force*</td>
<td>organize*</td>
<td>produce*</td>
</tr>
<tr>
<td>aggress*</td>
<td>strength</td>
<td>lead*</td>
<td>persever*</td>
</tr>
<tr>
<td>Ambitious</td>
<td>hardworking</td>
<td>Mastery</td>
<td>Reliable</td>
</tr>
</tbody>
</table>

40
Operationalization of gender dominance of job role. The dataset represents employees in roles with different gender dominance. Therefore, I coded all job roles according the dominant gender of the role. The gender dominance of the job was based on the higher-level area that the job falls within (e.g., a human resource associate was categorized in human resources, an accountant was categorized in finance). Determination of gender dominance was achieved using data from the Bureau of Labor Statistics census for job category (Bureau of Labor Statistics, 2017). This resulted in a continuous variable representing the percentage of male employees in the field. For example, a field that is 85% men was assigned a value of .85. In line with the economic definition of majority, the dominant gender of a field was defined as greater than sixty percent representation by men or women for male or female gender dominance, respectively (Brown & Warren-Boulton, 1988). If a category was close to equal (i.e. neither men nor women represent greater than sixty percent of employees in that field), it was coded as a gender neutral field. Neutral fields were grouped with female dominated fields as it is only the male dominated fields that have been shown to exacerbate the backlash effect (e.g. Eagly et al., 1992). To reinforce, the gender dominance of the role was defined rather than the company (e.g., human resources is female-dominant, engineering is male-dominant, support services is female-dominant, finance is male-dominant, etc.). So even within the sample from two companies, there was diversity of role gender.
Study 1: Results

Summary statistics for the sample can be found in Table 2 and a correlation matrix of all key variables can be found in Table 3. Based on the sampling technique used, there is an even division of men and women, as well as gender-dominance of the job role. The final sample consists of 72.8% white employees and 60.3% individual contributors. We can also see the majority of our sample is from the age 26-35 generation. The average tenure of participants in the sample is 9.6 years.

Table 2
Summary Statistics

<table>
<thead>
<tr>
<th>Variable</th>
<th>Demographic</th>
<th>% of Sample</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ethnicity</td>
<td>American Indian or Alaskan Native</td>
<td>0.5%</td>
</tr>
<tr>
<td></td>
<td>Asian</td>
<td>5.3%</td>
</tr>
<tr>
<td></td>
<td>Black or African American</td>
<td>10.8%</td>
</tr>
<tr>
<td></td>
<td>Hispanic Latino</td>
<td>9.0%</td>
</tr>
<tr>
<td></td>
<td>Native Hawaiian or Other Pacific Islander</td>
<td>0.3%</td>
</tr>
<tr>
<td></td>
<td>Two or More Races</td>
<td>1.5%</td>
</tr>
<tr>
<td></td>
<td>White</td>
<td>72.8%</td>
</tr>
<tr>
<td>Level</td>
<td>Individual Contributor</td>
<td>60.3%</td>
</tr>
<tr>
<td></td>
<td>Leader</td>
<td>39.8%</td>
</tr>
<tr>
<td>Generation</td>
<td>Age 25 and under</td>
<td>9.0%</td>
</tr>
<tr>
<td></td>
<td>Age 26-35</td>
<td>28.5%</td>
</tr>
<tr>
<td></td>
<td>Age 36-45</td>
<td>24.0%</td>
</tr>
<tr>
<td></td>
<td>Age 46-55</td>
<td>22.0%</td>
</tr>
<tr>
<td></td>
<td>Age 56-65</td>
<td>13.3%</td>
</tr>
<tr>
<td></td>
<td>Age 66 and over</td>
<td>3.3%</td>
</tr>
</tbody>
</table>
Table 3

Correlation Matrix

<table>
<thead>
<tr>
<th>Variable</th>
<th>Means</th>
<th>Std. Dev</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Ethnicity</td>
<td>1.73</td>
<td>0.45</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Generation</td>
<td>3.12</td>
<td>1.30</td>
<td>-.01</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Tenure</td>
<td>9.55</td>
<td>8.43</td>
<td>.02</td>
<td>.51*</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Gender</td>
<td>1.50</td>
<td>0.50</td>
<td>.20*</td>
<td>-.07</td>
<td>.17*</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Gender Dominance of Job</td>
<td>0.58</td>
<td>0.25</td>
<td>-.13</td>
<td>-.38*</td>
<td>-.10</td>
<td>-.04</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. Level</td>
<td>1.40</td>
<td>0.49</td>
<td>-.22*</td>
<td>.38*</td>
<td>.38*</td>
<td>.06</td>
<td>-.10</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7. Agentic Keyword Count</td>
<td>2.34</td>
<td>2.29</td>
<td>.01</td>
<td>.11</td>
<td>.07</td>
<td>.01</td>
<td>.03</td>
<td>.21*</td>
<td></td>
<td></td>
</tr>
<tr>
<td>8. Negative Feedback Count</td>
<td>1.81</td>
<td>1.47</td>
<td>-.04</td>
<td>-.04</td>
<td>-.03</td>
<td>-.05</td>
<td>.02</td>
<td>.06</td>
<td>.52*</td>
<td></td>
</tr>
<tr>
<td>9. Backlash Effect</td>
<td>0.52</td>
<td>1.54</td>
<td>-.02</td>
<td>.10</td>
<td>.06</td>
<td>.07</td>
<td>.02</td>
<td>.20*</td>
<td>.82*</td>
<td>.66*</td>
</tr>
</tbody>
</table>

Note: *p<.05, sample size = 400, Caucasian was coded as 2, all other as 1, so a mean closer to 2 for ethnicity indicates a strongly Caucasian sample. Gender was coded as 1 for men and 2 for women. Gender dominance of the job is a continuous variable where a higher value indicates male gender dominance. The backlash effect measure is coded such that a higher value indicates greater frequency of negative agentic feedback.

For each dependent variable (agentic keyword count, negative comment count and the backlash effect variable), a three-step Poisson regression was conducted based on the discrete count characteristic of the dependent variables (Cameron & Trivedi, 1998). Discrete count data does not allow for negative values and tend to cluster in the lower counts, violating the normal distribution assumption of a Gaussian or binomial regression approach, thereby requiring the use of a Poisson regression. To confirm, R software was used to visualize the outcome variables. The dependent variables were visualized as histograms, plotting the count of responses on the y-axis and the dependent variable value on the x-axis. All three variables represented the Poisson distribution curve, with response counts clustering in the lower variable values, then slowly tapering down as the variable value increased. The violation of the normal distribution and visualizations of the dependent variables mapping onto the Poisson distribution confirmed the use of Poisson regressions. There is slight overdispersion, meaning the variance is not exactly
equal to the mean, so an adjustment in the R syntax was used to remove the restriction from the dispersion parameter (Zeileis, Kleiber & Jackman, 2008).

All analyses for this study were conducted in the R software, using the base, rsq, epiDisplay and psych packages. All variables were centered for the analyses. Step one of each model regressed the outcome variable (agentic keyword count, negative comment count and the backlash effect) onto the control variables. Previous research regarding the related experience of incivility in the workplace has shown that employees may experience targeted incivility based on inclusion in multiple demographic groups aside from gender, including ethnicity, age, and tenure (Cortina, 2008). Therefore, these categories were controlled for in all studies to ensure results demonstrate the experience of the backlash effect, not general incivility. As indicated in both meta-analyses of the backlash effect, gender dominance of the job moderates the occurrence of the backlash effect (Williams & Tiedens, 2016), therefore, for hypothesis 2, 3a and 3b, gender dominance of the job was also included as a control variable. Step two regressed the outcome variable onto the controls, predictor and moderator. Finally, step three regressed the outcome variable onto the predictor, moderator, and the hypothesized interaction term, or the cross-product between the predictor and the moderator variable to test the moderation hypotheses. Specific variables for the second and third step will be described in each analysis below. For Poisson regression, there is no sum of squares due to the non-linear nature of the distribution (Cameron & Trivedi, 1998). Therefore, a pseudo R squared statistic is produced, which measures the improvement of the model over one with only a constant based on percentage of explained variation. The second statistic used when comparing Poisson regression is the likelihood ratio statistic (Cameron & Trivedi, 1998). This compares the model to a constrained model, such as the null or a less complex model and allows for a chi-square comparison to assess significance of
adding additional parameters to the model. The statistic is interpreted similarly to the significance of the incremental R squared statistic in hierarchical regression, such that a significant result suggests the new variables provide additional predictability of the dependent variable.

To address the first hypothesis, “gender dominance of the work role moderates the presence of agentic terms in performance feedback such that, within male-dominated roles, the presence of agentic terms is greater in women’s feedback than men’s feedback,” agentic word count was the dependent variable. In step one, control variables were added with none showing significant parameter estimates. In step two, a second model was estimated with the predictor, gender and the moderator, gender dominance of the job. The change in likelihood ratio is not significant for the second model (\( \Delta LR = .60, n.s. \)), suggesting no main effects for the predictor and moderator. In the third step, the interaction term was added to the model. The change in likelihood ratio statistic is significant (\( \Delta LR = 6.00, p = .014 \)), therefore the interaction term adds incremental predictability of the dependent variable. However, the pseudo R squared statistic is low (pseudo-\( R^2 = .04 \)), suggesting the full model is explaining minimal variance in the dependent variable. The significant interaction term (parameter estimate = .68, \( p = .014 \)) indicates further review of the simple slopes using groups at +/- 1 standard deviation of the moderator is warranted (Cohen, Cohen, West, & Aiken 2003). The two simple slopes allow for a test of the two conditions of the moderator, in this case male- and female-dominated jobs. The regression line for each condition of the moderator is compared to a slope of zero as this would indicate that the two levels of the independent variable (in this instance gender of the participant) have equal levels of the dependent variable (in this instance agentic keyword counts). Results of the simple slope analysis reveal entirely non-significant results. The direction of the female-
dominated slope indicates that within female dominated jobs, men have more agentic keywords than women in their performance feedback, however this slope was non-significant (simple slope = -.39), \( t(393) = -1.15, n.s. \) Within male-dominated jobs, which is the moderator condition of interest in hypothesis 1, the slope is positive, indicating that within male-dominated jobs, women have more agentic keywords present in their performance feedback than men. However, the slope was also non-significant (simple slope = .38), \( t(393) = 1.16, n.s \), meaning the difference in the number of agentic keywords in performance feedback between men and women in male-dominated jobs do not differ enough to be statistically significant. Therefore, hypothesis 1 was not upheld. The visualization of the simple slopes, seen in Figure 2, show the results of the simple slope analysis. The full cross of the slopes explains the initial significance of the interaction term. The full results of the analyses can be seen in Table 4.
Table 4
Hierarchical Poisson Regression Analysis for Outcome Measure Agentic Keyword Count

<table>
<thead>
<tr>
<th>Variables</th>
<th>Peudo-R²</th>
<th>∆LR</th>
<th>Parameter Estimates</th>
<th>SE Parameter Estimates</th>
</tr>
</thead>
<tbody>
<tr>
<td>Step 1. Control Variables</td>
<td>0.02</td>
<td>9.24*</td>
<td>-0.02</td>
<td>0.03</td>
</tr>
<tr>
<td>Ethnicity</td>
<td></td>
<td></td>
<td>0.04</td>
<td>0.03</td>
</tr>
<tr>
<td>Generation</td>
<td></td>
<td></td>
<td>0.01</td>
<td>.01</td>
</tr>
<tr>
<td>Tenure</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Step 2. Main Effects</td>
<td>0.02</td>
<td>.60</td>
<td>-.39*</td>
<td>0.17</td>
</tr>
<tr>
<td>Gender</td>
<td></td>
<td></td>
<td>-.96*</td>
<td>0.46</td>
</tr>
<tr>
<td>Gender-dominance of job</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Step 3. Interaction</td>
<td>0.04</td>
<td>6.00*</td>
<td>.68*</td>
<td>0.28</td>
</tr>
<tr>
<td>Gender X Gender-dominance of job</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note: Poisson regression do not produce an R² value. Pseudo R² assesses incremental fit versus the null of the model specified at each step in the analysis. Change in likelihood ratio assesses the significance of adding additional parameters to the model and is similar to ∆R². All parameter estimates represent the final model estimates.

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

Agentic Keyword Count in Performance Feedback of Men and Women within Male-Dominated and Female-Dominate jobs.
Figure 2. Gender dominance of the job as a moderator of the relationship between gender and agentic keyword count in performance appraisal. The dashed line represents the male-dominated field group, which is defined as one standard deviation above the mean for gender dominance of the job. The solid line represents the female-dominated field group, which is defined as one standard deviation below the mean for gender dominance of the job.

To test hypothesis two, “gender moderates the relationship between agentic terms and feedback valence such that the use of agentic terms is more strongly correlated with negatively-phrased feedback for women than it is for men,” the dependent variable used was quantity of negatively phrased feedback measured as number of sentences that reflect negative sentiment within the performance evaluation, including sentences both with and without agentic words present. In step one controls were entered, producing no significant parameter estimates. The change in likelihood ratio was also non-significant. In step two, the predictor, agentic keyword count, and the moderating variable, gender, were added. The change in likelihood ratio was significant ($\Delta LR = 40.4, p < .001$) for the main effect model, as was the parameter estimate for agentic keyword count (parameter estimate = .11, $p < .001$), suggesting agentic keywords in performance appraisals are predictive of negative feedback. In step three, the interaction term was entered, but was not significant (parameter estimate = -.03, n.s.), therefore hypothesis 2 was not upheld. See Table 5 for the full results. Additionally, a three-way interaction model was tested to determine if the agentic keyword count by gender interaction would be significant within male gender dominated jobs. The results were not significant (parameter estimate = -.19, $p = .257$).
To test the third hypothesis, “women in both leadership and individual contributor roles will experience the backlash effect when violation of gender role norm occurs (a), but women in leadership roles receive higher quantities of the backlash effect (b),” the backlash variable created was used as the dependent variable. In the first step, control variables were entered, resulting in a significant likelihood ratio change ($\Delta LR = 26.65, p < .001$), but no significant parameter estimates. In step two, the predictor, gender, and moderating variable, level (leader or individual contributor), were entered. This model had a significant likelihood ratio change ($\Delta LR = 18.80, p < .001$) and explained a moderate amount of variance in the dependent variable (pseudo $R^2 = .12$), permitting the interpretation of the main effect. Significant parameter estimates for main effects of gender (parameter estimate = .37, $p = .011$) and level (parameter
estimate $= .61, p < .001$) were found. Additionally, the control variable of gender dominance of the job was significant (parameter estimate $= 1.12, p < .001$) as would be expected as an established moderator of the backlash effect. The significant main effect for gender in model two supports the presence of backlash effect for women in both leadership and individual contributor roles, providing support for hypothesis 3A. The main effect for level indicates that those employees (both men and women) are more likely to receive negative agentic feedback compared to individual contributors. In step three, the interaction term was added. This model produced a non-significant change in likelihood ratio ($\Delta LR = 1.02, n.s.$) and the interaction term was not significant (parameter estimate $= .27, n.s.$). Therefore hypothesis 3B was not supported, women in leadership roles were not more likely to experience the backlash effect. Together, these results support that all women, not just leaders, experience the backlash effect. See Table 6 for the full results and figure 3 for a visualization of the differences in negative agentic feedback for men and women. Additionally, a three-way interaction model was tested to determine if the negative agentic feedback by gender interaction would be significant within male gender dominated jobs. The results were not significant (parameter estimate $= -3.42, p = .135$).
Table 6

Hierarchical Poisson Regression Analysis for Outcome Measure Backlash Effect

<table>
<thead>
<tr>
<th>Variables</th>
<th>Peudo-R²</th>
<th>∆LR</th>
<th>Parameter Estimates</th>
<th>SE Parameter Estimates</th>
</tr>
</thead>
<tbody>
<tr>
<td>Step 1. Control Variables</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ethnicity</td>
<td>0.07</td>
<td>26.65**</td>
<td>0.14</td>
<td>0.05</td>
</tr>
<tr>
<td>Generation</td>
<td>0.12</td>
<td>18.8**</td>
<td>0.19</td>
<td>0.07</td>
</tr>
<tr>
<td>Tenure</td>
<td>0.00</td>
<td>.01</td>
<td>1.12**</td>
<td>0.3</td>
</tr>
<tr>
<td>Gender-dominance of job</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Step 2. Main Effects</td>
<td>0.12</td>
<td>18.8**</td>
<td>0.12</td>
<td>18.8**</td>
</tr>
<tr>
<td>Gender</td>
<td>.37*</td>
<td>0.14</td>
<td>-0.08</td>
<td>0.47</td>
</tr>
<tr>
<td>level</td>
<td>.61**</td>
<td>0.17</td>
<td>0.14</td>
<td>0.49</td>
</tr>
<tr>
<td>Step 3. Interaction</td>
<td>0.12</td>
<td>1.02</td>
<td>0.29</td>
<td>0.29</td>
</tr>
<tr>
<td>Gender X Level</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note: Poisson regression do not produce an $R^2$ value. Pseudo $R^2$ assesses incremental fit versus the null of the model specified at each step in the analysis. Change in likelihood ratio assesses the significance of adding additional parameters to the model and is similar to $ΔR^2$. All parameter estimates represent the final model estimates.

*p< .05, **p< .01
Study 1: Discussion

Study one aimed to address two of the guiding research questions for this project. First, these analyses tested whether the backlash effect can be empirically demonstrated in the narrative performance feedback context. Second, this research tested whether the empirical support of the backlash effect towards women in leadership roles extends to women in individual contributor roles (i.e., job roles that do not include supervisory responsibilities). Although not all hypotheses were supported, evidence of systematic differences, in line with the operationalization of the backlash effect, between men and women’s performance feedback were
found. The results of this study provide support for both research questions, establishing empirical evidence of the backlash effect in written performance feedback for all women.

Results for hypothesis one, testing whether gender dominance of the work role moderates the presence of agentic terms in performance feedback such that, within male-dominated roles, the presence of agentic terms is greater in women’s feedback than men’s, are non-significant, but do provide some preliminary evidence of differences between men and women’s performance feedback. The non-significant main effect model suggests the main effects of gender and gender dominance of the job do not, individually, explain any additional variance in the agentic term counts in performance feedback over the control variables. However, the model containing the interaction effect does explain a substantial and significant amount of variance in agentic term counts, meaning the addition of these two variables together (gender and gender dominance of the job) explains unique variance in agentic keyword counts in performance feedback. The simple slope analysis reveals only slight differences between men and women in agentic term counts, but the figure shows that the slope is in the anticipated, theoretically supported direction (i.e. the average quantity of agentic terms is greater for women when considering employees in male-dominated roles). Despite non-significant simple slopes, the significant interaction can be explained by the opposite direction of the slopes (positive for male-dominated roles and negative for female dominated roles, with positive indicating greater agentic term count for women). Also of note when considering the interaction, despite sufficient power for detecting small main effects, there is a drop in power below what would be necessary to detect a small effect size when conducting the simple slopes analysis. These results suggest that agentic terms in performance feedback may warrant further exploration within male-dominated job categories, accounting for the additional power required for the simple slopes analysis.
Despite lack of support for hypothesis two (testing whether gender moderates the relationship between agentic terms and feedback valence such that the use of agentic terms is more strongly correlated with negatively-phrased feedback for women than it is for men), a significant main effect for agentic terms was found along with a very large and significant change in likelihood ratio. This suggests that presence of agentic terms relates to greater quantities of negative feedback overall. Interestingly, this is for both men and women, not just women as Social Role theory would suggest (Eagly & Wood, 2012). Additional analyses are required to further understand this finding. The lack of support for both hypothesis one and hypothesis two lay the groundwork for greater support of hypothesis three, the most pertinent hypothesis to the research objectives of this study. Lack of support for the first two hypotheses shows it is not solely agentic terms that are greater for women, nor is it negative feedback, but rather the two in conjunction that reveal a systematic difference and support for the first research question of whether the backlash effect can be empirically demonstrated in written performance appraisal feedback.

The combination of the dependent variables of the first two hypotheses allow for the calculation and evaluation of the backlash effect. The results of hypothesis 3A (women in both leadership and individual contributor roles will experience the backlash effect when violation of gender role norms occurs), show a significant main effect for gender when considering negative agentic feedback, providing evidence of the backlash effect in written performance appraisals. Additionally, in the main effect model, gender-dominance of the job and level are significant. The positive parameter estimates for these variables suggest that it is within male-dominated jobs that negative agentic feedback is more common, as anticipated from previous research (e.g., Williams & Tiedens, 2016), and that negative agentic feedback is more common for all leaders. I
use the term negative agentic feedback, rather than the backlash effect, to describe these main
effects intentionally to indicate the difference between the value derived based on the
operationalization of the backlash effect (agentic terms within negative feedback) and the
theoretically defined experience of the backlash effect which occurs only for women (Rudman,
1998).

The interaction model, which tests hypothesis 3B (women in leadership roles are more
likely to experience the backlash effect), helps provide clarity around the main effect of level. As
the interaction of level and gender is not significant, it is the inclusion of both men and women’s
feedback that show a main effect of level. Even though all performance feedback contains more
negative agentic feedback for leaders, it is the women’s experience that is pertinent to the
backlash effect and this research (Rudman, 1998). Further research is necessary to understand
whether there are differences in the details of the negative agentic feedback for men and women
in leadership positions. Previous research would suggest that the negative agentic feedback for
men would be encouragement to be more agentic, whereas women would be instructed to be less
agentic and more communal (Snyder, 2014). The results of the interaction model do not provide
evidence for hypothesis 3B, meaning women in leadership roles are not more likely to receive
the backlash effect than women in individual contributor roles (i.e. women without supervisory
responsibility). This provides strong evidence for the second research question, extending
empirical support for the backlash effect to women in individual contributor roles. This finding
demonstrates the backlash effect can occur for women outside of leadership roles and occurs at
similar rates for women of all levels, with various responsibilities (e.g., finance, marketing, and
engineering).
Limitations and future research. Despite support for the research questions, this research is not without limitations. The current research, although expanding the criterion of interest from previous research from solely quantitative to a qualitative outcome, still does not address the employee’s experience when the backlash effect occurs. This is a broader limitation of the research on the backlash effect to date (e.g., Eagly, et al., 1992; Rudman, et al., 2012; Williams & Tiedens, 2016). A second important limitation is in the research design. By evaluating existing organizational performance reviews, this research was unable to evaluate whether a violation of the gender role norm occurred prior to receiving a performance review containing the backlash effect. A final limitation to note is the focus of this research on the formal feedback realm. By utilizing formal performance reviews, this research does not assess the informal performance feedback, which arguably comprises a larger portion of the feedback an employee receives in the workplace (e.g., Den Hartog, Boselie, & Paauwe, 2004).

Study two builds upon the findings of study one, by addressing two of the three major limitations of the current research. First, the second study aims to develop a method to assess whether an employee has experienced the backlash effect in the workplace, and utilize the new measure to explore the relationship of the backlash effect with individual employee outcomes. This aims to address both the limitation of the current research, which fails to capture the employee’s reaction to the feedback, as well as the broader body of research, which focuses on organizational outcomes such as hireability, promotions and salary increases (e.g., Heilman, et al, 2004; Roth, Purvis & Bobko, 2012; Rudman, 1998; Williams & Tiedens, 2016). Additionally, the development of a measure of the backlash effect will allow for assessment of both the formal and informal performance feedback contexts, broadening the understanding of the employee experience with this phenomenon.
Chapter 4

Study 2: Methodology, Results and Discussion
To address the third research question (does the backlash effect negatively impact individual level employee outcomes of PSS, AC, turnover intentions?), a main study and a pilot study were required. In the pilot, preliminary validity evidence for a new measure of negative agentic feedback was collected using a student sample. The second study, using a sample of working adults, investigated the relationships between the new negative agentic feedback measure developed in the pilot and well established measures of PSS, AC and turnover intentions to address the third research question.

**Study 2 Pilot: Methodology of the Backlash Measure Development**

The aim of the pilot was to develop a self-report measure of negative agentic feedback to assess occurrence of the backlash effect and to collect construct validity evidence for this measure. Development of the negative agentic feedback measure followed best practices in scale development (DeVellis, 2016). This involved item generation, item review, item selection through analysis of scale dimensionality and validation of the measure.

**Item generation.** The backlash effect is defined as social and economic repercussions received by women in the workplace due to violation of the female gender role norm (Rudman, 1998). Based on the operationalization of the backlash effect in study one, the occurrence of the backlash effect was identified as the presence of agentic-aligned terms with negatively associated sentiment, here forward referred to as negative agentic feedback. Key term generation to identify the occurrence of negative agentic feedback was conducted using the previous research on the backlash effect and the keyword list developed by Madera, Hebl and Martin (2009). Using an inductive approach, the frequency of use for each agentic and communal term was evaluated in the study one data. A cut off of ten mentions was used as the inclusion criterion. Those terms
from each category with at least ten mentions were included in the final list of terms for this measure. The top nineteen and eighteen most often mentioned terms from each list were included in the final measure. Fewer communal words were found to be used in performance evaluations, therefore only eighteen met the criterion for inclusion. The full list of terms can be found in the measures section. To maintain clarity between the operationalized measure being developed and the theoretically supported construct of the backlash effect, the newly developed measure will be referred to as the negative agentic feedback measure.

**Participants and procedures.** Recruitment occurred using the University at Albany research pool. Participants received class credit in return for participation. Completion of the study was not required for receipt of reward. To qualify for participation in this study, the students had to be working at least ten hours per week outside of school. Ethical standards were upheld based on recommendations from the Institutional Review Board and APA recommendations. Participants completed the survey online. They received a link to their email account that directed them to the online survey through google surveys. The link was completely anonymous.

Once connected to the online survey, participants were provided with information about the study and what was expected of them for participation. They electronically signed an informed consent form before beginning the survey. Participants were asked to respond to the newly developed measure of negative agentic feedback and established measures of incivility, interpersonal justice, distributive justice, procedural justice and informational justice, which were used to collect convergent and discriminant validity evidence. Additionally, a series of items regarding demographic variables were asked. Total time for participation was approximately fifteen minutes.
A sample of 214 participants were recruited based on the anticipation of strong item correlations (DeVellis, 2016). Included in the survey were three questions to test for attention. After removing participants that did not correctly answer these three questions, the final sample was 154. The sample composition was 71% female, 62% Caucasian, 85% individual contributors, an average age of 20.1 years and an average tenure of 3.4 years.

Measures.

*Negative agentic feedback.* The measure was developed to assess the occurrence of the backlash effect for women. The list of terms, found in table 7, was presented to the participant along with the following prompt: “Please read the entire list of words below and indicate if your supervisor is likely to use that word when CRITIQUING your work or providing NEGATIVE feedback. For words likely to be used, please indicate the frequency of use.” The participants were then presented the same list of words with the following prompt: “Please read the entire list of words below and indicate if your supervisor is likely to use that word when COMPLIMENTING your work or providing POSITIVE feedback. For words likely to be used, please indicate the frequency of use.” A six point scale was used with the headings “1. Infrequently, 2. Sometimes, 3. Regularly, 4. Frequently, 5. Very Frequently, and 0. Does not use.” The final score for negative agentic feedback is a count of agentic terms within the negative feedback condition, amplified by the frequency of use. For example, if a participant has three agentic terms indicated for negative feedback, one with a rating of sometimes (2) and two with a rating of regularly (3) would have a negative agentic feedback score of eight (2 + 3 + 3). However, if someone has 3 agentic terms identified, one with a rating of regularly (3), and two with ratings of very frequently (5), the negative agentic feedback measure score would be 13 (3 + 5 + 5). Cronbach’s alpha for the measure was $\alpha = .91$. 
Table 7  
**Key Word List for the Negative Agentic Feedback Measure.**

<table>
<thead>
<tr>
<th>Accepting (C)</th>
<th>Confident (A)</th>
<th>Gentle (C)</th>
<th>Reliable (A)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Active (A)</td>
<td>Considerate (C)</td>
<td>Helpful (C)</td>
<td>Responsive (C)</td>
</tr>
<tr>
<td>Aggressive (A)</td>
<td>Controlling (A)</td>
<td>Independent (A)</td>
<td>Sensitive (C)</td>
</tr>
<tr>
<td>Agreeable (C)</td>
<td>Cooperative (C)</td>
<td>Influential (A)</td>
<td>Submissive (C)</td>
</tr>
<tr>
<td>Ambitious (A)</td>
<td>Daring (A)</td>
<td>Kind (C)</td>
<td>Supportive (C)</td>
</tr>
<tr>
<td>Assertive (A)</td>
<td>Direct (A)</td>
<td>Lead (A)</td>
<td>Tentative (C)</td>
</tr>
<tr>
<td>Careful (C)</td>
<td>Dominant (A)</td>
<td>Mastery (A)</td>
<td>Worry (C)</td>
</tr>
<tr>
<td>Caring (C)</td>
<td>Dynamic (A)</td>
<td>Nurturing (C)</td>
<td></td>
</tr>
<tr>
<td>Communal (C)</td>
<td>Emotional (C)</td>
<td>Organized (A)</td>
<td></td>
</tr>
<tr>
<td>Competent (A)</td>
<td>Forceful (A)</td>
<td>Powerful (A)</td>
<td></td>
</tr>
</tbody>
</table>

**Incivility.** Incivility was measured using the Incivility scale (Cortina, Magley, Williams, & Langhout, 2001). The six item incivility scale was developed to assess the experience of subtle rudeness in the workplace based on demographic differences. The prompt for this measure was “During the PAST FIVE YEARS while employed at your current organization, have you been in a situation where any of your superiors or coworkers:” and a sample item was “Put you down or were condescending to you?” All responses were recorded on a 4-point likert scale from 1 (never) to 4 (most of the time). Cronbach’s alpha for the measure was $\alpha = .85$.

**Interpersonal justice.** Interpersonal justice was measured using a recent scale developed to investigate the full justice continuum (Colquitt, Long, Rodell, & Halvorsen-Ganepola, 2015). The 8-item measure included both justice and injustice items. The framing on the items was “The questions below refer to the interactions you have with your current supervisor as decision-making procedures (about pay, rewards, evaluations, promotions and so forth) are implemented. To what extent:” Sample items were “Does he/she treat you in a polite manner” and “Does he/she treat you with disregard?” (R). All responses were recorded on a 7-point likert scale from
1 (to an extremely small extent) to 7 (to an extremely large extent). Cronbach’s alpha for the measure was $\alpha = .86$.

**Distributive justice.** Distributive justice was measured using a recent scale developed to investigate the full justice continuum (Colquitt, Long, Rodell, & Halvorsen-Ganepola, 2015). The 8-item measure included both justice and injustice items. The framing on the items is “The questions below refer to the outcomes you receive you’re your supervisor, such as pay, rewards, evaluations, promotions and so forth. To what extent:” Sample items were “Are those outcomes appropriate for the work you have completed?” and “Are those outcomes inconsistent with the effort you have put into your work?” (R). All responses were recorded on a 7-point likert scale from 1 (to an extremely small extent) to 7 (to an extremely large extent). Cronbach’s alpha for the measure was $\alpha = .90$.

**Procedural justice.** Procedural justice was measured using a recent scale developed to investigate the full justice continuum (Colquitt, Long, Rodell, & Halvorsen-Ganepola, 2015). The 14-item measure included both justice and injustice items. The framing on the items is “The questions below refer to the procedures your supervisor uses to make decisions about pay, rewards, evaluations, promotions and so forth. To what extent:” Sample items were “Are those procedures applied consistently?” and “Do your views go unheard during those procedures?” (R). All responses were recorded on a 7-point likert scale from 1 (to an extremely small extent) to 7 (to an extremely large extent). Cronbach’s alpha for the measure was $\alpha = .82$.

**Artistic cultural appreciation and curiosity.** Artistic cultural appreciation and curiosity is included to establish discriminant validity due to a lack of theoretical relationship with the backlash effect. A woman would not be required to violate the female gender role norm to be high in this construct. The bio-data construct of artistic cultural appreciation and curiosity was
measured using one dimension of a scale developed to measure twelve dimensions of bio-data information (Oswald, et al., 2004). The ten item measure included questions about a person’s recent experiences with art. For example, “Over the past year how many art exhibitions have you attended?” with response options of “zero, one, two, three or four, five or more.” An additional example is “In the last year, how many times did you go to a play, musical, or other live theater performance?” with the response options of “never, once, twice, 3 to 5 times, more than 5 times.” Each item in the measure has a unique set of five response choices that aligned with the question, therefore there is not a single response scale to be reported. However, all response choices used 1 as the least agreement and 5 as the most agreement with the question, with a higher average score indicated greater agreement with the construct. Cronbach alpha for the measure was $\alpha = .79$.

**Multicultural tolerance and appreciation.** Multicultural tolerance and appreciation was included as a means of establishing discriminant validity due to a lack of theoretical relationship with the backlash effect, as a woman would not need to violate the female gender role norm to be high in multicultural tolerance and appreciation. The bio-data construct of multicultural tolerance was measured using one dimension of a scale developed to measure twelve dimensions of bio-data information (Oswald, et al., 2004). The ten item measure included questions about a person’s recent experiences with seeking out multicultural experiences. For example, “How much have you tried to understand people of different cultural beliefs?” with response options of “I have never tried, I don’t try very often, Sometimes I try, I often try, I have tried very hard.” Each item in the measure has a unique set of five response choices that aligned with the question, therefore there is not a single response scale to be reported. However, all response choices used 1 as the least agreement and 5 as the most agreement with the question, with a higher average
score indicated greater agreement with the construct. Cronbach alpha for the measure was $\alpha = .81$.

**Demographic variables.** Demographic variables requested included gender (male, female, other), ethnicity (Asian, American Indian or Alaskan Native, Black or African American, Hispanic/Latino, Native Hawaiian or Pacific Islander, Two or more races, White), age (in years), position tenure (in years), position level (individual contributor, manager, director, VP and above), “Would you estimate there are more male or female employees in your company?” (Male, Female), career field (list populated from the results of the census review in study one), “Is your supervisor male or female?” “Do you have supervisory responsibilities in your job role?”

**Study 2 Pilot: Results**

**Convergent and discriminant validity analysis.** To collect convergent and discriminant validity evidence, measures of established scales that are both theoretically related (convergent) and unrelated (discriminant) to the backlash effect were included. The correlations between the measures were anticipated to be moderate to strong for related measures, and low for unrelated constructs (Campbell & Fiske, 1959). The correlation matrix for the full sample can be found in Table 8 and correlations for just women in Table 9. Coefficient alpha for each measure can be found along the diagonal. The theoretical construct of the backlash effect is only supported for female employees (Heilman & Chen, 2005). Therefore, the sample was split and all relationships were then evaluated for the women in the sample only. This latter correlational relationship evaluates the measure for the true theoretical construct of the backlash effect, and the comparison of the two correlational relationships (full sample vs. women) allows for exploration of whether the measure is evaluating the backlash effect rather than general negative feedback.
Table 8  
Correlation Matrix for Full Pilot Sample

<table>
<thead>
<tr>
<th>Variable</th>
<th>Mean</th>
<th>SD</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>10</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Negative Agentic Feedback</td>
<td>36.76</td>
<td>22.77</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>0.91</td>
</tr>
<tr>
<td>2. Incivility</td>
<td>1.68</td>
<td>0.56</td>
<td>0.09</td>
<td>0.85</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Procedural Justice</td>
<td>4.79</td>
<td>0.93</td>
<td>-0.06</td>
<td>-0.18*</td>
<td>0.82</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Interpersonal Justice</td>
<td>5.90</td>
<td>0.93</td>
<td>-0.29*</td>
<td>-0.24*</td>
<td>0.57*</td>
<td>0.86</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Distributive Justice</td>
<td>4.80</td>
<td>1.39</td>
<td>0.02</td>
<td>-0.24*</td>
<td>0.68*</td>
<td>0.46*</td>
<td>0.90</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. Multicultural</td>
<td>3.00</td>
<td>0.62</td>
<td>-0.05</td>
<td>0.24*</td>
<td>0.10</td>
<td>0.04</td>
<td>-0.01</td>
<td>0.81</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7. Artistic</td>
<td>2.66</td>
<td>0.69</td>
<td>-0.13</td>
<td>0.37*</td>
<td>0.09</td>
<td>0.10</td>
<td>-0.04</td>
<td>0.64*</td>
<td>0.79</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8. Gender</td>
<td>1.70</td>
<td>0.46</td>
<td>-0.24*</td>
<td>0.06</td>
<td>0.11</td>
<td>0.15</td>
<td>0.05</td>
<td>0.05</td>
<td>0.08</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9. Ethnicity</td>
<td>1.62</td>
<td>0.49</td>
<td>-0.12</td>
<td>0.00</td>
<td>0.17*</td>
<td>0.24*</td>
<td>0.13</td>
<td>-0.26*</td>
<td>-0.10</td>
<td>0.24*</td>
<td></td>
<td></td>
</tr>
<tr>
<td>10. Level</td>
<td>1.19</td>
<td>0.48</td>
<td>-0.06</td>
<td>0.23*</td>
<td>-0.04</td>
<td>0.11</td>
<td>-0.13</td>
<td>0.24*</td>
<td>0.29*</td>
<td>0.04</td>
<td>0.06</td>
<td></td>
</tr>
<tr>
<td>11. Job Gender Dominance</td>
<td>0.44</td>
<td>0.18</td>
<td>0.01</td>
<td>0.02</td>
<td>0.02</td>
<td>-0.03</td>
<td>0.01</td>
<td>0.14</td>
<td>0.09</td>
<td>-0.15</td>
<td>-0.01</td>
<td>0.12</td>
</tr>
</tbody>
</table>

Note: *p<.05, sample size =154, Caucasian was coded as 2, all other as 1, so a mean closer to 2 for ethnicity indicates a strongly Caucasian sample. Gender was coded as 1 for men and 2 for women. Gender dominance of the job is a continuous variable where a higher value indicates more gender dominance. Negative Agentic Feedback measure is coded such that a higher value indicates greater frequency of negative agentic feedback.
Table 9
Correlation Matrix for Female Pilot Sample

<table>
<thead>
<tr>
<th>Variable</th>
<th>Mean</th>
<th>SD</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Negative Agentic Feedback</td>
<td>6.24</td>
<td>5.80</td>
<td>0.85</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Incivility</td>
<td>1.70</td>
<td>0.59</td>
<td>0.09</td>
<td>0.85</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Procedural Justice</td>
<td>4.80</td>
<td>0.96</td>
<td>-0.04</td>
<td>-0.25*</td>
<td>0.82</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Interpersonal Justice</td>
<td>6.00</td>
<td>0.93</td>
<td>-0.24*</td>
<td>-0.20*</td>
<td>0.64*</td>
<td>0.86</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Distributive Justice</td>
<td>4.84</td>
<td>1.44</td>
<td>0.05</td>
<td>-0.20*</td>
<td>0.69*</td>
<td>0.47*</td>
<td>0.9</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. Multicultural</td>
<td>3.02</td>
<td>0.65</td>
<td>-0.01</td>
<td>0.24*</td>
<td>0.15</td>
<td>0.13</td>
<td>0.06</td>
<td>0.81</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7. Artistic</td>
<td>2.69</td>
<td>0.69</td>
<td>-0.14</td>
<td>0.35*</td>
<td>0.16</td>
<td>0.20*</td>
<td>0.04</td>
<td>0.61*</td>
<td>0.79</td>
<td></td>
</tr>
<tr>
<td>8. Ethnicity</td>
<td>1.66</td>
<td>0.47</td>
<td>-0.05</td>
<td>0.10</td>
<td>0.04</td>
<td>0.18</td>
<td>0.09</td>
<td>-0.25*</td>
<td>0.04</td>
<td></td>
</tr>
<tr>
<td>9. Level</td>
<td>1.20</td>
<td>0.52</td>
<td>-0.11</td>
<td>0.24*</td>
<td>-0.06</td>
<td>0.10</td>
<td>-0.14</td>
<td>0.27*</td>
<td>0.28*</td>
<td>0.07</td>
</tr>
<tr>
<td>10. Job Gender Dominance</td>
<td>0.43</td>
<td>0.18</td>
<td>-0.10</td>
<td>-0.01</td>
<td>0.03</td>
<td>0.02</td>
<td>0.20</td>
<td>0.18</td>
<td>-0.04</td>
<td>0.16</td>
</tr>
</tbody>
</table>

Note: *p<.05, sample size =109, Caucasian was coded as 2, all other as 1, so a mean closer to 2 for ethnicity indicates a strongly Caucasian sample. Gender dominance of the job is a continuous variable where a higher value indicates male gender dominance. Negative Agentic Feedback measure is coded such that a higher value indicates greater frequency of negative agentic feedback.
For convergent validity, measures of incivility, interpersonal justice, distributive justice, and procedural justice were included. As explored in the literature review, workplace incivility is a negative experience in the workplace, sharing some characteristics of the backlash effect. The primary similarity is the negative interpersonal workplace experience, potentially occurring with one’s supervisor. Therefore, it was expected that there would be a moderate relationship between the backlash effect and workplace incivility. Based on the correlation analysis, validity evidence was not found as the relationship between negative agentic feedback and workplace incivility was both small and non-significant for women ($r = .09, n.s.$). Building on the interpersonal nature of the backlash effect, it was anticipated the backlash effect would be negatively related to the experience of interpersonal justice, which refers to perceived fairness in interactions, including respectfulness and adherence to unspoken social contracts between two individuals (Colquitt, et al., 2013). The moderate negative relationship between the negative agentic feedback measure and interpersonal justice for women provides validity evidence for the backlash effect ($r = -.24, p < .001$).

Although not as strongly related as interpersonal justice, both procedural justice (the perceived fairness of decision making processes, including unbiased nature, consistency and accuracy) and distributive justice (the perceived fairness and equitability of decision outcomes; Colquitt, et al., 2013) were anticipated to be moderately related to the backlash effect due to the element of an economically-related decision made by supervisors in the workplace. Neither of these relationships were supported. Procedural justice ($r = -.06, n.s.$) and distributive justice ($r = .02, n.s.$) both show negligible and non-significant relationships with the negative agentic feedback measure for all participants and in the female sample as well ($r = -.06, n.s.$ and $r = -.06, n.s.$, respectively). With the negative agentic feedback measure exhibiting a theoretically
supported relationship of the backlash effect (i.e. relationships with established measures for women) with only one established measure, there is weak convergent validity evidence for the new measure to assess the experience with the backlash effect. Additional convergent validity evidence was collected in the second study. Those results will be discussed in the next section.

To establish discriminant validity, two of Oswald et al.’s (2004) twelve dimensions of their bio-data measure, which aim to evaluate a person’s background and experience, was used. A vast majority of the bio-data dimensions were anticipated to relate to the backlash effect (e.g., leadership, career orientation, and perseverance). However, the measures of artistic cultural appreciation and curiosity (Artistic), and multicultural tolerance and appreciation (Multicultural) were anticipated to have a minimal relationship with the backlash effect. These bio-data constructs relate to aspects of an employee’s personality that do not require the violation of the female gender role norm to be rated high, whereas a female employee high in leadership or career orientation will inherently be violating the female gender role norm. Therefore, a minimal to non-existent relationship between the negative agentic feedback measure and measures of both artistic and multicultural were anticipated for women, providing preliminary discriminant validity evidence. In the full sample, a small, non-significant relationship was found with both the artistic \( r = -.13, n.s. \) and multicultural \( r = -.05, n.s. \) measures as was expected. For women only, these relationships were similar for both the artistic \( r = -.14, n.s. \) and multicultural measures \( r = -.01, n.s. \). However, although non-significant, the relationship with the artistic measure is still larger than expected in both instances, and not different for the female-only sample, raising concern of discriminant validity for the use of the negative agentic feedback measure as a means of evaluating the backlash effect.

**Study 2 Pilot: Post Hoc Analysis**
Preliminary validity evidence was generally not found for the originally proposed calculation of the negative agentic feedback measure. In addition to the weak relationships with the theoretically supported measures, there was a strong relationship found between the negative agentic feedback measure and gender of the participants in the opposite direction that would be expected ($r = -.24$, $p < .001$). The negative direction of the relationship indicates that men expressed higher frequency of negative agentic feedback overall compared to women. Additionally, evaluation of the agentic negative feedback measure for only women does not show any meaningful differences, suggesting the underlying construct of the backlash effect is not being measured. Given the weak support for the measure as initially proposed, and the issues with men’s scores, post hoc analyses were conducted.

The first post-hoc analysis was an exploratory factor analysis on the negative agentic feedback measure to determine if there were terms that held together as factors within the larger set of terms. Evaluation of the factors by parallel analysis compares the eigenvalues of the exploratory factor analysis against percentile eigenvalue generated by the distribution alone to determine if the resulting eigenvalue is higher than chance. Factors with an eigenvalue greater than the percentile eigenvalue revealed seven potential factors, indicating a shortened list of terms from Madera, Hebl and Martin’s (2009) original list of agentic terms may better represent the backlash effect (Surendra, Mishra & Donovan, 2008). The first two factors had the highest eigenvalues and greatest proportional variances, and therefore loadings of individual items on these two factors were considered. The first factor revealed communal terms loading above the .5 level. Of interest to this research, the second factor (eigenvalue = 5.49, proportional variance = .15) revealed five terms with factor loadings above .5, a suggested minimum for a strong factor loading (Nunnally & Bernstein, 1994). The range of factor loadings was from .1 to .8, with most
terms loading below .3. The five terms (aggressive, forceful, controlling, dominant and assertive) were supported by previous research as being strongly related to the backlash effect (Snyder, 2014; Williams & Tiedens, 2016). With strong theoretical support for these terms, and statistical support from the factor analysis, a new negative agentic feedback measure, comprised of just the five agentic terms, rather than the full list of agentic terms, was calculated. The scores were still calculated with the frequency acting as a multiplier for the term (e.g., if someone has 3 agentic terms identified, one with a rating of regularly (3), and two with ratings of very frequently (5), the backlash measure score would be $3 + 5 + 5 = 13$). Cronbach’s alpha for the new scale was still strong at $\alpha = .85$.

The same relationships tested in the initial analysis were retested. All relationships of interest (incivility, interpersonal justice, procedural justice and distributive justice) increased. Incivility ($r = .16, p = .049$) and interpersonal justice ($r = -.38, p < .001$) have moderate, significant relationships in the hypothesized directions, and the relationship with procedural justice strengthened and became significant ($r = -.18, p = .021$). Additionally, the relationships testing discriminant validity remained insignificant and the magnitude of the relationship with the artistic measure decreased, strengthening evidence for discriminant validity. Together, these improved relationships provide support for the new measure of negative agentic feedback with the reduced number of agentic terms. Full correlation matrix can be found in table 10. Despite improved relationships with hypothesized variables, the issue of gender was still present ($r = -.26, p < .001$). In order to better understand what is happening in this relationship, the scale of the measure was modified for the main study to include directionality of the term in the feedback. The directionality tells whether the respondent has been told to engage in more or less of the behavior when receiving negative feedback. For example, if a man and woman identify
aggressive in negative feedback, but the man was told to be "more aggressive" whereas the woman was told to be "less aggressive," the meaning of the feedback would be very different. As the measure originally existed, only whether the word had been used and the tone (positive or negative) of the feedback was interpretable. Therefore, each term in the negative feedback list was broken into two items, one with “more” before the term and one with “less” before the term (e.g., the original term aggressive became two lines, “more aggressive” and “less” aggressive). The expanded list allowed for deeper exploration of the employee experience. It is also important to note that there is a negative relationship between negative agentic feedback and ethnicity, indicating that employees who are not Caucasian report greater frequency of negative agentic feedback ($r = -.22, p = .013$). While outside the purview of the current research to investigate this relationship further, ethnicity was controlled for in all statistical testing.
Table 10

Correlation Matrix for the Newly Reduced Negative Agentic Feedback Measure

<table>
<thead>
<tr>
<th>Variable</th>
<th>Mean</th>
<th>SD</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>10</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Negative Agentic Feedback</td>
<td>7.31</td>
<td>6.35</td>
<td>0.85</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Incivility</td>
<td>1.68</td>
<td>0.56</td>
<td>0.16*</td>
<td>0.85</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Procedural Justice</td>
<td>4.79</td>
<td>0.93</td>
<td>-0.18*</td>
<td>-0.18*</td>
<td>0.82</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Interpersonal Justice</td>
<td>5.90</td>
<td>0.93</td>
<td>-0.38*</td>
<td>-0.24*</td>
<td>0.57*</td>
<td>0.86</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Distributive Justice</td>
<td>4.80</td>
<td>1.39</td>
<td>-0.13</td>
<td>-0.24*</td>
<td>0.68*</td>
<td>0.46*</td>
<td>0.90</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. Multicultural</td>
<td>3.00</td>
<td>0.62</td>
<td>-0.02</td>
<td>0.24*</td>
<td>0.10</td>
<td>0.04</td>
<td>-0.01</td>
<td>0.81</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7. Artistic</td>
<td>2.66</td>
<td>0.69</td>
<td>-0.05</td>
<td>0.37*</td>
<td>0.09</td>
<td>0.10</td>
<td>-0.04</td>
<td>0.64*</td>
<td>0.79</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8. Gender</td>
<td>1.70</td>
<td>0.46</td>
<td>-0.26*</td>
<td>0.06</td>
<td>0.11</td>
<td>0.15</td>
<td>0.05</td>
<td>0.05</td>
<td>0.08</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9. Ethnicity</td>
<td>1.62</td>
<td>0.49</td>
<td>-0.22*</td>
<td>0.00</td>
<td>0.17*</td>
<td>0.24*</td>
<td>0.13</td>
<td>-0.26*</td>
<td>-0.10</td>
<td>0.24*</td>
<td></td>
<td></td>
</tr>
<tr>
<td>10. Level</td>
<td>1.19</td>
<td>0.48</td>
<td>-0.04</td>
<td>0.23*</td>
<td>-0.04</td>
<td>0.11</td>
<td>-0.13</td>
<td>0.24*</td>
<td>0.29*</td>
<td>0.04</td>
<td>0.06</td>
<td></td>
</tr>
<tr>
<td>11. Job Gender Dominance</td>
<td>0.44</td>
<td>0.18</td>
<td>0.09</td>
<td>0.02</td>
<td>0.02</td>
<td>-0.03</td>
<td>0.01</td>
<td>0.14</td>
<td>0.09</td>
<td>-0.15</td>
<td>-0.01</td>
<td>0.12</td>
</tr>
</tbody>
</table>

Note: *p<.05, sample size =154, Caucasian was coded as 2, all other as 1, so a mean closer to 2 for ethnicity indicates a strongly Caucasian sample. Gender was coded as 1 for men and 2 for women. Gender dominance of the job is a continuous variable where a higher value indicates male gender dominance. Negative Agentic Feedback measure is coded such that a higher value indicates greater frequency of negative agentic feedback.
To stay in line with the theoretical definition of the backlash effect occurring only for women (Heilman & Chen, 2005), the sample was split to ensure relationships between the new negative agentic feedback measure and all established measures of interest held for just women. As can be seen in the correlation matrix in Table 11, all relationships of interest with the backlash effect measure were upheld in the sample of just women except incivility, which maintained the magnitude of the relationship, but due to a decrease in power dropped just below the level of significance ($r = .17, p = .089$). Based on the post-hoc analysis, modifications to the calculation of the negative agentic feedback measure were made for the main analysis. Full explanation of the additional analyses conducted on the main sample to further support this decision will be discussed in the next section.
### Table 11

**Correlation Matrix for Only Women Using the Newly Reduced Negative Agentic Feedback Measure**

<table>
<thead>
<tr>
<th>Variable</th>
<th>Mean</th>
<th>SD</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Negative Agentic Feedback</td>
<td>6.24</td>
<td>5.80</td>
<td>0.85</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Incivility</td>
<td>1.70</td>
<td>0.59</td>
<td>0.17</td>
<td>0.85</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Procedural Justice</td>
<td>4.80</td>
<td>0.96</td>
<td>-0.20*</td>
<td>0.25*</td>
<td>0.82</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Interpersonal Justice</td>
<td>6.00</td>
<td>0.93</td>
<td>-0.34*</td>
<td>-0.20*</td>
<td>0.64*</td>
<td>0.86</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Distributive Justice</td>
<td>4.84</td>
<td>1.44</td>
<td>-0.10</td>
<td>-0.20*</td>
<td>0.69*</td>
<td>0.47*</td>
<td>0.90</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. Multicultural</td>
<td>3.02</td>
<td>0.65</td>
<td>-0.02</td>
<td>0.24*</td>
<td>0.15</td>
<td>0.13</td>
<td>0.06</td>
<td>0.81</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7. Artistic</td>
<td>2.69</td>
<td>0.69</td>
<td>-0.12</td>
<td>0.35*</td>
<td>0.16</td>
<td>0.20*</td>
<td>0.04</td>
<td>0.61*</td>
<td>0.79</td>
<td></td>
<td></td>
</tr>
<tr>
<td>8. Ethnicity</td>
<td>5.84</td>
<td>1.91</td>
<td>-0.12</td>
<td>0.10</td>
<td>0.04</td>
<td>0.18</td>
<td>0.09</td>
<td>-0.25*</td>
<td>0.04</td>
<td></td>
<td></td>
</tr>
<tr>
<td>9. Level</td>
<td>1.20</td>
<td>0.52</td>
<td>-0.09</td>
<td>0.24*</td>
<td>-0.06</td>
<td>0.10</td>
<td>-0.14</td>
<td>0.27*</td>
<td>0.28*</td>
<td>0.07</td>
<td></td>
</tr>
<tr>
<td>10. Job Gender Dominance</td>
<td>0.43</td>
<td>0.18</td>
<td>-0.10</td>
<td>-0.01</td>
<td>0.03</td>
<td>0.03</td>
<td>0.02</td>
<td>0.20</td>
<td>0.18</td>
<td>-0.04</td>
<td>0.16</td>
</tr>
</tbody>
</table>

Note: *p<.05, sample size =109, Caucasian was coded as 2, all other as 1, so a mean closer to 2 for ethnicity indicates a strongly Caucasian sample. Gender dominance of the job is a continuous variable where a higher value indicates male gender dominance. Negative Agentic Feedback measure is coded such that a higher value indicates greater frequency of negative agentic feedback.
Study 2: Methodology

Participants and procedures. Recruitment occurred on Amazon Mechanical Turk. Requirements for participation included at least 1 year of work experience and one year with current company. Participants received a small monetary reward of fifty cents in return for participation. Completion of the study was not required for receipt of reward. Based on the results of a power analysis for a multiple regression with interaction effects, expecting a small effect size of .15, a random sample of 300 participants was collected. After removing participants that did not pass the attention test (described in the measures section below), the final sample size was 271.

Ethical standards were upheld based on the Institutional Review Board and APA recommendations. Participants were provided with information about the study and what was expected of them for participation, and electronically signed an informed consent form before beginning the survey. Participants were asked to express their degree of agreement or disagreement with a series of statements. The first set of items was the negative agentic feedback measure developed in the pilot. The next sets of items were established measures of PSS, AC, turnover intentions. To support potential explanatory factors, participants then expressed agreement with items on measures of perceived organizational support, affective reactions and opinions regarding women as leaders. Finally, a series of items regarding demographic variables were asked. Total time for participation was approximately fifteen minutes.

Summary statistics for the sample can be found in Table 12. The final sample was 62.7% men, 48% Caucasian and 46.5% individual contributors. Participants were an average of 55.5 years old and have an average tenure of 13 years.
Table 12
*Summary Statistics*

<table>
<thead>
<tr>
<th>Variable</th>
<th>Demographic</th>
<th>% of Sample</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ethnicity</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Asian</td>
<td></td>
<td>4.1%</td>
</tr>
<tr>
<td>Black or African American</td>
<td></td>
<td>41.0%</td>
</tr>
<tr>
<td>Hispanic Latino</td>
<td></td>
<td>2.6%</td>
</tr>
<tr>
<td>Native Hawaiian or Other Pacific Islander</td>
<td></td>
<td>3.3%</td>
</tr>
<tr>
<td>Two or More Races</td>
<td></td>
<td>1.1%</td>
</tr>
<tr>
<td>White</td>
<td></td>
<td>48.0%</td>
</tr>
<tr>
<td>Level</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Director</td>
<td></td>
<td>3.0%</td>
</tr>
<tr>
<td>Individual contributor</td>
<td></td>
<td>46.5%</td>
</tr>
<tr>
<td>Manager</td>
<td></td>
<td>48.0%</td>
</tr>
<tr>
<td>VP and above</td>
<td></td>
<td>2.2%</td>
</tr>
</tbody>
</table>

**Measures.**

*Attention test.* A set of three questions were dispersed throughout the survey at roughly equal intervals to test whether the participants were fully reading the survey questions. The questions read: “If you are reading this, please respond ‘Often (3),’” “If you are reading this, please respond ‘To a small extent (6),’” and “If you are reading this, please select ‘not too well (5).’” Response values for all three items were added together to create the attention test score. A score of 14 was expected if the participant appropriately answered all three questions. All participants that did not receive a score of 14 were removed from the sample.

*Negative Agentic Feedback.* This measure was developed to assess the occurrence of the backlash effect. The measure was modified based on the results of the pilot study and a factor analysis to confirm loading of a reduced number of agentic terms onto a single factor was upheld in the current sample from Amazon Mechanical Turk. The post-hoc findings from the pilot
analysis found a subset of five agentic terms from the larger set of agentic terms initially used loaded onto a single factor (aggressive, forceful, controlling, dominant and assertive). To confirm that this subset of agentic terms should be used as the negative agentic feedback measure, an exploratory factor analysis on the new sample was conducted. Evaluation of the factors by parallel analysis revealed results in line with the findings from the pilot study. The first factor showed communal terms loading above the .5 level. The second factor (eigenvalue = 7.76, proportional variance = .21) revealed the same five theoretically supported agentic terms from the pilot study and an additional three theoretically supported terms with meaningful factor loadings above .5 (Eagly & Wood, 2012; Snyder, 2014; Williams & Tiedens, 2016). Based on the operationalization of the backlash effect, only the terms with the “less” direction were used, as women who act in line with the male gender role norm would be instructed to act less agentically (Eagly & Wood, 2012). The final list of agentic terms included in the backlash effect measure are: dominant, forceful, daring, powerful, direct, assertive, controlling and aggressive. The full list of terms was presented to the participant along with a six point response scale was used with the headings “1. Infrequently, 2. Sometimes, 3. Regularly, 4. Frequently, 5. Very Frequently, and 6. Does not use.” The following prompt, updated with an example of how to respond, came before the list of words and response options: “Please read the entire list of words below and, using the scale provided, indicate how likely your supervisor is to use that word when CRITIQUING your work or providing NEGATIVE feedback. For words likely to be used, please indicate the frequency of use and whether you are told to engage in more or less of that behavior. For example, if my supervisor often tells me to be more confident, I would select "Very Frequently" to the item "More Confident."” The participants were then presented the same list of words without any directionality indicators (therefore matching the basic list from the pilot
study) with the following prompt: “Please read the entire list of words below and indicate if your supervisor is likely to use that word when COMPLIMENTING your work or providing POSITIVE feedback. For words likely to be used, please indicate the frequency of use. For example, if my supervisor often tells me I am very caring, I would select "Very Frequently" for the item "Caring."” The final score for negative agentic feedback is a count of the eight identified agentic terms, within the negative feedback condition, amplified by the frequency of use for those agentic terms in the “less” direction. For example, if a participant has three of the included “less” agentic terms indicated for negative performance feedback, one with a rating of sometimes (2) and two with a rating of regularly (3), that participant would have a negative agentic feedback score of eight (2 + 3 + 3). However, if someone has 3 agentic terms identified, one with a rating of regularly (3), and two with ratings of very frequently (5), the negative agentic feedback score would be 13 (3 + 5 + 5). Cronbach’s alpha for the measure was $\alpha = 95$.

Table 13

<table>
<thead>
<tr>
<th>Key Word List for the Negative Agentic Feedback Measure.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Accepting (C)</td>
</tr>
<tr>
<td>Active (A)</td>
</tr>
<tr>
<td>Aggressive (A)</td>
</tr>
<tr>
<td>Agreeable (C)</td>
</tr>
<tr>
<td>Ambitious (A)</td>
</tr>
<tr>
<td>Assertive (A)</td>
</tr>
<tr>
<td>Careful (C)</td>
</tr>
<tr>
<td>Caring (C)</td>
</tr>
<tr>
<td>Communal (C)</td>
</tr>
<tr>
<td>Competent (A)</td>
</tr>
</tbody>
</table>

*Perceived Supervisor Support.* Perceived supervisor support (PSS) was assessed with a modified version of the short form of the Survey of Perceived Organizational Support as
identified by previous research (Items 1, 4, 9, 20, 23, and 27; Eisenberger, et al., 1986, 1990; Rhoades & Eisenberger, 2002; Shore & Tetrick, 1991; Shore & Wayne, 1993). The scale was modified by replacing the words *work organization* with the word *supervisor*. Sample items include “My supervisor values my contribution to the organizations’ well-being” and “My supervisor strongly considers my goals and values.” Extent of agreement with each item was rated on a 7-point likert scale from strongly disagree to strongly agree. Cronbach’s alpha for the measure was $\alpha = .80$.

**Perceived Organizational Support.** Perceived Organizational Support (POS) was measured using an eight item scale short form of the Survey of Perceived Organizational Support as it has been shown to be unidimensional with high internal reliability, while reducing the burden on participants (Items 1, 4, 9, 20, 23, and 27; Eisenberger, et al., 1986, 1990; Rhoades & Eisenberger, 2002; Shore & Tetrick, 1991; Shore & Wayne, 1993). Sample items include “My organization really cares about my well-being” and “My organization strongly considers my goals and values.” Extent of agreement with each item was rated on a 7-point likert scale from strongly disagree to strongly agree. Cronbach’s alpha for the measure was $\alpha = .86$.

**Affective Organizational Commitment.** Affective Organizational Commitment (AC) was measured using the six item scale developed to assess the feelings of belonging, psychological attachment and identification with the organization (Allen & Meyer, 1990). The framing for this question was “Please express your level of agreement with the following statements based upon your current organization.” A sample item was “I enjoy discussing my organization with people outside it.” All items were rated on a 7-point likert scale from strongly disagree to strongly agree. Cronbach’s alpha for the measure was $\alpha = .82$. 


**Turnover Intentions.** Turnover intentions was measured using a five item scale developed by Wayne, Shore and Linden (1997). The measure included three items from Landau and Hammer’s (1986) scale, one item from the Michigan Organizational Assessment Questionnaire (Nadler, Jenkins, Cammann & Lawler, 1975) and one developed by Wayne, Shore and Linden. Responses were on a 7-point likert scale from strongly disagree to strongly agree. Sample items included “I am actively looking for a job outside my current company” and “I think I’ll be working at my current company five years from now” (reverse coded). Cronbach’s alpha for the measure was \( \alpha = .85 \).

**Affective Reactions to Negative Feedback.** The Positive and Negative Affect Scale (PANAS; Watson, Clark & Tellegan, 1988) is a 20-item measure of positive and negative affect that is capable of capturing both state and trait affect. The PANAS has been independently tested and shown to be effective in non-clinical samples (Crawford & Henry, 2004), making it appropriate for the population in this study. The PANAS was administered to all participants with the framing of “Indicate to what extent you have felt this way when receiving constructive or negative feedback from your supervisor.” Responses were on a 5-point likert scale from 1 (very slightly or not at all) to 5 (extremely). Only the negative affect portion of the scale was calculated. Cronbach’s alpha for the measure was \( \alpha = .96 \).

**Women as Managers Scale (WAMS).** To measure gender norm endorsement in the workplace, the 21-item women as managers scale was used (Peters, Terborg, & Taynor, 1974). The framing for this question is: “The following items are an attempt to assess the attitudes people have about women in business. The best answer to each statement is your personal opinion. The statements cover many different and opposing points of view; you may find yourself agreeing strongly with some of the statements, disagreeing just as strongly with others,
and perhaps uncertain about others. Whether you agree or disagree with any statement; you can be sure that many people feel the same way you do.” Responses were on a 7-point likert scale from strongly disagree to strongly agree. Sample items included “It is less desirable for women than men to have a job that requires responsibility (reverse coded)” and “Women have the objectivity required to evaluate business situations properly.” Traditionally, a high score is associated with a favorable attitude toward women as managers. However, for ease of interpretation as endorsement of gender role norms, the measure was entirely coded in reverse so that a higher score indicates greater endorsement of the female gender role norm. Cronbach’s alpha for the measure was $\alpha = .93$.

**Incivility.** Incivility was measured using the Incivility scale (Cortina, Magley, Williams, & Langhout, 2001). The six item incivility scale was developed to assess the experience of subtle rudeness in the workplace based on demographic differences. The prompt for this measure was “During the PAST FIVE YEARS while employed at your current organization, have you been in a situation where any of your superiors or coworkers:” and a sample item was “Put you down or were condescending to you?” All responses were recorded on a 4-point likert scale from 1 (never) to 4 (most of the time). Cronbach’s alpha for the measure was $\alpha = .93$.

**Demographic Variables.** Demographic variables requested included gender (male, female, other), ethnicity (Asian, American Indian or Alaskan Native, Black or African American, Hispanic/Latino, Native Hawaiian or Pacific Islander, Two or more races, White), age (in years), position tenure (in years), position level (individual contributor, manager, director, VP and above), “Would you estimate there are more male or female employees in your company?” (Male, Female), career field (list to be populated from the results of the census review), “Is your supervisor male or female?” “Do you have supervisory responsibilities in your job role?”
Study 2: Results

**Negative agentic feedback measure validation analysis.** Prior to any statistical testing of relationships between variables, the internal reliability of each scale was measured using a coefficient alpha, to ensure the reliability was suitable for inclusion in the further analysis. A full correlation matrix of all variables, using the full sample (both men and women) can be found in Table 14. The coefficient alphas are located on the diagonal. An additional correlation matrix evaluating the relationships among variables for only women can be found in Table 15.
### Table 14
**Correlation Matrix of Key Variables - Men and Women**

<table>
<thead>
<tr>
<th>Variable</th>
<th>Mean</th>
<th>SD</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>10</th>
<th>11</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Negative Agentic Feedback</td>
<td>11.71</td>
<td>10.67</td>
<td>0.95</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Incivility</td>
<td>1.95</td>
<td>0.85</td>
<td>0.58*</td>
<td>0.93</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Perceived Supervisor Support</td>
<td>5.22</td>
<td>0.99</td>
<td>-0.16*</td>
<td>-0.32*</td>
<td>0.80</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Affective Organizational Commitment</td>
<td>4.53</td>
<td>1.17</td>
<td>-0.19*</td>
<td>-0.36*</td>
<td>0.57*</td>
<td>0.82</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Turnover Intentions</td>
<td>3.64</td>
<td>1.61</td>
<td>0.37*</td>
<td>0.59*</td>
<td>-0.44*</td>
<td>-0.67*</td>
<td>0.85</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. Women as Managers (reverse scored)</td>
<td>5.06</td>
<td>1.12</td>
<td>0.48*</td>
<td>0.53*</td>
<td>-0.35*</td>
<td>-0.28*</td>
<td>0.45*</td>
<td>0.93</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7. Perceived Organizational Support</td>
<td>4.89</td>
<td>1.11</td>
<td>-0.13*</td>
<td>-0.28*</td>
<td>0.78*</td>
<td>0.72*</td>
<td>-0.60*</td>
<td>-0.29*</td>
<td>0.86</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8. Affective Reactions to Negative Feedback</td>
<td>2.06</td>
<td>1.07</td>
<td>0.55*</td>
<td>0.69*</td>
<td>-0.26*</td>
<td>-0.29*</td>
<td>0.47*</td>
<td>0.44*</td>
<td>-0.22*</td>
<td>0.96</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9. Ethnicity</td>
<td>1.48</td>
<td>0.50</td>
<td>-0.46*</td>
<td>-0.45*</td>
<td>0.12</td>
<td>0.09</td>
<td>-0.23*</td>
<td>0.47*</td>
<td>0.04</td>
<td>-0.40*</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10. Level</td>
<td>1.61</td>
<td>0.66</td>
<td>0.10*</td>
<td>0.11</td>
<td>-0.03</td>
<td>0.11</td>
<td>-0.01</td>
<td>0.09</td>
<td>0.05</td>
<td>0.04</td>
<td>-0.10</td>
<td></td>
<td></td>
</tr>
<tr>
<td>11. Gender</td>
<td>1.37</td>
<td>0.48</td>
<td>-0.24*</td>
<td>-0.19*</td>
<td>0.13*</td>
<td>0.15*</td>
<td>-0.15*</td>
<td>-0.27*</td>
<td>0.10</td>
<td>-0.16*</td>
<td>0.28*</td>
<td>-0.06</td>
<td></td>
</tr>
<tr>
<td>12. Job Gender Dominance</td>
<td>0.54</td>
<td>0.22</td>
<td>0.20*</td>
<td>0.04</td>
<td>-0.08</td>
<td>-0.08</td>
<td>0.02</td>
<td>0.08</td>
<td>-0.05</td>
<td>0.03</td>
<td>-0.13</td>
<td>0.04</td>
<td>-0.29*</td>
</tr>
</tbody>
</table>

Note: *p<.05, sample size =271, Caucasian was coded as 2, all other as 1, so a mean closer to 2 for ethnicity indicates a strongly Caucasian sample. Gender was coded as 1 for men and 2 for women. Gender dominance of the job is a continuous variable where a higher value indicates male gender dominance. Negative Agentic Feedback measure is coded such that a higher value indicates greater frequency of negative agentic feedback. A higher score for Affective Reactions to Negative Feedback indicates greater negative affect.
Table 15
Correlation Matrix of Key Variables - Women Only

<table>
<thead>
<tr>
<th>Variable</th>
<th>Mean</th>
<th>SD</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>10</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Negative Agentic Feedback</td>
<td>5.51</td>
<td>6.11</td>
<td>0.95</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Incivility</td>
<td>1.75</td>
<td>0.81</td>
<td>0.41*</td>
<td>0.93</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Perceived Supervisor Support</td>
<td>5.38</td>
<td>1.03</td>
<td>-0.02</td>
<td>-0.36*</td>
<td>0.80</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Affective Organizational Commitment</td>
<td>4.76</td>
<td>1.30</td>
<td>-0.06</td>
<td>-0.34*</td>
<td>0.54*</td>
<td>0.82</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Turnover Intentions</td>
<td>3.33</td>
<td>1.73</td>
<td>0.22*</td>
<td>0.47*</td>
<td>-0.48*</td>
<td>-0.73*</td>
<td>0.85</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. Women as Managers (reverse scored)</td>
<td>2.54</td>
<td>1.18</td>
<td>0.33*</td>
<td>0.48*</td>
<td>-0.39*</td>
<td>-0.28*</td>
<td>0.40*</td>
<td>0.93</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7. Perceived Organizational Support</td>
<td>5.04</td>
<td>1.25</td>
<td>-0.01</td>
<td>-0.26*</td>
<td>0.75*</td>
<td>0.69*</td>
<td>-0.67*</td>
<td>-0.26*</td>
<td>0.86</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8. Affective Reactions to Negative Feedback</td>
<td>1.84</td>
<td>0.98</td>
<td>0.44*</td>
<td>0.73*</td>
<td>-0.23*</td>
<td>-0.22*</td>
<td>0.39*</td>
<td>0.39*</td>
<td>-0.13</td>
<td>0.96</td>
<td></td>
<td></td>
</tr>
<tr>
<td>9. Ethnicity</td>
<td>1.66</td>
<td>0.47</td>
<td>-0.45*</td>
<td>-0.52*</td>
<td>0.11</td>
<td>0.10</td>
<td>-0.22</td>
<td>0.45*</td>
<td>0.01</td>
<td>-0.46*</td>
<td></td>
<td></td>
</tr>
<tr>
<td>10. Level</td>
<td>1.55</td>
<td>0.62</td>
<td>0.04</td>
<td>0.06</td>
<td>0.07</td>
<td>0.08</td>
<td>-0.03</td>
<td>0.12</td>
<td>0.11</td>
<td>-0.11</td>
<td>-0.11</td>
<td></td>
</tr>
<tr>
<td>11. Job Gender Dominance</td>
<td>0.45</td>
<td>0.21</td>
<td>0.33*</td>
<td>0.09</td>
<td>-0.08</td>
<td>-0.05</td>
<td>0.00</td>
<td>0.04</td>
<td>0.00</td>
<td>-0.19</td>
<td>-0.22*</td>
<td>0.20</td>
</tr>
</tbody>
</table>

Note: *p<.05, sample size =101, Caucasian was coded as 2, all other as 1, so a mean closer to 2 for ethnicity indicates a strongly Caucasian sample. Gender dominace of the job is a continuous variable where a higher value indicates male gender dominance. Negative Agentic Feedback measure is coded such that a higher value indicates greater frequency of negative agentic feedback. A higher score for Affective Reactions to Negative Feedback indicates greater negative affect.
To provide additional validity evidence, the measure of incivility was included in the survey. The correlation between the backlash effect measure and incivility is strong and in the anticipated direction for the full sample \( r = .58, p < .001 \) and sample of only women \( r = .41, p < .001 \).

A second piece of validity evidence was explored by measuring the strength of endorsement of gender norms using the Women as Managers scale (Peters, Terborg, & Taynor, 1974). According to the traditional scoring of this measure, a lower score on this measure indicates greater support of gender role norms. For ease of interpretation, the scoring has been reversed so a high score can be interpreted as greater endorsement of the female gender role norm. The strength of endorsement of gender norms is likely to influence how an individual acts in the workplace and therefore how likely the person is to experience the backlash effect (i.e. a woman who endorses the female gender role norm strongly is more apt to act in line with the gender role norm, making that employee less likely to elicit the backlash effect). Based on this assumption, it was expected that the negative agentic feedback measure would be negatively related to the endorsement of gender role norms in female employees. A strong correlation between the negative agentic feedback measure and WAMS scale for female employees was found, but in the opposite direction anticipated \( r = .33, p < .001 \), indicating that women who more strongly endorse the female gender role norm (and therefore more likely to act in line with the gender role norm) report greater frequency of negative agentic feedback. These results are explored further in the post-hoc analyses.

**Hypothesis testing.** Hypothesis four, six and seven, predicting negative relationships between the backlash effect and PSS, the backlash effect and AC, and a positive relationship between backlash effect and turnover intentions, respectively, were tested using two methods.
First, correlations between the negative agentic feedback measure and the three outcome variables (backlash effect, PSS, AC and turnover intentions) were evaluated for the female participants in the sample only. The results of the correlation matrix show a significant relationship between the backlash effect and turnover intentions ($r = .22, p = .031$). The relationships between the backlash effect and PSS ($r = -.02, \text{n.s.}$) and AC ($r = -.06, \text{n.s.}$) are both small in magnitude and not significant. There are differences in the relationships when men are included in the sample which will be explored in the post hoc analysis.

Next, three multiple regressions were used to allow for investigation of the direct relationship, accounting for control variables of age, ethnicity, tenure, position level and gender dominance of job. All control variables are consistent with the analyses in study 1, with the addition of position level, as a main effect for position level was found in study 1 and a strong correlation between position level was found to be strongly related to negative agentic feedback in the pilot study. To address the theoretical construct of the backlash effect, which is defined as an experience of only women (Rudman, 1998), the interaction of negative agentic feedback and gender was tested. All regression analyses were conducted in the R software, using the base and psych packages. All variables were centered for the analyses. For each regression, in step one, the outcome variable of interest (PSS, AC and turnover intentions) was regressed onto the control variables. In the second step, the outcome variable was regressed on the control variables, the predictor and the moderator. Finally, step three regressed the outcome variable onto the predictor, moderator, and the hypothesized interaction term, or the cross-product between the predictor and the moderator variable to test the moderation hypotheses. Specific variables for the second and third step will be described in each analysis below.
In the regression to test hypothesis 4, predicting a negative relationship between receiving the backlash effect and PSS, PSS was the dependent variable. Full results of the analysis can be found in Table 16. In step one control variables were added with none exhibiting significant beta weights. In step two, a second model was estimated with negative agentic feedback and gender as the predictor variables. This model produced a non-significant $\Delta R^2$ value indicating the addition of the negative agentic feedback and gender do not explain a significant amount of variance above and beyond the control variables. Finally, to test the backlash effect, the interaction of negative agentic feedback and gender were added to determine if gender moderates the relationship between negative agentic feedback and PSS. Again, this addition produced a non-significant change in $R^2$ and a non-significant beta weight for the interaction ($\beta = .03, n.s.$). These results suggest the backlash effect does not relate to the experience of PSS as predicted.

Table 16

*Hierarchical Regression Analysis for Outcome Measure of PSS*

<table>
<thead>
<tr>
<th>Variables</th>
<th>B</th>
<th>SE B</th>
<th>$\beta$</th>
<th>$R^2$</th>
<th>Adj. $R^2$</th>
<th>$\Delta R^2$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Step 1. Control Variables</td>
<td></td>
<td></td>
<td></td>
<td>0.02</td>
<td>0.01</td>
<td>0.01</td>
</tr>
<tr>
<td>Ethnicity</td>
<td>0.02</td>
<td>0.03</td>
<td>0.04</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gender Dominance of Job</td>
<td>-0.20</td>
<td>0.31</td>
<td>-0.05</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Position Level</td>
<td>0.04</td>
<td>0.09</td>
<td>0.03</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tenure</td>
<td>0.00</td>
<td>0.00</td>
<td>0.08</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Age</td>
<td>0.00</td>
<td>0.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Step 2. Main Effects</td>
<td></td>
<td></td>
<td></td>
<td>0.04</td>
<td>0.02</td>
<td>0.01</td>
</tr>
<tr>
<td>Gender</td>
<td>0.08</td>
<td>0.21</td>
<td>0.04</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Negative Agentic Feedback</td>
<td>-0.03</td>
<td>0.03</td>
<td>-0.22</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Step 3. Interaction</td>
<td></td>
<td></td>
<td></td>
<td>0.04</td>
<td>0.01</td>
<td>0.00</td>
</tr>
<tr>
<td>Gender X Negative Agentic Feedback</td>
<td>0.01</td>
<td>0.02</td>
<td>0.03</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Note:* All beta weights represent the final model.

$p<.10, *p<.05, ** p<.01$
To test the final direct relationship, a regression to test hypothesis 6, predicting a negative relationship between women receiving the backlash effect and AC, used AC as the dependent variable. Full results of the analysis can be found in Table 17. In step one control variables were added with none showing significant beta weights. In step two, a second model was estimated with negative agentic feedback and gender as the predictor variables. This model produced a non-significant $\Delta R^2$ value indicating the addition of the negative agentic feedback and gender do not explain a significant amount of variance above and beyond the control variables. Finally, to test the backlash effect, the interaction of negative agentic feedback and gender were added. Again, this addition produced a non-significant change in $R^2$ and a non-significant beta weight for the interaction ($\beta = .01, n.s.$). Therefore, when considering the non-significant correlation, and the results of the regression, hypothesis 6 was not supported. The backlash effect does not exhibit a relationship to feelings of AC.

Table 17

<table>
<thead>
<tr>
<th>Variables</th>
<th>B</th>
<th>SE</th>
<th>$\beta$</th>
<th>$R^2$</th>
<th>Adj. $R^2$</th>
<th>$\Delta R^2$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Step 1. Control Variables</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ethnicity</td>
<td>-0.02</td>
<td>0.03</td>
<td>-0.04</td>
<td>0.04</td>
<td>0.01</td>
<td>0.01</td>
</tr>
<tr>
<td>Gender Dominance of Job</td>
<td>-0.19</td>
<td>0.35</td>
<td>-0.04</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Position Level</td>
<td>0.29</td>
<td>0.24</td>
<td>0.17*</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tenure</td>
<td>0.00</td>
<td>0.00</td>
<td>-0.02</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Age</td>
<td>0.00</td>
<td>0.00</td>
<td>-0.04</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Step 2. Main Effects</td>
<td></td>
<td></td>
<td></td>
<td>0.06</td>
<td>0.03</td>
<td>0.02</td>
</tr>
<tr>
<td>Gender</td>
<td>0.25</td>
<td>0.23</td>
<td>0.11</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Negative Agentic Feedback</td>
<td>-0.03</td>
<td>0.04</td>
<td>-0.17</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Step 3. Interaction</td>
<td></td>
<td></td>
<td></td>
<td>0.07</td>
<td>0.04</td>
<td>0.01</td>
</tr>
<tr>
<td>Gender X Negative Agentic Feedback</td>
<td>0.00</td>
<td>0.03</td>
<td>0.01</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note: All beta weights represent the final model.
+p<.10, *p< .05, ** p< .01
In the regression to test hypothesis 7, predicting a positive relationship between individuals receiving the backlash effect and turnover intentions, turnover intentions was the dependent variable. In step one control variables were added with none showing significant beta weights. As seen in Table 18, this model for step two produced a significant ΔR² value (ΔR² = .08, p < .001), with negative agentic feedback demonstrating a significant relationship to turnover intentions (β = .30, p < .001). This main effect of negative agentic feedback suggests, for all employees, the experience of critical feedback in high frequency can relate to higher intentions to leave an organization. In step 3, the interaction of negative agentic feedback and gender was added to evaluate the experience of the backlash effect. The change in R² value for the interaction model was not significant and the beta weight for the interaction term was both not significant, small in magnitude and the opposite direction anticipated to support the backlash effect as a negative beta weight indicates a stronger relationship for men (β = -.06, n.s.). The significant correlation for women between negative agentic feedback and turnover intentions, taken together with the non-significant interaction effect in the regression model provide only partial support for the relationship between the experience of the backlash effect and turnover intentions for female employees. For all direct relationships, an additional three way interaction model with gender dominance of the job included in the interaction term was run. None of the models were significant, but the three way interaction of gender, level and gender dominance of the job when considering turnover intentions show some potential with a larger sample size (B = -.09, p = .160).
Hayes (2013) mediation analysis procedure was used to test PSS as an explanatory mechanism for the relationships between the backlash effect and both AC and turnover intentions (hypothesis 5). To approximate the backlash effect, only the female employees in the sample were included in these analyses. Two mediation analyses were conducted in SPSS using the Hayes (2013) PROCESS macro (model four), one for each of the dependent variables, using PSS as the mediating variable. Both analyses were run with the recommended 10,000 bootstrap samples (Hayes, 2013). Due to multiple testing on the sample, a Bonferroni correction was applied to the confidence intervals ($\alpha = .05/2 = .025$), making the Bonferroni-corrected 95% confidence intervals 97.5%. The covariates matched the previous hypothesis testing and included ethnicity, level, age, tenure and gender dominance of the job. As seen in figure 4, and as expected from previous research (e.g., Casper, Harris, Taylor-Bianco, & Wayne, 2011; Eisenberger, et al., 2002), PSS is significantly related to both outcomes (figure 4, path $b$). The test of mediation was calculated as the estimate of the indirect effect of the backlash effect on

### Table 18

**Hierarchical Regression Analysis for Outcome Measure of Turnover Intentions**

<table>
<thead>
<tr>
<th>Variables</th>
<th>$B$</th>
<th>SE $B$</th>
<th>$\beta$</th>
<th>$R^2$</th>
<th>Adj. $R^2$</th>
<th>$\Delta R^2$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Step 1. Control Variables</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ethnicity</td>
<td>-0.04</td>
<td>0.04</td>
<td>-0.07</td>
<td>0.07</td>
<td>0.05</td>
<td>0.05*</td>
</tr>
<tr>
<td>Gender Dominance of Job</td>
<td>-0.26</td>
<td>0.47</td>
<td>-0.04</td>
<td>0.00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Position Level</td>
<td>-0.19</td>
<td>0.15</td>
<td>-0.08</td>
<td>0.00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tenure</td>
<td>0.00</td>
<td>0.00</td>
<td>-0.05</td>
<td>0.00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Age</td>
<td>0.00</td>
<td>0.00</td>
<td>0.05</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Step 2. Main Effects</td>
<td></td>
<td></td>
<td></td>
<td>0.15</td>
<td>0.13</td>
<td>0.08*</td>
</tr>
<tr>
<td>Gender</td>
<td>-0.13</td>
<td>0.32</td>
<td>-0.03</td>
<td>0.15</td>
<td>0.13</td>
<td>0.08*</td>
</tr>
<tr>
<td>Negative Agentic Feedback</td>
<td>0.12</td>
<td>0.05</td>
<td>0.48*</td>
<td>0.15</td>
<td>0.13</td>
<td>0.08*</td>
</tr>
<tr>
<td>Step 3. Interaction</td>
<td></td>
<td></td>
<td></td>
<td>0.16</td>
<td>0.13</td>
<td>0.00</td>
</tr>
<tr>
<td>Gender X Negative Agentic Feedback</td>
<td>-0.03</td>
<td>0.03</td>
<td>-0.06</td>
<td>0.16</td>
<td>0.13</td>
<td>0.00</td>
</tr>
</tbody>
</table>

*Note: All beta weights represent the final model.
+ $p<.10$, * $p< .05$, ** $p< .01$
AC and turnover intentions, quantified as the product of the regression coefficient estimating PSS from the backlash effect (path $a$ in figure 4) and the outcome variable (AC or turnover intentions) from PSS (path $b$ in figure 4). A bias-corrected bootstrap-confidence interval for the product of these paths that does not overlap zero would indicate a mediation of PSS between the backlash effect and both outcome variables (Hayes, 2013). Neither mediation was supported. The indirect effect for turnover intentions (point estimate = .003, 97.5% CI = -.02 to .03) and the indirect effect for AC (point estimate = -.003, 97.5% CI = -.03 to .02) both overlapped zero. Given the smaller than anticipated effect sizes, power was an issue in the analysis. However, with a point estimate of less than .01, the practical significant of the mediation, if power were not an issue, would still need to be considered. The results of the mediation analysis suggest that, although there is some support for a relationship between the backlash effect and turnover intentions for women, PSS may not be the explanatory mechanism for the relationships.
Figure 4. Path coefficients for mediation analysis on AC (top) and Turnover intentions for women (bottom, N = 101).
Note: The dotted line refers to the relationship between the backlash effect and outcome variable when PSS is not included as a mediator. + p < .10, * p < .05, ** p < .01

Study 2: Post Hoc Analyses

The results of the main analyses produced some unexpected results. Contrary to theory and previous research, men express greater frequency of negative agentic feedback compared to women when tested using an independent samples t-test (t = -4.06, p < .001, d = .50). Therefore, a series of post-hoc analyses to further understand the experiences of men and women with regards to performance feedback were conducted.
The first area of exploration is based on the correlation between gender and negative affective reactions to critical feedback seen in Tables 14 ($r = .56$, $p < .001$). To explore this further, the average negative affective reaction to critical feedback was compared directly for men and women using a one way ANOVA. The analysis revealed men report significantly higher average negative affect compared to women when receiving critical performance feedback ($F(1,269) = 7.02$, $p = .009$, $d = .34$), suggesting men have a higher sensitivity to critical performance feedback than women.

The next analysis investigated the differences in frequency of performance feedback overall. Using two one way ANOVAs, men report higher frequency of negative feedback overall ($F(1,269) = 20.7$, $p < .001$, $d = .57$) as well as higher frequency of positive performance feedback ($F(1,269) = 6.24$, $p = .013$, $d = .30$). These results suggest men may receive more performance feedback from supervisors in the workplace compared to women.

When comparing frequency of specific terms in both positive and negative feedback for men and women, only 4 terms are rated as more frequent for women. All are within the positive performance feedback context and all but one are communal: caring, considerate, helpful and organized. Given that men overall report greater frequency of positive feedback, the elevation of these specific terms in women’s positive performance feedback indicates some shaping behaviors to encourage women to be more feminine. To evaluate whether men experience a similar shaping phenomenon, but to be agentic, an approach modeled on the difference in differences (DID) approach was utilized (Wooldridge, 2010). The DID approach is borrowed from economics and is traditionally used to mimic an experimental method in an uncontrolled environment. It involves comparing the differences between a control and experimental group over time. This method allows the base level of the variable of interest to vary naturally for each
group, but still permits interpretation of overall change for the experimental group compared to
the control group over time. For the purposes of this analysis, an approach similar to the DID
method was used for a single point in time. This approach allows the comparison of reported
frequency of gender-aligned terms in positive feedback between men and women, despite men’s
overall higher reported frequency of feedback, both positive and negative. Modeling off a DID
approach, a positive feedback difference variable for each participant was created. The positive
feedback difference variable was calculated by subtracting the average reported frequency of
communal terms from the average reported frequency of agentic terms, both within positive
feedback. Then, using the R software, a one-way ANOVA compared the overall difference
between men and women’s average reported differences of the agentic and communal terms. The
results reveal men report greater reinforcement for displaying agentic behaviors than communal
behaviors whereas women report greater reinforcement for displaying communal behaviors
\( F(1,269) = 16.95, p < .001, d = .51 \), supporting that both women and men experience a shaping
phenomenon, through positive feedback, to act in line with their gender role norm. See figure 5
for a visualization of this difference.
Figure 5. Shaping phenomenon in men and women’s performance feedback perceptions. Based on the difference in differences approach, the one-way ANOVA used the difference between self-reported frequency of communal and agentic terms in positive feedback as the dependent variable.

Following up on the evidence of a shaping phenomenon, a positive communal feedback variable was created for study one data, and a replication of the moderated poisson regression with this new outcome variable was conducted. The variable is a count of communal keywords within positive feedback. The analysis originally used to test the backlash effect (operationalized as negative agentic feedback) was replicated exactly with positive communal feedback as the outcome. This resulted in a significant interaction between gender and level (parameter estimate $= -.282, p = .008$). A simple slopes analysis was conducted to further understand the interaction and revealed a significant slope at the leader level of the moderator (simple slope $= -.82$), $t(393) = -2.54, p = .011$ and a non-significant slope at the individual (simple slope $= .41$), $t(393) = 1.31,$
$p = .191$. See figure 6 for a visual representation. At the individual contributor level, the shaping phenomenon does appear to be holding. Though the simple slope analysis is not significant, the slope is in the anticipated direction, with women’s feedback exhibiting more positive communal feedback. However, at the leadership level, there is an interesting phenomenon. It seems the findings from Heilman et al. (2004), where men were rewarded for acting communally is happening for leaders. The simple slope analysis is significant such that men in leadership roles have significantly greater positive communal feedback. It appears that in leadership roles, where male leaders are expected to be agentic, when they act communally it is especially noticed and rewarded.

*Simple Slopes Analysis for Positive Communal Feedback*

*Figure 6.* Position level as a moderator of the relationship between gender and positive communal feedback in written performance appraisal. The dashed line represents the leader group. The solid line represents the individual contributor group.
Finally, additional analyses were conducted to help explain the positive relationship between endorsement of female gender role norms and negative agentic feedback for women \((r = .33, p = .041)\). An average for frequency of the “more communal” terms within negative feedback was created by calculating the average reported frequency of the eighteen communal words with the “more” prefix. The sole use of the words with the “more” prefix is based on the theoretical grounding of the backlash effect, that women who act out of line with the female gender role norm will be redirected back to the expectation (i.e. to be more communal; Rudman, 1998). The correlation between the average frequency of more communal terms and the female gender role norm endorsement variable was calculated, expecting a negative relationship given that women who are more endorsing of the gender role norm are expected to naturally act more in line with it. Contrary to expectation, this revealed a similar positive significant relationship \((r = .41, p = .038)\), indicating that women who are less endorsing of the female gender role norm also experience lower frequency of redirecting towards communal actions in critical feedback compared to women who are more endorsing of the gender role norm. Given these findings that do not align with the theoretically anticipated relationships, an additional explanation may be provided by the positive relationship between endorsement of gender role norms and negative affective reaction when receiving critical feedback \((r = .39, p < .001)\). Though not anticipated a priori, it appears that women who are less endorsing of the female gender role norm are also less sensitive to critical feedback in the workplace, meaning although they may experience the backlash effect, they may not perceive it in the same way as someone more sensitive to critical feedback in the workplace. Stated differently, women who more strongly align with the female gender role norm appear to also exhibit greater sensitivity to critical performance feedback in the
workplace which may explain the strong correlation between endorsement of gender role norms and negative agentic feedback for women.

**Study 2: Discussion**

Study two and the pilot study for study 2 aimed to address two main goals: First, establish a new psychological measure to evaluate the conceptual experience of the backlash effect in the workplace and second, address whether the experience of the backlash effect relates to individual level outcomes of PSS, AC and turnover intentions. Though the hypotheses were generally unsupported using the negative agentic feedback measure as an approximation of the backlash effect, the results provide strong preliminary insight into the intricacies of the backlash effect in performance feedback and a foundation for further scale development. Additionally, the post hoc analyses provide new insights into the differences in the performance feedback experience for men and women.

The negative agentic feedback measure, as developed, exhibits relationships with established measures as anticipated, such as the positive relationship with incivility and the negative relationship with interpersonal justice and procedural justice. However, when the samples were split into men and women, as the theoretical construct of the backlash effect applies solely to women (Heilman, et al., 2004; Rudman, 1998), men report higher average frequency of negative agentic feedback and the relationships with PSS and AC both were not significant when tested for only women despite being significant in the full sample. This indicates the negative agentic feedback measure, without a means of controlling for level of agentic behavior prior to feedback, may not be measuring the desired construct of the backlash effect. The measure may instead be tapping the more general experience of receiving critical feedback. This illustrates the importance of performance feedback for all employees, regardless
of gender. It also suggests that negative agentic feedback is part of the backlash effect for women, as women do report strong relationships between negative agentic feedback and employee outcomes, and should be considered in conjunction with the findings from the post-hoc analysis regarding shaping behaviors with positive feedback.

Of all the hypotheses in this section, only one, hypothesis seven, predicting a positive relationship between the backlash effect and turnover intentions, was partially supported. This partial support comes from the positive correlational relationship between negative agentic feedback frequency and turnover intentions in just the female employees. Support was not found for hypothesis four (a negative relationship between the backlash effect and PSS), six (a negative relationship between the backlash effect and AC), or hypothesis five which predicted PSS as an explanatory mechanism between the backlash effect and both AC and turnover intentions. It appears, for women, that the experience of negative agentic feedback does not directly relate to their relationship with a supervisor or the organization overall. This suggests the perceived quality of interpersonal relationships for women in the workplace and commitment to the organization may be separate from the experience of critical performance feedback. The lack of mediation support is partly a power issue due to a reduced sample size of 101. However, the small magnitudes of the mediation also suggest the relationships are not meaningful despite power issues. It is unable to be determined from the current data whether the lack of support is due to a true lack of relationship or the limitations of the measure used to approximate the backlash effect. These hypotheses should be tested again after further development of a more adequate measure of the backlash effect.

The most enlightening findings of this research were in the post-hoc analyses trying to better understand the shortcomings of the backlash effect measure development. The first area
explored was affective reactions to negative feedback. Overall, men report higher sensitivity to the experience of critical feedback than women. Higher sensitivity to critical feedback may indicate that men are more likely to perceive feedback as negative compared to women. This means, contrary to the prescriptive stereotype that women are more sensitive, men may actually have greater emotional responses to critiques within the workplace. One explanation is men may generally have a stronger relationship between work and overall self-esteem compared to women. As described in social role theory, the prescriptive stereotypes for men focus on the historical association between men and work or providing (Eagly & Wood, 2012). If we are still seeing impacts of these prescriptive stereotypes for women, such as the backlash effect, it is not unexpected that there may also be an impact for men.

The second post-hoc analysis, evaluating the overall frequency of negative and positive feedback between men and women shows men report higher frequency of both negative and positive feedback. The theoretical foundation of this research is social role theory, which is based on prescriptive stereotypes (Eagly & Wood, 2012). One prescriptive stereotype for women is high emotionality, despite the findings to the contrary in this research. This may lead managers to unconsciously avoid potentially controversial conversations with women, which may explain why women report less frequency of feedback overall compared to men. This explanation is supported by recent research that evaluated 70,000 employees from 220 organizations and found that, despite similar requests for performance feedback, women are less likely to receive it (Thomas, et al., 2016). Another interpretation of this difference may lie in the sensitivity differences discovered in the current research, with men reporting higher sensitivity to critical performance feedback. The higher sensitivity to critical feedback may lead men to interpret more interactions with their supervisors as performance feedback, especially critical feedback.
The current research also needs to be considered in conjunction with the influence of social norms at this point in American culture, especially with increased lawsuits encouraging organizations to educate around not using biased language with employees (e.g., Chen-Oster v. Goldman Sachs, 2015; Moussouris v. Microsoft, 2017). In the current data, women report significantly greater frequency of positive feedback around communal terms, while men report greater frequency of positive feedback around agentic terms. This suggests, within the informal feedback context, the experience of the backlash effect today may be more of a grooming process than a disciplinary one. This grooming process is likely to manifest as women being rewarded, through positive feedback, when acting in line with the female gender role norm, rather than being told to be less in line with the male-gender role norm (i.e. positive performance feedback for communal behaviors versus negative feedback for agentic behaviors). The post-hoc analyses show a grooming of women to be more communal through positive feedback, although the main analyses do not indicate women as receiving more negative agentic feedback. Therefore, together, these analyses provide evidence for a grooming phenomenon through positive feedback, as opposed to critical feedback to act less agentically, supporting the idea that shaping behaviors, through positive feedback, may be the more socially acceptable way for the backlash effect to emerge in the workplace today.

The final post-hoc analysis was an exploration of the unexpected negative relationship between endorsement of gender role norms and frequency of negative agentic feedback in female employees. Contrary to expectation, women who more strongly endorse the female gender role norm also report greater frequency of negative agentic feedback. Although unable to know definitively from this research, one possible explanation is that women have to develop a higher resistance to negative feedback, especially when they are more likely to violate the female
gender role norm, such as when they are less endorsing of the prescriptive stereotypes for women, or are working in a field dominated by men. An additional explanation may be the higher sensitivity to critical performance feedback for women who more strongly endorse the female gender role norm, suggesting that women who do not endorse the female gender role norm may be less aware of criticisms received for not acting in line with it. The results of the first study, and previous research (e.g., Williams & Tiedens, 2016) suggest that the backlash effect does still occur today, and therefore it is reasonable to expect that women have developed coping mechanisms, both conscious and unconscious, to manage in their current workplace environments.

**Limitations and future research.** This research is the first documented attempt to develop a self-report measure of the backlash effect phenomenon and provides insight for future scale development, and therefore does have limitations to be considered. The backlash effect is a subtle phenomenon rooted in social exchange (Rudman, 1998), and, although theoretically grounded, the current scale is limited to the negative, agentic feedback context. The measure used to assess this experience will benefit from further refinement based on the current research findings to help capture the nuances of the backlash effect within the performance feedback context. The current development was also limited in ability to differentiate between formal and informal feedback instances. The context of performance feedback may impact an employee, and the relationship with a supervisor, in different ways and therefore warrants future exploration.

Future research should expand on the research conducted here. The results thus far suggest tapping into the experience of the backlash effect needs to be more subtle than previously anticipated. Items that describe the experience of the backlash effect may be more effective at measuring the underlying construct and allow for more subtle distinctions in
experience. Additionally, to adequately account for the current culture around feedback and discrimination in the workplace, it appears that managers may be using positive performance feedback to encourage gender role norm aligned behaviors rather than critical feedback to deliver these messages. This differentiation should be taken into account in future item development. Preliminary studies would allow further evaluation of whether the backlash effect presents as a negative interaction or more subtle encouragement to be more in line with the female gender role norm. Finally, it will be important for item development to include both contexts of performance feedback, formal and informal, to capture the broader experience for women in the workplace.
Chapter 5
Overall Discussion and Conclusions
This research opened with a contradiction, stating that, previous research asserts there is no systematic gender bias in performance appraisal ratings (Roth, Purvis & Bobko, 2012), yet there continue to be staggering differences in representation at upper levels of leadership (Bureau of Labor Statistics, 2015) and extensive mainstream conversation around differential treatment within the workplace between men and women (Caprino, 2015). The results of the current research provide insight into one aspect of the employee experience (i.e. performance feedback) that may help reconcile the mismatch between academic and practical understanding of the presence of gender differences in the area of talent management. The current research provides both empirical evidence of systematic bias in organizational performance appraisals and gender differences in the experience of performance feedback. Contrary to previous quantitative research (e.g., Eagly & Wood, 2012; Williams & Tiedens, 2016), these differences were found at all levels of the organizational hierarchy, not solely at the leadership level. The current research also demonstrates that employee perception of performance feedback differs from what is demonstrated in documented performance appraisals. When evaluating employee perception of feedback, the backlash effect, defined as negative agentic feedback, does not appear to be perceived by women. Instead, women report more communal focused positive feedback, suggesting the operationalization of the backlash effect needs to be expanded to account for a broader spectrum of manifestations in today’s workplace. Additional gender differences in the experience of performance feedback were also found, including differential sensitivity to critical feedback and varying perceptions of feedback frequency. Overall, the current research provides evidence of gender differences in the performance feedback experience, prompting both further research in regard to the backlash effect and practical implications in regards to the ongoing
mainstream conversation around differential representation of women at higher levels of the organizational hierarchy (e.g., Caprino, 2015, Thomas, et al., 2016).

**Contributions**

The most important contribution of the current research is empirical evidence of the backlash effect in written performance feedback for employees in multiple organizations. Though quite a few studies have utilized quantitative approaches to understand the backlash effect (e.g., Eagly & Wood, 2012; Williams & Tieden, 2016), this is some of the first work to extend this area of research to the qualitative context. Though previous researchers have investigated gender differences in the qualitative context of feedback on academic writing (Chung, Marshall & Gordon, 2011) and academic letters of recommendation (Madera, Hebl & Martin, 2009; Trix & Psenka, 2003), only one study has investigated gender differences in corporate employee performance appraisals (Snyder, 2014). Though informative, Snyder’s work was inductive in nature, not grounded in any psychological theory, and reported primarily word count differences without any statistical analysis. Therefore, her work only lays a preliminary foundation in the area of qualitative differences based on gender in performance feedback. The majority of the previous qualitative research has found evidence of systematic gender differences (Madera, Hebl & Martin, 2009; Snyder, 2014; Trix & Psenka, 2003), which is supported in the current study of organizational data. Contrary to the previous research, this is the first qualitative study to use a theoretically grounded deductive approach in organizational data (versus inductive; Snyder, 2014) and therefore was able to establish evidence that the backlash effect does not manifest solely in ratings of likability (e.g., Eagly & Wood, 2012; Williams & Tiedens, 2016), but also in an area of the employee experience intended to promote professional growth (i.e. the performance appraisal). Additionally, the current research explored and found evidence
of the backlash effect in employees’ performance feedback both in leadership roles and individual contributor roles, which has not been previously explored in the qualitative or quantitative context (e.g., Snyder, 2014; Williams & Tiedens, 2016). This finding is of particular importance because it builds on the notion that women may be at a disadvantage long before reaching leadership levels (Eagly & Carli, 2007), emphasizing the importance of investigating this phenomenon at all levels of the organizational hierarchy.

The second major contribution is evidence of shaping behaviors revealed in the perceptual data of study two. Shaping behaviors, or the use of positive feedback for gender role aligned behaviors, expands the current understanding of how the backlash effect may manifest in today’s workplace. Previous research has focused primarily on negative social interactions and detriments to ratings of various opinions of women when violating the female gender role norm (e.g., Rudman, et al., 2012; Williams & Tiedens, 2016). A focus solely on negative feedback may represent only one aspect of the manifestation of the backlash effect in the workplace as evidenced in study two where women report significantly greater communal-related positive feedback compared to men. Given the heightened awareness today around gender differences, largely due to recent lawsuits related to gender (e.g., Chen-Oster v. Goldman Sachs, 2015; Moussouris v. Microsoft, 2017), it is not surprising that the backlash effect may manifest in different ways than traditionally found, such as shaping behaviors in positive performance feedback. Organizations instructing people to treat everyone fairly, on the surface may alter interactions between employees, but does not address the root cause of the backlash effect, which are long-ingrained prescriptive stereotypes around men and women (Eagly & Wood, 2012). Therefore, the reaction that emerges as the backlash effect (i.e. an individual feels the need to redirect another’s behavior to be more in line with behavior that is expected) still occurs, as seen
in the results of study one, but may manifest in a manner considered more socially acceptable when in a place of employment, such as using positive feedback to redirect behavior as seen in study two.

A third contribution, one derived from the post-hoc analyses of study two, is a difference in sensitivity to critical performance feedback for men and women. Men report significantly greater negative affect in response to critical feedback compared to women, suggesting a higher sensitivity to negative performance feedback. This may point to a defense mechanism that has been developed for women in response to negative experiences in the workplace (Cramer, 2006). As the modern workplace generally requires more agentic behaviors for success (e.g., Eagly & Carli, 2007), women are naturally set up to violate the female gender role norms, leading to instances of likability issues and negative social interaction (e.g., Eagly & Wood, 2012). Cramer (2006) explains adults develop defense mechanisms to protect the self from experiencing excess anxiety and to maintain integration of the self. In a situation requiring agentic behaviors for success, which violates the expectations according to the gender role norms for a female employee, defense mechanisms may enable a woman to protect the self against the negative social interactions resulting from the competing demands (e.g., Eagly & Wood, 2012; Cramer, 2006). Alternatively, this may also point to a difference in either perception of critical feedback for men and women, or a difference in how critical feedback is delivered. On one hand, it is possible that men are innately more sensitive to critical performance feedback. On the other hand, it is possible that men receive critical feedback in more blunt terms compared to women. If managers rely on the prescriptive stereotype of women being more emotionally reactive (e.g., Gray, 2004), they may be more conscious of the manner in which critical performance feedback is delivered to women compared to men, thereby creating a less emotionally evoking experience
for women. The current data does not provide clarity on which explanation best fits the employee experience, but the finding does point to an area of future research in regard to building inclusive environments for all employees, regardless of gender.

The final contributions come from the comparison of the organizational and self-report survey data which highlight frequency and perceptual differences for men and women in regard to performance feedback. In the self-report data of study two, men report greater frequency of feedback, both positive and negative. This is consistent with recent findings from a large organizational study by Mckinsey and Company (Thomas, et al., 2016), which shows women request feedback at a similar rate to men, but are less likely to receive it. Study one does indicate slightly more written feedback for men’s performance reviews compared to women, however the difference is not as extreme as in the perceptual data. There are two possible explanations for the difference. First, men may perceive more interactions with their manager as performance feedback compared to women. This would align with the higher sensitivity to critical feedback reported for men in study two and would suggest there is not a meaningful difference in the amount of feedback given to men and women, just a difference in interpretation of social situations. Alternatively, this could point to differences in informal performance feedback frequency between men and women. The prompt for the self-report survey did not specify formal versus informal performance feedback contexts. Therefore, the differences in feedback quantity between the formal feedback in study one compared to the self-report frequency of feedback in study two may suggest men receive more informal performance feedback between formal performance appraisals. This would be of great concern, as informal feedback is a crucial part of an effective performance management system (e.g., den Hartog, Boselie & Paauwe, 2004) and constructive performance feedback helps direct employee attention to specific behaviors that can
be improved to achieve professional growth and promotion (e.g., Denisi, 2000). Together, these findings indicate yet another potential concern for women’s professional development in not only quality, but quantity of feedback available to female employees in the workplace.

**Pattern of Results**

Study one, using objective performance feedback data, expanded the research on the backlash effect to include qualitative evaluation of the phenomenon. The results showed no support for the first two hypotheses. Women’s feedback did not contain more agentic terms than men’s feedback in male-dominated job roles, nor did gender moderate the relationship between agentic terms and feedback valence. Lack of support for the first two hypotheses show it is not solely agentic terms that are greater for women, nor is it negative feedback, but rather the two in conjunction that reveal a systematic difference and support for the first research question of whether the backlash effect can be empirically demonstrated in written performance appraisal feedback. The third hypothesis, consisting of two parts, was partially supported. The first part, which measured the backlash effect, operationalized as agentic terms within negative performance feedback, for all women was significant. Based on the emphasis towards leaders in previous research (e.g., Williams & Tiedens, 2016), the second part tested whether it was the female leaders who would be more likely to receive this kind of feedback. The lack of support for this hypothesis indicates that women at higher levels within an organization are not more likely to receive the backlash effect. Together, the two parts of hypothesis three provide evidence that the backlash effect is a phenomenon experienced for women at all levels within the organizational hierarchy.

The findings of the first study are not reflected in the second study, but a series of post-hoc analyses provide additional insight into the performance feedback experience for men and
women. Of the hypotheses in study two, only a relationship between the backlash effect and turnover intentions for women was partially supported. Relationships were not found between the backlash effect and either PSS or AC. The full mediation models were also not significant, suggesting PSS may not be the mechanism to explain the relationship between the backlash effect and turnover intentions. Even though statistical power was of concern, these results do suggest other explanatory mechanisms may need to be considered. The results of the post-hoc analyses show women exhibit lower sensitivity to critical performance feedback. Therefore, the experience of the backlash effect, alone, may not be enough to damage the employee-supervisor relationship. Additionally, if the evidence of shaping behaviors, rather than solely negative agentic feedback, is a better representation of how the backlash effect manifests in today’s workplace; this phenomenon may not have a negative impact on the employee-supervisor relationship as it may come across as positive interactions. These results do need to be considered in regards to the scale used to measure the backlash effect. Further refinement of the scale to distinguish between the backlash effect manifesting as negative versus positive performance feedback may reveal differential impacts on the employee’s PSS. Therefore, these hypotheses deserve further exploration, in addition to alternative possible explanatory mechanisms such as optimism for one’s career growth or perception that promotions are awarded fairly within the organization (e.g., Thomas, et al., 2106).

The post-hoc analyses of study two provide insight that can help in future scale development and also shed light on how men and women’s experience in the workplace differ. Evidence of shaping behaviors, emerging as an emphasis on positive feedback around the gender role norm, was revealed for both men and women. Men, overall, report greater frequency of performance feedback, both positive and negative. But when comparing each item, four terms
were reported as more frequent for women, three of which are communal in nature. Additional analyses, based on a DID approach, provided statistical support that women’s positive performance feedback is more communally focused, while men’s positive feedback is more agentic in nature. The formal performance feedback data of study one also show a higher average of communal terms in positive feedback for women compared to men. Although the difference is not statistically significant, when considered in conjunction with the results of study two these findings reflect changes in social norms at this point in American culture. In the face of increased lawsuits in response to gender inequities in the workplace (e.g., Chen-Oster v. Goldman Sachs, 2015; Moussouris v. Microsoft, 2017), organizations are educating around not using biased language with employees. Therefore, these analyses provide evidence for a shaping phenomenon through positive feedback, as opposed to critical feedback to act less agentically. This supports that shaping behaviors, through positive feedback, may be the more socially acceptable way for the backlash effect to emerge in the workplace today.

A second important finding from the post-hoc analyses is a greater frequency of feedback, overall, for men. This post hoc finding is also reflected in the organizational data from study one, though is not statistically significant. A recent organizational study sampling 220 organizations reports a similar finding, that despite similar requests for performance feedback, women are less likely to receive it (Thomas, et al., 2016). The theoretical foundation of the current research, Social Role theory, is based on prescriptive stereotypes (Eagly & Wood, 2012). One prescriptive stereotype for women is high emotionality (e.g., Gray, 2004), despite the findings to the contrary in this research. This may lead managers to unconsciously avoid potentially controversial conversations with women, which may explain why women report less frequency of feedback overall compared to men. Although not directly evidence of the backlash
effect, less feedback presents a detriment to female employees’ development and represents another obstacle delaying women’s advancement in the workplace.

Finally, men report higher negative affective reactions to critical performance feedback compared to women. This means, contrary to the prescriptive stereotype that women are more sensitive (e.g., Gray, 2004), men may actually have greater emotional responses to critiques within the workplace. Although unable to know definitively from this research, one possible explanation is that women have to develop a higher resistance to negative interactions, including negative feedback in order to be successful in the organizational context. The results of the first study, and previous research (e.g., Williams & Tiedens, 2016) suggest that the backlash effect does continue to occur today and therefore it is reasonable to expect that women have developed coping mechanisms to manage in their current workplace environments (Cramer, 2006).

Alternatively, this may reflect a reaction to greater negative performance feedback received by men, as suggested in study two and outside research (e.g., Thomas, et al., 2016), or possibly more blunt presentation of critical feedback by managers due to perceived lower sensitivity of men (e.g., Gray, 2004). This finding should not be considered conclusive but indicative that further research is required to better understand this experiential difference for men and women in receiving critical performance feedback. Better understanding of emotional reactions and interpretation could help direct and improve delivery methods of constructive performance feedback for all employees.

**Implications for Research**

The current studies provide multiple implications for research. Despite many cultural changes from the 1980s, when Social Role theory was initially developed (Eagly & Wood, 2012), this theory continues to be relevant in understanding the experience of women in our
society and the organizational context. Guided by Social Role Theory, the current research provides evidence that the backlash effect is a phenomenon that continues to persist in the organizational context. More broadly, the research shows that gender is indeed an important issue in the performance appraisal context, both in relation to the backlash effect, and quantity and quality of performance feedback.

The results suggest the experience of social repercussions extend beyond those previously identified, such as likability and hireability (e.g., Rudman, 1998, Williams & Tiedens, 2016), to the more personal experience of performance feedback in the workplace. Of all organizational outcomes linked with the backlash effect (e.g., hireability and salary considerations), promotion considerations may be the most critical to understand the lack of women found in leadership roles today (Bureau of Labor Statistics, 2015). Previous research has shown that the backlash effect is negatively related to promotion considerations (e.g., Heilman, et al, 2004; Rudman, 1998; Rudman & Glick, 2001; Williams & Tiedens, 2016). The current research provides some explanation for these relationships. Women appear to both receive less performance feedback overall, and when they do receive performance feedback it is more likely to be encouragement to act more in line with the female gender role norm or discouragement around being too agentic. Future research should explore these distinctions in performance feedback for more subtle differences, such as systematic differences in specific terms for women (e.g., Snyder, 2014) and presence of constructive developmental feedback that can guide towards career advancement.

The results of this research also provide evidence for two important considerations when conducting gender research: the criterion and the greater social context. Within the performance appraisal context, gender differences have been argued to be non-existent (e.g., Kraiger & Ford,
yet this research shows clear evidence of systematic gender differences in performance feedback. The criterion of research moving forward needs to be carefully considered to detect the gender differences in performance appraisal. For example, overall differences in numerical ratings of competence and performance will not be found; it is in the more subtle distinctions in interactions that meaningful differences were displayed. Second, gender research in the organizational context needs to be conducted in respect to the current social context. Therefore, future studies on the backlash effect need to take into account the current corporate emphasis on treating men and women equally and use a criterion that allow for subtle differences, such as qualitative feedback rather than quantitative ratings. For example, an empirical study that controls for performance with a video of male and female employees conducting the same task followed by informal verbal feedback or written performance feedback would allow for control of agentic behavior and provide a criterion that can detect subtle differences by gender. This would also give the opportunity to empirically investigate differences in formal versus informal performance feedback. A second future study for consideration is investigation of goal text. Most organizations follow an annual goal setting cycle in conjunction with the formal performance appraisal. Replication of the current qualitative study method in a new criterion of employee goal text, including expansion of the backlash effect operationalization to incorporate positive communal feedback, would expand upon the understanding of how the backlash effect may impact professional development. If the goals set forth for men and women are systematically different, that may help explain differential promotion rates between the genders (e.g., Thomas, et al., 2016). It should be expected that research of gender differences in performance management will be continually changing as
societal norms continue to shift. That does not mean gender differences will disappear, but rather morph to account for the current social trends.

**Implications for Practice**

The current research supports the idea that women are no longer up against a glass ceiling, but rather an obstacle course throughout their careers when working towards advancement (Eagly & Carli, 2007). Performance feedback is an important component of professional development (den Hartog, Boselie & Paauwe, 2004). If women at all levels are receiving the backlash effect in written performance appraisals, as evidenced in study one, it is probable that women receive the backlash effect throughout their career. This may provide a continuous obstacle for professional growth and advancement. Concern in regard to women’s performance management is reflected in the results of study two, where the backlash effect appears to be manifesting in shaping behaviors, where women are socially rewarded for communal behaviors. Additionally, supporting outside research (e.g., Thomas, et al., 2016), women report less frequent performance feedback overall. Less frequent performance feedback places women at a disadvantage compared to men as it is performance feedback that helps direct attention towards behaviors that lead to professional development and ultimately growth and promotion (e.g., Denisi, 2000).

Increased instances of the backlash effect for female employees has been tied with salary and promotion considerations (Heilman, et al, 2004; Roth, Purvis & Bobko, 2012; Rudman, 1998; Williams & Tiedens, 2016). If promotions are a vital aspect of moving through the talent pipeline (i.e. the movement of talent upwards in an organization from individual contributor to higher levels of leadership) and performance feedback is arguably essential for professional development (den Hartog, Boselie & Paauwe, 2004), systematically different feedback for male
and female employees may be one contributing factor to a lack of female representation at higher levels of leadership (Martell, Lane, & Emrich, 1996). The backlash effect can change the focus of feedback from actionable developmental objectives to personality criticism (Kluger & DeNisi, 1996, Rudman, 1998, Snyder, 2014), giving recipients of the backlash effect less direction for development. This lack of constructive feedback, combined with generally less feedback overall (Thomas, et al., 2016), may stagnate the development of women in comparison to similarly skilled and experienced male employees. These differences not only harm the individual employee, but the organizations overall as organizations with greater gender diversity have been shown to outperform organizations with less diversity of leadership (Hunt, Layton & Prince, 2015).

Given the importance of performance feedback for employee development (e.g., den Hartog, Boselie & Paauwe, 2004), organizations should consider interventions around the performance management process to address the backlash effect. This can include training in the unconscious processes involved in the backlash effect, partnered with intentional behavioral interventions to ensure transfer of training (e.g., Thomas, et al., 2016). Examples of behavioral interventions can include: check lists for compiling formal performance evaluations to ensure equal quality of feedback for male and female employees, a video or written passage regarding the impacts of unconscious processes presented prior to writing of performance reviews, and evaluation of managers throughout the calendar year in other areas that impact employee development such as meetings of success planning and assignment to advanced training opportunities.
Limitations and Future Research

The results of the current research support further exploration of gender role aligned terms within performance feedback. However, this research does have limitations that should be considered in regard to interpretation of the current results, and guidance of future research. Specifically, further refinement of the operationalization of the backlash effect within performance feedback, development of a self-report measure of the backlash effect encompassing of a broader spectrum of potential workplace manifestations, and a means of controlling for the violation of the gender role norms are warranted.

In line with the backlash effect definition (Rudman, 1998), only agentic terms were used to evaluate the backlash effect. Given the results of study two post-hoc analyses, use of only agentic terms, and only negative valence of feedback may fail to capture the full spectrum of the backlash effect. Inclusion of communal terms, both positive and negative valence feedback, and greater detail of context, such as the phrasing of feedback inclusive of agentic versus communal terms, would strengthen the operationalization of the backlash effect. In the future, the backlash effect, when evaluating written performance feedback, should include communal terms encouraging an increased behavioral alignment and agentic terms encouraging a decreased behavioral alignment. Additionally, the current research does not evaluate what aspect of the employee is targeted in the feedback, specifically whether the feedback is behavioral or personality directed. Snyder (2014) found large differences in how much personality criticism women received compared to men (76% of women vs. 2% of men). Therefore, identifying whether the words used are more closely related to a behavior or a personality trait would provide additional insight into the differences in constructiveness of performance feedback (i.e. whether it provides specific actions for improvement) for women when the backlash effect is
present. Based on Snyder’s (2014) findings, it would be anticipated that feedback inclusive of the backlash effect would be more focused on personality traits than actionable behaviors, adding to the concern around employee development for women. The future research in this area should also consider larger sample sizes to be able to investigate the possibility of a three way interaction of the operationalization of the backlash effect, gender and gender dominance of the job.

Further development of a measure of the backlash effect should build upon the limitations of the current attempt. The broad, term and valence based approach did not prove effective in detecting all possible manifestations of this phenomenon. A more subtle approach will be required to differentiate between the backlash effect and the more general experience of negative performance feedback. The current attempt did not take into account communal terms, nor the positive feedback context, which together in the post-hoc analyses displayed significant differences between men and women. Finally, both studies lack an ability to detect the backlash effect outside of the formal performance feedback context. Inclusion of items around informal feedback instances, including those with peers, subordinates and superiors would further capture the potential spectrum of the phenomenon. For additional consideration, while the performance feedback context is crucial to employee development, the employee experience of the backlash effect may affect women outside of the formal contexts, influencing the broader work environment and therefore women’s overall experience in the workplace.

Importantly, whether a violation of the gender role norm has occurred prior to the backlash effect has not been assessed in this research. Future research should embrace an experimental design to allow for the manipulation of the gender role norm violation and subsequent written performance feedback. Additionally, I have no way to understand extent of
agentic versus communal behaviors in the workplace prior to the performance evaluation. We see in the current research that men are told to be less agentic, but it is not possible to determine if this is because men act more agentically than women in general (i.e. baseline agency may be higher for men). Experimental approaches that account for both of these shortcomings would help provide insight if it is the violation the female gender role norm, specifically, that elicits the observed differences in written performance appraisal.

An additional limitation is the different populations for the two studies. The self-report data and organizational data come from two different populations and therefore do not assess the outcomes for those employees with objective evidence of the backlash effect in performance feedback. Future research would benefit from evaluation of a single population of employees’ performance feedback and self-reported experience with a supervisor and the broader organization. Evidence from an objective measure of the backlash effect in conjunction with the employee perceptual experience would strengthen the support for the relationships between the backlash effect and employee outcomes.

Lastly, while not a limitation, the post-hoc analysis does bring up the question of sensitivity difference in receiving critical feedback. Future research should explore this area, investigating whether the reduced sensitivity reported by women is evidence of a coping mechanisms in the workplace. Although one explanation for the lack of support for the latter hypothesized relationships between the backlash effect and individual outcomes is likely due to the scale issues, an additional area for exploration is the influence of coping mechanisms for women. Although the backlash effect may negatively influence a female employee’s sentiment toward a supervisor or organization theoretically, coping mechanisms may reduce the intensity of these theoretical relationships or lead to different relationships, such as burnout, as a result of
additional energy required to engage in coping mechanisms (e.g., McCarty, Zhao, & Garland, 2007).

In summary, the current research advances our understanding of the intricacies of gender differences in the performance appraisal context. Specifically, it provides empirical evidence of the backlash effect in women’s written performance feedback, establishing qualitative feedback as an important area for further exploration. The results also support an extension of backlash effect research beyond just leaders to women at all levels of the organizational hierarchy. Additional differences between men and women’s experience around performance feedback were also uncovered, including differences in sensitivity to critical performance feedback and differences in quantity of feedback, with men reporting higher levels of both. Most importantly, this research provides evidence that systematic gender bias in performance feedback is an important consideration for both researchers and practitioners as organizations seek to equalize representation of women at all levels of the organizational hierarchy. We will not see women in equal numbers at the top of organizations without addressing inequities in professional development throughout the career trajectory.
References


Ilies, R., De Pater, I. E., & Judge, T. (2007). Differential affective reactions to negative and


analysis. *Journal of Vocational Behavior*, 21(1), 111-121.


Effects on Organizational Effectiveness in Limited-Menu Restaurants. *Academy of Management Journal, 40*(1), 82-111.


Appendix A
Hypothesis and Results Summary

<table>
<thead>
<tr>
<th>Hypothesis</th>
<th>Results</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Hypothesis 1</strong>: Gender dominance of the work role moderates the presence of agentic terms in performance feedback such that, within male-dominated roles, the presence of agentic terms is greater in women’s feedback.</td>
<td>Not Supported</td>
</tr>
<tr>
<td><strong>Hypothesis 2</strong>: Gender moderates the relationship between agentic terms and feedback valence such that the use of agentic terms is more strongly correlated with negatively-phrased feedback for women than it is for men.</td>
<td>Not Supported</td>
</tr>
<tr>
<td><strong>Hypothesis 3A</strong>: Women in both leadership and individual contributor roles will experience the backlash effect when violation of gender role norms occurs</td>
<td>Supported</td>
</tr>
<tr>
<td><strong>Hypothesis 3B</strong>: Women in leadership roles are more likely to experience the backlash effect.</td>
<td>Not Supported</td>
</tr>
<tr>
<td><strong>Hypothesis 4</strong>: There is a negative relationship between receiving the backlash effect and perceptions of supervisor support.</td>
<td>Not Supported</td>
</tr>
<tr>
<td><strong>Hypothesis 5A</strong>: The relationship between presence of the backlash effect and AC is mediated by PSS</td>
<td>Not Supported</td>
</tr>
<tr>
<td><strong>Hypothesis 5B</strong>: The relationship between presence of the backlash effect and turnover intentions is mediated by PSS</td>
<td>Not Supported</td>
</tr>
<tr>
<td><strong>Hypothesis 6</strong>: There is a negative relationship between individuals receiving the backlash effect and AC.</td>
<td>Not Supported</td>
</tr>
<tr>
<td><strong>Hypothesis 7</strong>: There is a positive relationship between individuals receiving the backlash effect and turnover intentions.</td>
<td>Partially Supported</td>
</tr>
</tbody>
</table>
**Appendix B**

**Research Question Summary**

<table>
<thead>
<tr>
<th>Research Question</th>
<th>Results Summary</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>Research Question 1:</em> Can the backlash effect be empirically demonstrated in</td>
<td><em>Empirical evidence of the backlash effect was found in women’s written performance feedback. Women in the organizational feedback. Women in the organizational receive significantly greater negative agentic feedback than men.</em></td>
</tr>
<tr>
<td>written performance appraisal feedback?</td>
<td></td>
</tr>
<tr>
<td><em>Research Question 2:</em> Does empirical support for the backlash effect extend to</td>
<td><em>Within the organizational data, the evidence of the backlash effect was found for women in both leader and individual contributor roles, and the amount of negative agentic feedback was not significantly different by level, suggesting that women at all levels of the hierarchy receive the backlash effect.</em></td>
</tr>
<tr>
<td>women in individual contributor roles?</td>
<td></td>
</tr>
<tr>
<td><em>Research Question 3:</em> Does the backlash effect negatively impact individual level</td>
<td><em>Evidence of partial support for a relationship between the backlash effect and turnover intentions was found. No other hypothesized relationships were supported in this data.</em></td>
</tr>
<tr>
<td>employee outcomes of PSS, AC, turnover intentions?</td>
<td></td>
</tr>
</tbody>
</table>
Appendix C

Pilot Study Introduction

**Purpose and Procedures:** This is a research study to investigate the relationship between an individual’s experiences in the workplace and sentiment toward supervisors and organizations. You will be asked to complete a survey which will require you to answer questions about your experiences and opinions. The survey will take approximately 20 minutes. Please answer as honestly as possible, as your honest responses are integral to the quality of this research.

**Voluntary Participation and Incentive:** Your participation in this study is completely voluntary; you are free to withdraw from the study at any time without penalty. If you choose not to take part, there will be no penalty and you will still receive credit for the time completed. You may leave blank any questions or refrain from completing any tasks that make you uncomfortable. Your participation will last approximately 15-20 minutes.

**Possible Risks and Benefits:** No known risks are associated with participation in this study. Your participation may benefit others, as the more we understand about psychological processes, the better able we will be to apply this knowledge in beneficial ways.

**Confidentiality:** Do not include your name on any of your responses. Your responses will be confidential. All your responses will be identified by a code number and your name will not be associated with this code number. All information obtained in this study is strictly confidential unless disclosure is required by law. In addition, the Institutional Review Board, the sponsor of the study (e.g., NIH, FDA, etc.) and University or government officials responsible for monitoring this study may inspect these records.

**Contact information:** If you have questions about the study, please contact Lindsay Ciancetta at lciancetta@albany.edu (518.429.6296) or Sylvia Roch, Ph.D. at sroch@albany.edu, in the Department of Psychology. Research at the University of Albany involving human participants is carried out under the oversight of the Institutional Review Board (IRB). This research has been reviewed and approved by the IRB. If you have any questions concerning your rights as a research subject or if you wish to report any concerns about the study, you may contact University at Albany Office of Regulatory & Research Compliance at 1-866-857-5459 or hsconcerns@albany.edu
Appendix D

Study 2 Introduction

**Purpose and Procedures:** This is a research study to investigate the relationship between an individual’s experiences in the workplace and sentiment toward supervisors and organizations. You will be asked to complete a survey which will require you to answer questions about your experiences and opinions. The survey will take approximately 15 minutes. Please answer as honestly as possible, as your honest responses are integral to the quality of this research.

**Voluntary Participation and Incentive:** Your participation in this study is completely voluntary; you are free to withdraw from the study at any time without penalty. If you choose not to take part, there will be no penalty and you will still receive credit for the time completed. You may leave blank any questions or refrain from completing any tasks that make you uncomfortable. Your participation will be worth $.50 and last approximately 15 - 20 minutes.

**Possible Risks and Benefits:** No known risks are associated with participation in this study. Your participation may benefit others, as the more we understand about psychological processes, the better able we will be to apply this knowledge in beneficial ways.

**Confidentiality:** Do not include your name on any of your responses. Your responses will be confidential. All your responses will be identified by a code number and your name will not be associated with this code number. All information obtained in this study is strictly confidential unless disclosure is required by law. In addition, the Institutional Review Board, the sponsor of the study (e.g., NIH, FDA, etc.) and University or government officials responsible for monitoring this study may inspect these records.

**Contact information:** If you have questions about the study, please contact Lindsay Ciancetta at lciancetta@albany.edu (518.429.6296) or Sylvia Roch, Ph.D. at sroch@albany.edu, in the Department of Psychology. Research at the University of Albany involving human participants is carried out under the oversight of the Institutional Review Board (IRB). This research has been reviewed and approved by the IRB. If you have any questions concerning your rights as a research subject or if you wish to report any concerns about the study, you may contact University at Albany Office of Regulatory & Research Compliance at 1-866-857-5459 or hsconcerns@albany.edu
Appendix E

Negative Agentic Feedback Measure

“Please read the entire list of words below and indicate if your supervisor is likely to use that word when CRITIQUING your work or providing NEGATIVE feedback. For words likely to be used, please indicate the frequency of use.”

<table>
<thead>
<tr>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
</tr>
</thead>
<tbody>
<tr>
<td>Does not use</td>
<td>Infrequently</td>
<td>Sometimes</td>
<td>Regularly</td>
<td>Frequently</td>
<td>Very Frequently</td>
</tr>
</tbody>
</table>

1. Accepting 35. Supportive
2. Active 36. Tentative
3. Aggressive 37. Worry
4. Agreeable
5. Ambitious
6. Assertive
7. Careful
8. Caring
9. Communal
10. Competent
11. Confident
12. Considerate
13. Controlling
14. Cooperative
15. Daring
16. Direct
17. Dominant
18. Dynamic
19. Emotional
20. Forceful
21. Gentle
22. Helpful
23. Independent
24. Influential
25. Kind
26. Lead
27. Mastery
28. Nurturing
29. Organized
30. Powerful
31. Reliable
32. Responsive
33. Sensitive
34. Submissive
Appendix F
Incivility Measure

“During the PAST FIVE YEARS while employed at your current organization or a previous one, have you been in a situation where any of your superiors or coworkers: “

<table>
<thead>
<tr>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Never</td>
<td>Sometimes</td>
<td>Often</td>
<td>Most of the Time</td>
</tr>
</tbody>
</table>

1. Put you down or were condescending to you?
2. Paid little attention to your statement or showed little interest in your opinion
3. Made demeaning or derogatory remarks about you?
4. Addressed you in unprofessional terms, either publicly or privately?
5. Ignored or excluded you from professional camaraderie?
6. Doubted your judgment on a matter over which you have responsibility?
7. Made unwanted attempts to draw you into a discussion of personal matters?
Appendix G

Full Range Interpersonal Justice Continuum

“The questions below refer to the interactions you have with your current supervisor as decision-making procedures (about pay, rewards, evaluations, promotions and so forth) are implemented. To what extent:”

<table>
<thead>
<tr>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
</tr>
</thead>
<tbody>
<tr>
<td>To a extremely small extent</td>
<td>To a very small extent</td>
<td>To a small extent</td>
<td>To a moderate extent</td>
<td>To a large extent</td>
<td>To a very large extent</td>
<td>To an extremely large extent</td>
</tr>
</tbody>
</table>

1. Does he/she treat you in a polite manner?
2. Does he/she treat you in a rude manner? (R)
3. Does he/she treat you with dignity?
4. Does he/she treat you in a derogatory manner? (R)
5. Does he/she treat you with respect?
6. Does he/she treat you with disregard? (R)
7. Does he/she refrain from improper remarks or comments?
8. Does he/she use insulting remarks or comments? (R)
Appendix H

Full-Range Distributive Justice Continuum

“‘The questions below refer to the outcomes you receive from your supervisor, such as pay, rewards, evaluations, promotions, and so forth. To what extent:’

<table>
<thead>
<tr>
<th></th>
<th>1: To a extremely small extent</th>
<th>2: To a very small extent</th>
<th>3: To a small extent</th>
<th>4: To a moderate extent</th>
<th>5: To a large extent</th>
<th>6: To a very large extent</th>
<th>7: To an extremely large extent</th>
</tr>
</thead>
</table>

1. Do those outcomes reflect the effort you have put into your work?
2. Are those outcomes inconsistent with the effort you have put into your work? (R)
3. Are those outcomes appropriate for the work you have completed?
4. Are those outcomes insufficient, given the work you have completed? (R)
5. Do those outcomes reflect what you have contributed to your work?
6. Do those outcomes contradict what you have contributed to your work? (R)
7. Are those outcomes justified, given your performance?
8. Are those outcomes inappropriate, given your performance? (R)
Appendix I

Full-Range Procedural Justice Continuum

“The questions below refer to the procedures your supervisor uses to make decisions about pay, rewards, evaluations, promotions, and so forth. To what extent:”

<table>
<thead>
<tr>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
</tr>
</thead>
<tbody>
<tr>
<td>To a extremely small extent</td>
<td>To a very small extent</td>
<td>To a small extent</td>
<td>To a moderate extent</td>
<td>To a large extent</td>
<td>To a very large extent</td>
<td>To an extremely large extent</td>
</tr>
</tbody>
</table>

1. Are you able to express your views during those procedures?
2. Do your views go unheard during those procedures? (R)
3. Can you influence the decisions arrived at by those procedures?
4. Do the decisions arrived at by those procedures lack your input? (R)
5. Are those procedures applied consistently?
6. Are those procedures applied unevenly? (R)
7. Are those procedures free of bias?
8. Are those procedures one-sided? (R)
9. Are those procedures based on accurate information?
10. Are those procedures based on faulty information? (R)
11. Are you able to appeal the decisions arrived at by those procedures?
12. Are the decisions arrived at by those procedures “set in stone”? (R)
13. Do those procedures uphold ethical and moral standards?
14. Are those procedures unprincipled or wrong? (R)
Appendix J

Artistic Cultural Appreciation and Curiosity

“Please answer the following questions about your recent behavior to the best of your ability.”

<table>
<thead>
<tr>
<th>Question</th>
<th>Response 1</th>
<th>Response 2</th>
<th>Response 3</th>
<th>Response 4</th>
<th>Response 5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Over the past year how many art exhibitions have you attended?</td>
<td>None</td>
<td>One</td>
<td>Two</td>
<td>Three or Four</td>
<td>Five or More</td>
</tr>
<tr>
<td>How long have you played a musical instrument regularly?</td>
<td>I have never played an instrument regularly</td>
<td>Less than one year</td>
<td>More than one year but less than two</td>
<td>More than two years but less than 5</td>
<td>More than 5 years</td>
</tr>
<tr>
<td>In the last year, how many times did you go to a play, musical, or other live theater performance?</td>
<td>Never</td>
<td>Once</td>
<td>Twice</td>
<td>3 to 5 times</td>
<td>More than 5 times</td>
</tr>
<tr>
<td>How many times each year do you visit museums, art galleries, or exhibitions?</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4 or more</td>
</tr>
<tr>
<td>To what extent do you value art and culture, for example music and paintings?</td>
<td>A great deal</td>
<td>A lot</td>
<td>Somewhat</td>
<td>A little</td>
<td>Not very much</td>
</tr>
<tr>
<td>On how many occasions in the past year have you attended a cultural event (some event featuring music, art, or food from a particular culture)?</td>
<td>Never</td>
<td>Once</td>
<td>Twice</td>
<td>Three or Four times</td>
<td>Five times or more</td>
</tr>
<tr>
<td>Compared with others your age, how much do you know about art (e.g., types of painting, sculpture, and music) both historically and across cultures?</td>
<td>Much more than others</td>
<td>Somewhat more than others</td>
<td>About the same as others</td>
<td>Somewhat less than others</td>
<td>Much less than others</td>
</tr>
<tr>
<td>Compared with others your age, how much do you feel you appreciate art and culture?</td>
<td>More than most people</td>
<td>More than average</td>
<td>About average</td>
<td>Less than average</td>
<td>Less than most people</td>
</tr>
<tr>
<td>During the last two years, how often did you participate in activities (not required by a class) aimed at teaching you about art or culture?</td>
<td>Never</td>
<td>Once or twice</td>
<td>Between three and five times</td>
<td>Between six and ten times</td>
<td>More than ten times</td>
</tr>
<tr>
<td>In the past year, how often have you made use of cultural resources such as local museums, art galleries, and plays?</td>
<td>Very often</td>
<td>Often</td>
<td>Sometimes</td>
<td>Rarely</td>
<td>Never</td>
</tr>
</tbody>
</table>
Appendix K
Multicultural Tolerance and Appreciation

“Please answer the following questions about your recent behavior to the best of your ability.”

<table>
<thead>
<tr>
<th>Question</th>
<th>Response 1</th>
<th>Response 2</th>
<th>Response 3</th>
<th>Response 4</th>
<th>Response 5</th>
</tr>
</thead>
<tbody>
<tr>
<td>How many times in the last two years have you chosen classes, projects, or assignments simply to learn something new about different groups, cultures, or customs?</td>
<td>Never</td>
<td>Once</td>
<td>Twice</td>
<td>Three or Four</td>
<td>Five or More</td>
</tr>
<tr>
<td>How many times in the last year have you attended cultural events, even when you weren't certain about whether you would like them?</td>
<td>Never</td>
<td>Once</td>
<td>Twice</td>
<td>Three of Four</td>
<td>Five or More</td>
</tr>
<tr>
<td>How much have you tried to understand people of different cultural beliefs?</td>
<td>I have never tried</td>
<td>I don’t try very often</td>
<td>Sometimes I try</td>
<td>I often try</td>
<td>I have tried very hard</td>
</tr>
<tr>
<td>How well do you tend to get along with people from different cultural backgrounds other than your own?</td>
<td>Very Well</td>
<td>Pretty Well</td>
<td>Sometimes Well</td>
<td>Not Too Well</td>
<td>Not Well at All</td>
</tr>
<tr>
<td>How important is it to you to talk with people from different cultures and learn more about them?</td>
<td>Extremely important</td>
<td>Very important</td>
<td>Important</td>
<td>Not very important</td>
<td>Not at all important</td>
</tr>
<tr>
<td>During the past year, how many times out of self-interest have you searched for information about other regions, countries, or cultures (at the library or on the Internet)?</td>
<td>0</td>
<td>One to Three</td>
<td>Four to Seven</td>
<td>Eight to Twelve</td>
<td>More than Twelve</td>
</tr>
<tr>
<td>In the last six months, how many times have you tried to talk to someone from a different country or culture just to learn about their background?</td>
<td>Never</td>
<td>Once</td>
<td>Twice</td>
<td>Three or four times</td>
<td>Five times or more</td>
</tr>
<tr>
<td>How would you feel about an opportunity to live with someone that you consider to be very different from yourself?</td>
<td>I would become excited and consider it to be a great opportunity</td>
<td>I would not have any hesitation about living with this person</td>
<td>I would be a little hesitant but willing to work through any differences</td>
<td>I would be hesitant to live with someone who is very different than I</td>
<td></td>
</tr>
<tr>
<td>During the past year, how many times have you gone to an event where the purpose was to expose people to a new culture?</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>3 or more</td>
</tr>
<tr>
<td>During the past year, how often did you try different ethnic foods?</td>
<td>Never</td>
<td>Once or twice</td>
<td>Between three and five times</td>
<td>Between five and ten times</td>
<td>More than 10 times</td>
</tr>
</tbody>
</table>
Appendix L
Demographics

1. Gender
   a. Male
   b. Female
   c. Other
   d. Prefer not to answer
2. Ethnicity
   a. Asian
   b. American Indian or Alaskan Native
   c. Black or African American
   d. Hispanic/Latino
   e. Native Hawaiian or Pacific Islander
   f. Two or more races
   g. White/Caucasian
3. Age (in years)
   a. Fill in option
4. Position tenure (in years)
   a. Fill in option
5. Position level
   a. Individual contributor (i.e. no supervisory responsibilities)
   b. Manager
   c. Director
   d. VP and above
6. Would you estimate there are more male or female employees in your company?
   a. More male employees
   b. More female employees
   c. About equal male and female employees
7. Career field
   a. Agriculture
   b. Architecture and Engineering
   c. Arts & Entertainment
   d. Building and Grounds Maintenance
   e. Business and Financial Operations
   f. Community and Social Services
   g. Computer and Mathematical
   h. Construction
   i. Education
   j. Food Preparation and Serving
   k. Human Resources
   l. Lawyer
   m. Life and Physical Sciences
   n. Logistics
   o. Marketing
   p. Medical – Physicians
   q. Medical – Nurse
Appendix L - continued

Demographics

r. Office and Administrative Support
s. Personal Care Services
t. Protective Services Occupations
u. Sales
v. Transportation

8. Is your supervisor male or female?”
   a. Male
   b. Female

9. Do you have supervisory responsibilities in your job role?
   a. Yes
   b. No
Appendix M

Perceived Supervisor Support

“Please express your level of agreement with the following statements based upon your current manager or supervisor.”

<table>
<thead>
<tr>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strongly Disagree</td>
<td>Disagree</td>
<td>Somewhat Disagree</td>
<td>Neither Agree nor Disagree</td>
<td>Somewhat Agree</td>
<td>Agree</td>
<td>Strongly Agree</td>
</tr>
</tbody>
</table>

1. My supervisor values my contribution to the organization’s well-being
2. My supervisor strongly considers my goals and values
3. My supervisor really cares about my well-being
4. My supervisor is willing to help me when I need a special favor
5. My supervisor shows very little concern for me (R)
6. My supervisor takes pride in my accomplishments at work
Appendix N

Perceived Organizational Support

“Please express your level of agreement with the following statements based upon your current organization.”

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Strongly Disagree</td>
<td>Disagree</td>
<td>Somewhat Disagree</td>
<td>Neither Agree nor Disagree</td>
<td>Somewhat Agree</td>
<td>Agree</td>
</tr>
</tbody>
</table>

1. My organization values my contribution to the organization’s well-being
2. My organization strongly considers my goals and values
3. My organization really cares about my well-being
4. My organization is willing to help me when I need a special favor
5. My organization shows very little concern for me (R)
6. My organization takes pride in my accomplishments at work
Appendix O

Affective Organizational Commitment

“Please express your level of agreement with the following statements based upon your current organization.”

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. I</td>
<td>Strongly</td>
<td>Disagree</td>
<td>Disagree</td>
<td>Neither</td>
<td>Agree</td>
<td>Agree</td>
<td>Strongly</td>
</tr>
<tr>
<td>2. I</td>
<td></td>
<td></td>
<td></td>
<td>Agree</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. I</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Agree</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. I</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Strongly</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. I</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. I</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7. I</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

1. I would be very happy to spend the rest of my career with this organization
2. I enjoy discussing my organization with people outside it
3. I really feel as if this organization's problems are my own
4. I think that I could easily become as attached to another organization as I am to this one (R)
5. I do not feel like 'part of the family' at my organization (R)
6. I do not feel 'emotionally attached' to this organization (R)
7. This organization has a great deal of personal meaning for me
8. I do not feel a strong sense of belonging to my organization (R)
Appendix P

Turnover Intentions

“Please express your level of agreement to the following statements”

<table>
<thead>
<tr>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strongly Disagree</td>
<td>Disagree</td>
<td>Somewhat Disagree</td>
<td>Neither Agree nor Disagree</td>
<td>Somewhat Agree</td>
<td>Agree</td>
<td>Strongly Agree</td>
</tr>
</tbody>
</table>

1. I am actively looking for a job outside my current organization
2. As soon as I can find a better job, I’ll leave my current organization
3. I am seriously thinking about quitting my job
4. I often think about quitting my job at my current organization
5. I think I will be working at my current organization five years from now (R)
Appendix Q

Affective Reactions to Negative Feedback

“This scale consists of a number of words that describe different feelings and emotions. Read each item and then mark the appropriate answer in the space next to that word. Indicate to what extent you have felt this way when receiving constructive or negative feedback from your current supervisor.”

<table>
<thead>
<tr>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Very slightly or not at all</td>
<td>A little</td>
<td>Moderately</td>
<td>Quite a bit</td>
<td>Extremely</td>
</tr>
</tbody>
</table>

1. interested
2. distressed
3. excited
4. upset
5. strong
6. guilty
7. scared
8. hostile
9. enthusiastic
10. proud
11. irritable
12. alert
13. ashamed
14. inspired
15. nervous
16. determined
17. attentive
18. jittery
19. active
20. afraid
Appendix R
Women as Managers Scale (WAMS)

“The following items are an attempt to assess the attitudes people have about women in business. The best answer to each statement is your personal opinion. The statements cover many different and opposing points of view; you may find yourself agreeing strongly with some of the statements, disagreeing just as strongly with others, and perhaps uncertain about others. Whether you agree or disagree with any statement; you can be sure that many people feel the same way you do.”

“Using the numbers from 1 to 7 on the rating scale to the right, mark your personal opinion about each statement in the blank that immediately precedes it. Remember, give your personal opinion according to how much you agree or disagree with each item. Please respond to all 21 items. Thank you.”

<p>| | | | | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
</tr>
<tr>
<td>Strongly Disagree</td>
<td>Disagree</td>
<td>Somewhat Disagree</td>
<td>Neither Agree nor Disagree</td>
<td>Somewhat Agree</td>
<td>Agree</td>
<td>Strongly Agree</td>
</tr>
</tbody>
</table>

1. It is less desirable for women than men to have a job that requires responsibility.
2. Women have the objectivity required to evaluate business situations properly.
3. Challenging work is more important to men than it is to women.
4. Men and women should be given equal opportunity for participation in management training programs.
5. Women have the capability to acquire the necessary skills to be successful managers.
6. On the average, women managers are less capable of contributing to an organization's overall goals than are men.
7. It is not acceptable for women to assume leadership roles as often as men.
8. The business community should someday accept women in key managerial positions.
9. Society should regard work by female managers as valuable as work by male managers.
10. It is acceptable for women to compete with men for top executive positions.
11. The possibility of pregnancy does not make women less desirable employees than men.

151
Appendix R - continued

Women as Managers Scale (WAMS)

12. Women would no more allow their emotions to influence their managerial behavior than would men.

13. Problems associated with menstruation should not make women less desirable than men as employees.

14. To be a successful executive, a woman does not have to sacrifice some of her femininity.

15. On the average, a woman who stays at home all the time with her children is a better mother than a woman who works outside the home at least half time.

16. Women are less capable of learning mathematical and mechanical skills than are men.

17. Women are not ambitious enough to be successful in the business world.

18. Women cannot be assertive in business situations that demand it.

19. Women possess the self-confidence required of a good leader.

20. Women are not competitive enough to be successful in the business world.

21. Women cannot be aggressive in business situations that demand it.

"Items 1, 3, 6, 7, 15, 16, 17, 18, 20, and 21 should be reverse scored so that a high scale score is associated with a favorable attitude toward women as managers."