

THE TROUBLE WITH LEANING IN: ELIMINATING
BACKLASH FOR WOMEN IN BUSINESS

by

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DEDICATION

To my mother, Susan Kettlewell, for her never-ending love, unwavering support, and constant presence. And to my friends and family who continue to be my greatest cheerleaders but mostly to my brother, 'Mad' Max Matsumoto, who cheers louder than anyone else in the world.

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ABSTRACT

The current project set out to test two interventions intended to interrupt the Fundamental Attribution Error (FAE; Ross 1977) in order to eliminate the backlash (i.e., social and economical penalties) women face when they act gender incongruently. The first intervention was designed to direct participants' attentional focus to the male dominated situation the target woman was working. The second intervention was designed to motivate participants to form more accurate impressions of the target woman. It was predicted that both interventions would eliminate attributional errors and result in more favorable impressions of the target woman in comparison to the female control condition. Additionally, it was expected that when participants were introduced to either intervention, they would form equally favorable impressions of the target woman and man. To test hypotheses, 141 participants viewed a brief virtual webinar where 11 executives from a supposedly large aircraft company spoke about upcoming employee reviews. One of the executives served as the target (AVP of Finance) and in three of the conditions (Accuracy Goal Intervention, Situation Focused Intervention, and Woman Lean In Only) was given a female name and in the fourth (Man Lean In Only) a male name. The intervention was introduced before participants viewed the webinar. Following the webinar participants first completed a free recall questionnaire and answered a number of awareness check questions. Finally, participants completed a battery of backlash measures and demographics. An issue with ordering effects was revealed and alternative analyses were conducted with the free recall items. Results revealed that the Situation Focused Intervention and the two control conditions led to the most favorable impressions of the AVP of Finance. Surprisingly, the accuracy goal intervention led to the least positive impressions of the AVP of Finance in comparison to the other conditions. Results should be interpreted with caution, as the free recall items were not designed to test for backlash.

CHAPTER ONE – LEANING IN AND BACKLASH

Introduction

*“We move closer to the larger goal of true equality with each woman who leans in.”
(Sandberg, 2013, p. 11)*

In her popular book “Lean In: Women, Work, and the Will to Lead” Sheryl Sandberg, the Chief Operations Officer (COO) of Facebook, argues that the way to increase female representation within corporate America is for women to make themselves a part of the conversation by taking the initiative to “lean in” at the metaphorical conference table. Sandberg explains, “women hold themselves back, literally choosing to watch from the sidelines” and that to interrupt this women need to “sit at the table” (Sandberg, 2013, pp. 28, 38). According to Sandberg, to lean in means to act against natural tendencies for women, and value more masculine behaviors such as aggression and self-promotion in order to progress and succeed in the corporate world. Although it is important to eliminate the gender disparity in the business sector, with fewer than 15% of women in top business leadership positions (Catalyst, 2013) and 5% of Fortune 500 companies employing female CEOs (Peters, 2014), the solution suggested in “Lean In” may not be the best way to improve gender diversity. When women assert themselves, or lean in as Sandberg recommends, there may be unintended consequences such as social rejection or hostility that ironically limit women’s ability to advance within the ranks of a male-dominated occupation (Brescoll, 2011; Heilman & Chen, 2005; Heilman et al, 2004; Rudman & Glick 1999). Thus, the overall aim of this project is to

offer a theoretically informed investigation of possible interventions that improve the perception of women who engage in “lean in” behaviors within a business setting.

Sandburg suggests that in order to succeed in business, women must lean in. However, leaning in is a stereotypically masculine behavior that is inconsistent with gender stereotypes and norms for how women are expected to behave (Rudman & Glick, 2001). To act masculine includes agentic qualities such as being independent, assertive, and competent, whereas to act feminine includes communal qualities such as being friendly, selfless, concerned with others, and emotionally expressive (Eagly, 1992). A woman who leans in, then, is acting in a masculine manner and thus is gender incongruent. Research has shown that women who act in a gender incongruent manner are liked less in comparison to their male counterparts who engage in the same behavior (Brescoll, 2011; Heilman, Block, Martell, & Simon, 1989; Phelan, Moss-Racusin, & Rudman, 2008; Rudman, 1998). This negative reaction to a woman acting gender incongruently is referred to as “backlash” (Rudman, 1998). From blatant sexism (Glick & Fiske, 2001), to unconscious bias (Phelan & Rudman, 2010), to attributional errors (Gilbert & Malone, 1995) there are many possible reasons *why* women who act gender incongruently may experience backlash. But the question remains: how can a woman lean in without experiencing backlash? The purpose of this project is to explore possibilities for reducing the backlash for businesswomen who lean in by drawing from classic social psychological research (fundamental attribution error literature; Ross, 1977) to develop and test a situational intervention.

Backlash Toward Gender Incongruent Women

Past research has shown that women who act in a gender incongruent manner are penalized, both socially and economically, for their behavior (Rudman, 1998). Backlash occurs when male and female observers feel a woman who acts gender incongruently has a personality flaw. For example, female managers, who were described as successful (a trait that is considered to be masculine) are seen by other people as more hostile than their male counterparts (Heilman, Block, & Martell, 1995) and are thought to be bitter and deceitful (Deal & Stevenson, 1998). Such negative personality attributions of women who act gender incongruently have social implications such as being perceived as less likeable and less socially competent than identically qualified men (Rudman & Glick, 2001). In this study, participants were given one of two job descriptions: masculine (i.e., requiring technically skilled, ambitious, and independent individuals who thrive under pressure) or feminine (i.e., requiring an individual who is helpful, sensitive to the needs of customers, and a good listener, in addition to the masculine qualities listed above) for a computer lab manager position. Then, participants were given a “life philosophy” essay, which presented the job applicant as agentic (i.e., “basically, there are two kinds of people, winners and losers. My goal is to be a winner, the type of person who gets to be in charge and make the decisions”) or what the authors called “androgynous” (i.e., “to me, life is about being connected to other people...If I can help someone out, I feel a real sense of accomplishment”). Candidate gender was also orthogonally manipulated. Participants assessed the candidate’s competence, sociability, and hirability. Results showed agentic women were rated as less likable and less skilled than an identical male

applicant for either job description. Even more, the discrimination the women experienced as a result of gender incongruent behavior was due to being perceived by both male and female participants to be “not nice”. The agentic women were considered less hireable than their male counterparts but only when the job description was feminized. In contrast, the sociability and hirability ratings of male applicants remained unchanged as a result of agentic behavior regardless of the job description. These results suggest that when a woman leans in for a feminine job, she will be viewed as less likable and less social, which are negative personality attributions. And most importantly, agentic women are also viewed as less hireable because of these (assumed) negative personality traits.

Women who act in a gender incongruent manner are not only liked less but are also less preferred as bosses in comparison to identically qualified male managers. For example, Heilman and Okimoto (2007) found that successful women in male dominated fields are penalized for their success. The researchers asked participants to read a packet about several employees who had recently been hired for the same position in different divisions of a large organization. The chief executive officer (CEO) of the company introduced each of the employees in a memo that provided background information (e.g., education history, including where they earned their bachelor’s degrees). Two of the three employees (1 male and 1 female) served as the targets and their memos depicted them as very successful at their last place of employment. Additionally, the CEO’s memo manipulated target gender so that the male or female target was depicted as either communal (“She [he] emphasizes the importance of having a supportive work environment and has been commended for her [his] efforts to promote a positive

community”) or positive noncommunal (“She [he] has been known to reward individual contributions and has worked hard to maximize her [his] employees’ creativity”).

Participants rated the employees on likability, boss desirability, and perceived interpersonal hostility. Results supported previous findings that gender incongruent women experienced more backlash, regardless of participant gender; however, when women were portrayed as communal backlash was attenuated. This suggests that a woman’s communality may provide protection against backlash.

Backlash occurs when women act gender incongruently, however, it can also occur as a result of a woman’s success. Research by Heilman et al. (2004) found that women are penalized for their success in areas that are traditionally masculine and that these penalties often take the shape of negative personality attributions. For example, when participants were asked to give their opinions about various employees in the same position within an organization results showed that women were perceived as less competent and less achievement oriented than men in the same position, regardless of the participant’s gender. When the employee’s success was made explicit, the gender differences in competency were eliminated. However, women still experienced backlash through ratings as being less likeable and more hostile than men. In another experiment, successful women in traditionally masculine environments were liked less, and being liked less negatively affected women’s career aspirations such that they were overlooked when promotions and rewards are offered. Importantly, these findings did not differ depending on participant gender.

Women are not only penalized for their success or independence but also for much subtler gender incongruent behaviors like how much they talk during an interaction. Brescoll (2011) found a strong positive relationship between power and talkativeness for men but no such relationship for women. One possible explanation for this lack of relationship for women is because women experience backlash when they appear to talk too much. To examine this possibility, the researcher presented participants with a brief biography of a male or female CEO who was depicted as either talking more or less than the average CEO in a business interaction (i.e., “compared to other CEOs, Mr. (Ms.) Morgan talks much more (less) than others in power”). After reading the biographies, participants rated the CEOs on their suitability for leadership as well as their competence. Ratings for both suitability for leadership and overall competence were lowest for the female CEO who was portrayed as talking more than average. In fact, when the CEO was female and was high in volubility she was rated less favorably in comparison to the female CEO who was low in volubility as well as male CEO who was high volubility. Consistent with previous backlash literature (Heilman et al, 2004; Heilman & Okimoto, 2007; Rudman & Glick, 2001), these results did not differ dependent on participant gender. That is, both male and female participants penalized the woman to the same extent for her gender incongruent behavior.

Research has found that women in male dominated fields experience backlash when they act in a gender incongruent manner because they are perceived to be lacking communal attributes such as warmth (Eagly & Karau 2002; Heilman & Okimoto, 2007; Rudman & Glick, 2001) or because they are considered to be too dominant (Rudman,

Moss-Racusin, Phelan, & Nauts, 2012). Along the same lines, there is evidence that self-sexualizing women are penalized because they challenge the gender hierarchy and are considered to hold more power (Infanger, Rudman, & Sczesny, 2014). Specifically, when women self-sexualize (i.e., dress provocatively and use sex as a tool), they are seen as empowered since sex is considered to be a woman's source of power (Erchull & Liss, 2013; Smolak & Muren, 2011) and women are rewarded for their "feminine charms" both in media and at work (Smolak & Muren, 2011; Watkins, Smith, & Aquino, 2013). When reading experimentally created dating profiles, Infanger, Rudman, and Sczesny (2014) found that participants rated the self-sexualizing women as less likeable and this effect persisted regardless of participant gender. Specifically, the woman who expressed her preference for wearing sexy clothing and for using her feminine charms was less likeable in comparison to the woman who preferred wearing comfortable and causal clothing and did not like to use her feminine charms. However, the sexualized and non-sexualized profiles did not significantly differ in terms of participants' ratings of communality. Specifically, the self-sexualizing woman was considered more dominant and thus penalized for interrupting the gender status quo, similar to women who are perceived to lack communal attributes. Considering that to *lean in* means to act in an agentic manner, women who lean in may also be perceived as lacking communal attributes.

The Fundamental Attribution Error

Why might people dislike a woman who acts in a masculine way? Personality or dispositional explanations for a behavior overlook that a woman might be acting a certain

way because of the situation she is in. The fundamental attributional error (FAE) occurs when people make dispositional assumptions about individuals based on their behavior without considering the situational factors that may have exerted an influence. Research on the FAE originated with Ross (1977) who was the first to detail this type of cognitive bias where observers underestimated the situational influence and overestimated the dispositional influence of an individual's behavior in any given situation. In a classic demonstration of the FAE, participants were randomly assigned to either be a questioner or a contestant in a quiz game (Ross, Amabile, & Steinmetz, 1977). Questioners were tasked with composing 10 general knowledge questions that they considered to be "challenging but not impossible" for the contestant to answer. On average, contestants were only able to answer 4 out of 10 questions and they tended to rate themselves as less knowledgeable than their questioner. However, had the roles been reversed and the contestants were able to create questions based on their own knowledge, they may have rated themselves as more knowledgeable. Specifically, contestants attributed their low scores in the quiz game to the questioners' more extensive knowledge base rather than the difficult situation that they found themselves in.

Not only is there a tendency to overestimate the dispositional influence on a behavior, there is also a tendency to assume underlying dispositions are reflected in an individual's behavior (Jones & Harris, 1967). To test this, participants were presented with essays that were either pro- or anti-Fidel Castro. Then they were told that the essayist was allowed to choose which position they took when writing the essays or they were told that the attitudinal position was assigned to the writer. Participants were then

tasked with deciphering the writer's true opinion. In line with attribution theory, participants reported strong pro- or anti-Castro positions when the essayist had chosen their perspective but also, to a lesser extent, in the no choice condition. This finding is particularly interesting considering that participants were aware that the essayist had no choice when it came to their essay topics yet participants still assumed that the essayist's opinion aligned with the essay topic.

Individuals typically focus on the situation when explaining motives for their own behaviors but attribute other people's behaviors to dispositions. For example, Corr and Jackson (2001) examined the fundamental attribution error in relation to sexual harassment in the workplace. Male and female participants were asked to rate the seriousness of gender harassment and unwanted sexual advances in the workplace for bosses who were either liked or disliked. Female participants read questionnaires written from a first person perspective whereas male participants completed questionnaires written from a third person perspective. Both male and female ratings for the seriousness of unwanted sexual attention were greater for disliked bosses than liked bosses. The seriousness of gender harassment was greater for disliked bosses than liked bosses, but male participants took a more lenient view than female participants. Thus when a woman acts masculine by leaning in, she may be erroneously considered to have a personality flaw (e.g., difficult to work with, coldhearted, a bitch), which may be a form of the fundamental attribution error.

The consequences of stereotype inconsistent behavior also extend beyond personality attributional errors, such as when women receive fewer resources when they

act masculine (Amanatullah and Morris, 2010). In this study participants engaged in a computerized salary negotiation after being randomly assigned to either self-advocate (a traditionally masculine behavior) or other-advocate (a traditionally feminine behavior) with a hiring manager. Results showed that allocation of fewer resources was related to women attempting to act less masculine in this gender incongruent setting: when self-advocating they acted less assertive and made larger concessions by requesting lower salaries than male negotiators or women who other-advocated. This suggests that when negotiating salaries, women negotiate for social acceptance, likely because they (rightfully) worry about backlash (see also Smith & Huntoon, 2013). In the same vein, previous research has found that male supervisors review women's performance less favorably particularly when they have greater accomplishments (operationalized as educational level) and when the male supervisors are higher in social dominance orientation (Inesi & Cable, 2014).

A common theme among these studies is that participants failed to take situational aspects into account when trying to understand motives for behavior and then erroneously attribute behaviors to dispositions. Gilbert and Malone (1995) suggest that observers are prone to make attributional errors because they are not always aware of situational influences. Even when the observer does recognize the situational constraints, it does not mean that they take them into account when making an attribution. In fact, observers typically draw automatic conclusions about an individual's disposition based on behavior and independent of the situation. These automatic conclusions can be corrected provided there are enough cognitive resources available but fail to be altered with respect to

situational constraints if the observer's mental capacity is strained and they are unable to devote careful thought to their attributions (Gilbert, 1989). This suggests that with effort, initial automatic impressions can be altered in order to create a more accurate impression of the target individual.

Disrupting the FAE to Avoid Backlash

From this framework it is possible to consider ways to disrupt the FAE so women do not experience backlash when they act in a gender incongruent way. To disrupt the FAE, it is necessary to draw attention to the situational factors (e.g., women are the minority and may be acting assertively to be heard), rather than the dispositional account (e.g., being difficult to work with). Research by Snyder and Jones (1974) showed that people assume a person's true opinions align with their behaviors even when it is made apparent that their behaviors are not candid. Researchers asked participants to write persuasive essays but assigned which perspective to take. These essays were given to other participants who were asked to assess the writers' true attitude. Results showed that participants considered the perspective of the essay to be representative of the actual opinion of the writer, representing attributional errors. When participants were asked to consider the situation by emphasizing that the writers were given specific arguments that did not necessarily align with their own perspective, results showed that the attributional errors were reduced. Applied to the current study, we predict that the backlash due to the gender incongruent behavior may be reduced when the situation is emphasized rather than when the focus is solely on the woman behaving in a masculine manner.

How might attention be drawn to situational aspects? Taylor and Fiske (1975) identified perceptual salience as a key factor to emphasize situational aspects. In this study, two confederates participated in a “get to know you” conversation while six participants surrounded them. Two of these participants were seated so they had a clear view of both confederates. The other participants were seated in such a way that they only had a clear view of the confederate seated opposite of them. After the conversation, participants were asked to evaluate which confederate had the most influence in the conversation. Those who had a clear view of only one confederate perceived them as having significantly more influence in the conversation whereas those who had a clear view of both confederates perceived them both as being equally influential. This finding suggests that attentional focus can be drawn to certain situational aspects and depending on the participant’s perspective, their impressions may differ.

The FAE is at its core a type of “illusory causation” which occurs when observers inaccurately attribute causality to a stimulus because it is more salient than other stimuli. For example, Lassiter and colleagues (2002) found that when manipulating the literal viewpoint of a situation (the salience of stimuli), causal attributions made by participants were changed. In this study, participants watched a video taped confession that was filmed such that the focus was on the suspect or the detective. After viewing the taped confession, participants were asked to report the degree to which they believed the confession was voluntary or coerced. Participants who viewed the suspect-focused confession rated it significantly more voluntary than the participants who viewed the

detective focused confession. Thus, Lassiter et al. (2002) found that by manipulating one's attentional focus, attributional errors could be eliminated.

Another possible way to focus participants' attention on the situation is by asking them to diagnose the situation. Specifically, Krull (1993) and Krull and Dill (1996) showed participants a silent videotaped interview of a woman. Participants were randomly assigned to either determine how trait anxious the woman in the video is in general (dispositional goal) or to determine how anxiety provoking the interview topic was (situational goal). Those provided with a dispositional goal characterized the woman as being more trait anxious compared to individuals provided with a situational goal. This difference occurred because participants in the dispositional goal condition used the woman's behavior to determine her disposition whereas participants in the situational goal condition considered the influence of the situation on the woman's behavior. In a later study, Krull and Dill (1996) asked participants to determine the extent to which a discussion topic was sad or how dispositionally sad an individual was. Results showed that when participants were focused on the situation, they considered the target's behavior as well as the situational constraints prior to drawing dispositional conclusions. These findings can extend to the FAE and the backlash for a woman who leans in because, if the situation is emphasized over the woman, the FAE may be interrupted. Specifically, when a woman acts in a gender incongruent manner, she is penalized and observers often make negative personality attributions; however, there may be situational constraints that warrant her behavior that observers are naturally overlooking. It is possible that by

focusing the observer's attention on the situation, women may not experience backlash when they act incongruently.

Another way to interrupt the FAE may be through the addition of an accuracy goal. Similar to attentional focus, an accuracy goal may help the observer consider the role of the situation in the target woman's behavior rather than attribute her behavior to her personality. For example, Neuberg (1989) examined the influence of an accuracy goal during a job interview. In this study, participants were either encouraged to form an accurate impression of the interviewee or not. Participants who were given an accuracy goal collected more extensive and less biased information about the interviewee in comparison to those who were not provided with an explicit goal. Emphasis was placed on the accuracy of the impressions, which encouraged participants to take situational aspects into account, form more accurate impressions, and ultimately eliminate attributional errors. Similarly, Tetlock (1985) found that by informing participants that they would be asked to justify their impressions of a target at a later date, participants were motivated to be more accurate and attributional errors were minimized because they would be held accountable for their impressions. Tetlock explained that the reduction of attributional errors was due to participants processing the situational information more analytically and being more likely to check their biases due to the introduction of an "accountability motive."

Using another manipulation of an accuracy goal, Chen, Shechter, and Chaiken (1996) found that participants formed more accurate attitudes toward a fictional discussion partner when they were motivated to be more accurate. In this study,

participants were primed with either an accuracy or impression formation motivation in a task prior to the actual experiment. Given the “consensus opinions are correct” heuristic, participants given an impression formation goal were expected to treat consensus information as normative; however, participants given an accuracy goal would use consensus information as an informative cue. These normative or informational cues would in turn influence participants’ perceptions of the fictional discussion partner’s attitude (Deutsch & Gerard, 1955). To prime motivation, researchers used three pretested scenarios for each motive and asked participants to write how they would respond in each situation (i.e., “imagine being a reporter seeking to get the facts on an issue”). Results showed that participants primed with an accuracy motivation were less likely to rely on initial attitudes and consensus opinions in comparison to those who were primed with an impression formation motivation. This suggests that participants employed more effortful and systematic processing of attitude relevant information when they were primed with an accuracy goal rather than an impression formation goal. In terms of the FAE, when given an accuracy (or accountability) goal, observers should collect less biased information, which will result in fewer attributional errors thus eliminating the negative backlash toward a woman who acts in a gender incongruent manner. The current project explores both situational and accuracy goals as possible interventions for backlash against women who lean in.

Project Overview

Backlash against women who act in a gender incongruent (i.e., masculine) manner is well-documented. Overall, women who act in a gender incongruent manner are liked

less than women who act congruently and men (Amantullah & Morris, 2010; Butler & Geis, 1990; Heilman, Block, Martell, & Simon, 1989; Heilman & Okimoto, 2007; Rudman, 1998). This backlash interferes with women's career aspirations (Heilman et al, 2004) because they are viewed as hostile (Heilman, Block, & Martell, 1995), cold hearted and unkind (Eagly & Steffen, 1986) and such negative personality attributions result in the woman being considered less hireable (Rudman & Glick, 2001). Perhaps most problematically, these negative personality attributions are uncharacteristic of the women in question but also are made without taking situational influence into account. The need to increase access, justice, and diversity for women in the top level of corporate America is apparent in the statistics and one way to address this issue is to investigate strategies to eliminate the backlash women experience. Thus, the goal of this thesis project was to interrupt the FAE to eliminate the negative backlash women experience in doing so, two situationally focused interventions were tested: 1) providing an accuracy goal to observers and 2) drawing people's explicit attention to the male-dominated context. Both interventions were predicted to mitigate the backlash toward a woman who is leaning in. No predictions were made as to whether one will be more effective than the other in producing the most positive perceptions of women who lean in.

Hypotheses

1. When a woman leans in, this gender incongruent behavior will result in backlash against the woman such that she will be judged more harshly than a man who leans in (gender congruent behavior).

2. When a woman leans in but people's attentional focus is explicitly directed to consider the entire business meeting context, people will make fewer personality attributional errors when forming impressions of the woman such that she will experience less backlash and will receive similar positive ratings as a man who leans in.
3. When a woman leans in but people are given an accuracy goal, they will make fewer personality attributional errors when forming impressions of the woman and will penalize her less such that she will experience less backlash and be rated similarly positive as a man who leans in.

CHAPTER TWO – EMPIRICALLY TESTING BACKLASH INTERVENTIONS

MethodParticipants

A total of 141 undergraduate students (47.5% women; mean age = 20.79; 86.5% identified as White) from Montana State University were recruited through the Psychology 100 Participant Pool to take part in this study. Students participated in exchange for course credit. Participants were randomly assigned to one of 4 conditions: Woman Lean In Only, Situation Focus Intervention, Accuracy Goal Intervention, or Man Lean In Only. Three conditions (Woman Lean In Only, Situation Focus Intervention, and Accuracy Goal Intervention) featured a female target that leaned in whereas the other condition (Man Lean In Only) featured a male target leaning in, in the identical way as the woman lean in only condition. All conditions are described below.

Procedure

Participants signed up for a “Business Psychology” study supposedly aimed to evaluate undergraduate students’ “understanding of professional ethics in virtual settings” particularly in brief daily communication. Both male and female experimenters ran participants individually and in groups of up to 4. Participants were seated at computers once they entered the lab, the cover story was provided, and they were asked to complete a brief measure that ostensibly assessed their professional experience. Depending on experimental condition, this measure was one of the interventions and primed participants with an accuracy goal or not (Chen, Shechter, & Chaiken, 1996). Next participants were

given instructions for observing and evaluating a business meeting (described below) and told that they had been randomly assigned to answer questions about the AVP of Finance at the end of the meeting. At this point participants observed a virtual business meeting that lasted 13 minutes through Adobe Connect, which was created in a manner that displayed a clearly male dominated situation. Throughout the virtual meeting, the AVP of Finance leaned in (acted in a masculine manner). Following the virtual business meeting, participants completed a series of counterbalanced surveys that asked them to evaluate the AVP of Finance and, as filler items, the CEO of WestJet International. To reinforce the cover story, participants also completed a brief survey on business communication. Finally, participants were debriefed, probed for suspicion, thanked for their time, and awarded credit.

Situation Featured in the Virtual Meeting. The virtual business meeting webinar was experimentally created and include a discussion among 10 Assistant Vice Presidents (AVP) of various divisions in an aircraft company and the company's CEO, modeled after previous research (see Heilman et al., 2004; Heilman & Okimoto, 2007). The discussion was presented as a "Daily Check In" and was about the upcoming review of their subordinate employees in each of their divisions. Participants saw a screen with a chat window, an image of a virtual conference room with the silhouettes of the CEO and AVPs seated around a conference table (9 male, 2 female), and a list of all of the employees in the webinar, see Appendix A for screen shots. The name and the title of each AVP (and the CEO) were included with their silhouette next to their name on the list of employees. The webinar was brief and lasted approximately 13 minutes. To maintain

consistency across conditions, each AVP and the CEO sat at the same spot in each condition, although, depending on the condition, the AVP of Finance was either a man or a woman. Additionally, the CEO always started the conversation and each person said approximately the same number of lines throughout the virtual webinar.

Lean In Only Conditions. In the “lean in only” conditions, the AVP of Finance leaned in and participants were asked to determine the degree to which the AVP of Finance had an effective and professional personality but were not given an accuracy goal. In one condition the AVP of Finance was a woman named Andrea and in the other, a man named James (Heilman et al., 2004; Heilman & Okimoto, 2007). At two points during the virtual business webinar, the AVP of Finance leans in by saying “I tend to thrive in pressure situations. If someone else in the Finance Division doesn’t come through, I’m responsible for that. I always pull it off—so well sometimes I even surprise myself. Even my employees notice and are quite complimentary,” and “I have very high standards for employees and I am not afraid to be brutally honest when a colleague’s work falls short. I think unvarnished, critical feedback is essential to moving our company forward,” (Heilman et al., 2004; Heilman & Okimoto, 2007). When Andrea leans in, this situation should most closely resemble real world circumstances and demonstrate naturally occurring backlash; Appendix B includes the full transcript

Situational Focus Intervention Condition. Prior to viewing the virtual meeting where the AVP of Finance leaned in, participants were given instructions modeled after Krull and Dill (1996) to manipulate their attentional focus. Specifically, participants were

asked to “figure out whether the individual was in a very stressful situation, a not at all stressful situation, or somewhere in between.” Conversely, those not given the situational goal were asked to “figure out if the individual has a very effective and professional personality, a not at all effective and professional personality, or somewhere in between.”

Accuracy Goal Intervention Condition. Prior to reading the instructions for viewing the business webinar where the AVP of Finance leaned in, participants were given 3 scenarios to consider and answer in order to manipulate accuracy goal intervention. Participants were instructed to read and imagine themselves in each of the scenarios which included being a reporter gathering facts, presenting their side of an issue at a company picnic, and gaining information about job internships for a friend (Chen, Shechter, & Chaiken, 1996). Finally, participants were prompted to explain what they would do in each of the scenarios. For the conditions that were not given an accuracy goal, participants were given a neutral activity where they read the scenarios and listed the details they remembered about them (Chartrand & Bargh, 1996).

Free Recall of Webinar. Directly following the recording, participants completed a brief paper and pencil survey that asked them to “tell us what you remember about the AVP of Finance” as well as what they remembered about the “virtual daily check in webinar.” Participants were instructed to write down everything they remembered about both the AVP of Finance as well as the webinar. There was no time limit given to participants and they were allowed to complete the questionnaire at their own pace.

To analyze responses to this open-ended item, a coding survey was created and two coders independently rated each participant's data. More specifically, the coding survey consisted of a total of 6 questions. Three questions were chosen to represent each of the primary dependent variables and raters evaluated whether the participant's open-ended response illustrated the AVP of Finance as likable (inter-rater reliability $r = 0.80$), competent ($r = 0.72$), and hostile ($r = 0.68$) on a 1 (strongly disagree) to 7 (strongly agree) scale. Additionally, they rated how the AVP of Finance was viewed overall on a 1 (negatively) to 7 (positively) scale (inter-rater reliability $r = 0.81$). Lastly, the total number of positive words (inter-rater reliability $r = 0.65$) and negative words ($r = 0.79$) used in reference to the AVP of Finance were coded. Summary scores for each of the questions were created by taking the average rating of the two coders and an overall "perception of the AVP" was computed using the likability, competence, and hostility (reverse scored) code.

Target Person Awareness Check. In order to ensure that the participants correctly paid attention to the target person, they were asked to indicate the gender of the CEO and the AVP of Finance in addition to their names. Participants were also asked to rate "how stressful the daily check-in webinar seemed for the AVP of Finance" on a 1 (not at all stressful) to 7 (extremely stressful) scale and "how high-stakes the virtual business webinar seemed for the AVP of Finance" on a 1 (extremely low stakes) to 7 (extremely high stakes) scale. Lastly, participants rated "how stressful it was for the AVP of Finance to work in a male dominated organization" on a 1 (not at all stressful) to 7 (extremely stressful) scale. Participants completed the same 3 items for the CEO as filler items.

Attention Checks. In order to ensure that the virtual meeting transcript was read, each participant was asked to write down how many AVPs participated as well as the date of the virtual business webinar.

Primary Backlash Dependent Measures

Workplace Competence and Warmth. The AVP of Finance was rated on 20 items on the workplace competence scale developed by Cuddy et al. (2004) following the virtual business meeting. Four of the 20 items were related to competence (capable, organized, skillful, efficient; $\alpha = 0.78$), 4 were related to warmth (good natured, sincere, warm, trustworthy; $\alpha = 0.82$), and the remaining 12 items served as filler traits (e.g. tolerant, determined, practical). Each item was rated on a 7 point scale from 1 (not at all) to 7 (extremely).

Interpersonal Hostility and Achievement Related Attributes. In order to assess interpersonal hostility and achievement related attributes of the target person, participants completed the composite rating from Heilman et al. (2004). The items used in this scale were selected from previous research (Heilman et al., 1995; Heilman et al., 1989). The items included in the achievement related scale were unambitious-ambitious; passive-active; indecisive-decisive; weak-strong; gentle-tough; timid-bold; and unassertive-assertive ($\alpha = 0.79$). The items included in the internal hostility scale are abrasive-not abrasive; conniving-not conniving; manipulative-not manipulative; not trustworthy-trustworthy; selfish-not selfish; and pushy-accommodating ($\alpha = 0.88$).

Secondary Measures

Potential for Success. Participants also completed an overall evaluation of the AVP of Finance taken from Heilman et al (2004). First, participants completed 3 questions that assessed overall evaluations of the employee ($\alpha = 0.90$): “overall, how would you rate the AVP of Finance?” (1= very low to 7 = very high), “how successful do you think the AVP of Finance will be in WestJet International?” (1 = not at all successful to 7 = very successful), “rate the AVP of Finance’s potential to excel in his/her career?” (1 = very low to 7 = very high). In addition to the overall evaluations of the employee, participants were asked to report how pleased they would be to have AVP of Finance as their manager (1 = not pleased to 7 = pleased). Lastly, participants were asked to recommend a bonus amount for the AVP of Finance between \$0 and \$10,000.

Bem Sex Role Inventory Short Form (BSRI). To assess participants’ perceptions of the AVP of Finance’s personality attributes, participants were asked to complete the 30 item BSRI short form (Bem, 1974). Specifically we were interested in the agentic/masculine versus communal/feminine personality attributes participants gave the AVP of Finance. Participants were asked to rate the degree to which they believed the AVP of Finance possessed each of the 10 agentic ($\alpha = 0.77$) and 10 communal ($\alpha = 0.92$) characteristics during the virtual business meeting. Items were ranked on a 7 point Likert scale ranging from 1 (never to almost never true) to 7 (always or almost always true) and included characteristics such as “aggressive” and “independent” on the agentic/masculine

subscale and “gentle” and “sensitive to needs of others” on the communal/feminine subscale.

Results

The aim of the current study was to interrupt the FAE and eliminate backlash for women who act in a gender incongruent manner. We tested two interventions: the introduction of an accuracy goal and drawing the observer’s attention to the male dominated situation that the AVP of Finance was working in. We hypothesized that both interventions would lead observers to make more positive impressions of the female AVP of Finance (Hypotheses 2 and 3) in comparison to the Woman Lean In Only condition where there was no intervention (Hypothesis 1). Moreover, with an intervention, the female AVP of Finance would be rated as favorably as the male AVP of Finance (Hypotheses 2 and 3). No prediction was made as to whether one intervention would be more effective in eliminating backlash than the other. Lastly, we expected observers to form the least favorable impressions of the female AVP of Finance when provided no intervention.

Attention Checks

Prior to completing the dependent measures, participants answered a series of attention check questions that included the gender of the CEO and AVP of Finance in addition to their name. Participants who incorrectly identified the gender of either the CEO or the AVP of Finance were excluded from the analysis ($n = 17$) in addition to those who reported not remembering which employee was the AVP of Finance ($n = 5$).

Participants who incorrectly identified the name of the AVP of Finance or CEO were included in the final dataset as long as they had correctly identified the gender. Lastly, any participants who reported being suspicious about the nature of the experiment were excluded ($n = 4$). Some participants fell into more than one of the exclusion conditions. Taking all of this into account, 24 participants were excluded resulting in a study sample of 117 participants that was used for all analyses.

Free Recall of Webinar

We first examined the open-ended item coded by two raters to examine the influence of the interventions in eliminating spontaneously generated backlash for gender incongruent women. Separate one-way analyses of variance (ANOVA) were run to examine the effect of the interventions on overall perception of the target and total number of positive and negative words used to describe the AVP of Finance. Fisher's least significant difference (LSD) post hoc analyses were run to determine overall significant differences with significance set at $p < 0.05$. See Table 1.

Overall Perception of AVP of Finance. A significant main effect of condition emerged on participant's overall perception of the AVP of Finance ($F(3, 113) = 6.28, p = 0.001$). LSD post hoc analysis revealed that, counter to predictions, the Accuracy Goal intervention condition resulted in the least positive impressions of the AVP of Finance in comparison to the Situation Focused intervention, the Woman Lean In Only, and the Man Lean In Only conditions, which were all equal to each other. Additionally, the Situation Intervention resulted in more positive impressions of the AVP than the Man Lean In Only

condition. There were no other significant differences. Results suggest that in order to eliminate the negative effects of backlash it is best to draw attention to the situational constraints that the woman is working within or to not give any specific instructions. In fact, participants formed more negative impressions of the AVP of Finance when they were given a goal to form accurate impressions.

Positive Words About the AVP of Finance. A significant main effect of condition on the total number of positive words mentioned in reference to the AVP of Finance was revealed ($F(3, 113) = 2.68, p = 0.05$). Participants in the Accuracy Goal wrote significantly fewer positive words about the AVP of Finance in comparison to the Situation Focused intervention and the Woman Lean In Only conditions. Those in the Situation Focused intervention condition wrote more positive words about the AVP of Finance than the Man Lean In Only condition; however this difference was only marginally significant ($p = 0.053$). The number of positive words written about the AVP of Finance did not differ between the Situation Focused intervention and the Woman Lean In Only conditions. Lastly, participants in the Man Lean In Only condition wrote fewer positive words about the AVP of Finance than the Woman Lean In Only condition however, this difference was marginally significant ($p = 0.059$). That is to say that when given instructions to focus on the situation, participants form the most positive impressions of the AVP of Finance in comparison to the Accuracy Goal Intervention condition. Additionally, results suggest that participants noticed the situational constraint that the AVP of Finance was working in as they used a greater number of positive words to describe the female AVP of Finance in comparison to the Accuracy Goal Intervention

condition. This suggests that participants use a greater number of positive words to describe the AVP of Finance when no explicit instructions are given or when their attention is directed toward the situation in comparison to when participants are motivated to be accurate.

Negative Words About the AVP of Finance. There was a significant main effect of condition on negative words written about the AVP of Finance ($F(3, 113) = 6.45, p < 0.001$). The Accuracy Goal intervention condition again significantly differed from the Situation Focused intervention condition as well as the Woman Lean In Only and Man Lean In Only conditions suggesting that participants in the Accuracy Goal intervention condition used more negative words to describe the AVP of Finance than any other condition. The Situation intervention condition was marginally different from the Man Lean In Only condition ($p = 0.052$) but did not differ from the Woman Lean In Only condition. Moreover, the Woman Lean In Only and Man Lean In Only conditions were not significantly different from each other. Once again, results suggest that the best way to reduce negative words about the gender incongruent women is by drawing the observer's attention to the situation or by refraining to give any instruction regarding impression formation (rather than introducing an accuracy goal).

Target Person Awareness Check

After completing the Free Recall of Webinar questionnaire, participants were presented with a series of questions that asked them to rate how generally stressful the meeting was and how stressful it is for the AVP of Finance and CEO to work in a male

dominated organization. Unintentionally, when participants were asked to make judgments about how stressful it would be to work in a male dominated organization, their attention was directed toward the situation and this question acted as a type of situational intervention. This inadvertent methodological flaw means the planned analyses were not appropriate for the present data because now all of the participants were placed in a “situation focused” condition. To try and learn from the data that occurred prior to these questions, an alternative analysis plan was developed.

Table 1. Free Recall of Webinar Table of Means

	Accuracy Goal Intervention	Situation Focused Intervention	Woman Lean In Only	Man Lean In Only
	Mean (SE)	Mean (SE)	Mean (SE)	Mean (SE)
Overall Perception	2.88 _a (0.18)	4.23 _b (0.18)	3.88 _{bc} (0.30)	3.57 _c (0.20)
Positive Words	0.29 _a (0.10)	0.76 _b (0.17)	0.74 _b (0.21)	0.33 _{ab} (0.12)
Negative Words	2.38 _a (0.24)	0.94 _b (0.22)	1.40 _b (0.24)	1.57 _b (0.21)

Note. Means not sharing a subscript within a row significantly differ at $p < 0.05$

Original Analyses Plan and Results

As originally planned, we tested whether the backlash effect was replicated in the present study and examined the effect of the interventions on observers’ ratings of the AVP of Finance on each of the backlash dependent measures. To do this, mean composite scores were created for each of the backlash measures and separate one-way ANOVAs were conducted. LSD post hoc analyses were run to determine overall significant differences with significance set at $p < 0.05$. See Table 2.

Competence. The one-way ANOVA revealed a significant main effect of condition on competence ($F(3, 113) = 3.97, p = 0.01$) and LSD post hoc analyses were conducted. A significant difference between the Accuracy Goal and Situation Focused Intervention conditions ($p = 0.02$) such that participants in the Situation Focused Intervention condition rated the AVP of Finance as significantly more competent than those in the Accuracy Goal Intervention Condition. The Accuracy Goal Intervention condition was significantly different from the Woman Lean In Only condition ($p = 0.03$) suggesting that participants in the Woman Lean In Only condition formed more favorable impressions of the AVP of Finance and rated her as more competent than those in the Accuracy Goal Intervention condition. The Situation Focused Intervention condition and the Man Lean In Only condition significantly differed ($p = 0.09$) such that participants in the Situation Focused Intervention condition rated the AVP of Finance significantly more competent than participants in the Man Lean In Only condition. Additionally, the Man Lean In Only and the Woman Lean In Only conditions significantly differed ($p = 0.01$) suggesting that in the absence of an intervention, participants rated the female AVP of Finance as significantly more competent than the Male AVP of Finance. No other significant differences were revealed.

Warmth. A significant main effect of condition on warmth was revealed ($F(3, 113) = 5.33, p = 0.01$) and LSD post hoc analyses were conducted to examine the differences. The Accuracy Goal Intervention and Situation Focused Intervention conditions significantly differed in terms of warmth ratings for the AVP of Finance ($p = 0.03$) such that those in the Accuracy Goal Intervention condition rated the AVP of

Finance as significantly less warm than those in the Situation Focused Intervention condition. Moreover, the Accuracy Goal Intervention condition significantly differed from the Woman Lean In Only condition ($p = 0.01$) such that participants in the Woman Lean In Only condition rated the AVP of Finance as significantly more warm than participants in the Accuracy Goal Intervention condition. The Situation Focused Intervention and the Man Lean In Only conditions significantly differed such that the AVP of Finance in the Situation Focused Intervention condition was rated as being significantly more warm. Lastly, the Woman Lean In Only condition and the Man Lean In Only condition significantly differed such that the female AVP of Finance was rated as being significantly more warm than the male AVP of Finance. There were no other significant differences.

Interpersonal Hostility. A main effect of condition on interpersonal hostility was found ($F(3, 113) = 4.84, p = 0.003$). LSD post hoc analyses revealed a significant difference between the Accuracy Goal Intervention condition and the Situation Focused Intervention condition ($p = 0.001$) such that participants in the Situation Focused Intervention condition considered the AVP of Finance to be significantly less hostile than those in the Accuracy Goal Intervention condition. A significant difference between the Accuracy Goal Intervention condition and the Woman Lean In Only condition was also revealed such that participants in the Woman Lean In Only condition rated the AVP as significantly less hostile than participants in the Accuracy Goal condition. The Male Lean In Only condition and the Situation Focused Intervention condition were significantly

different ($p = 0.05$) such that the female AVP of Finance was rated as significantly less hostile than the male AVP of Finance. The Woman Lean In Only and Male Lean In Only conditions were only marginally significantly different ($p = 0.08$) and no other differences were significant.

Table 2. Original Backlash Measures Table of Means

	Accuracy Goal Intervention	Situation Focused Intervention	Woman Lean In Only	Man Lean In Only
	Mean (SE)	Mean (SE)	Mean (SE)	Mean (SE)
Competence	4.51 _a (0.20)	5.22 _b (0.25)	5.16 _b (0.20)	4.43 _a (0.19)
Warmth	3.33 _a (0.19)	4.01 _b (0.23)	4.16 _b (0.25)	3.37 _a (0.20)
Interpersonal Hostility	6.80 _a (0.23)	5.30 _b (0.36)	5.44 _b (0.32)	6.18 _a (0.32)
Potential to Succeed	4.25 _a (0.25)	5.22 _b (0.26)	5.13 _b (0.22)	4.05 _a (0.20)
Bonus Amount	\$3,678.57 _a (\$537.74)	\$5,088.37 _{ab} (\$529.83)	\$4,344.83 _{ab} (\$372.65)	\$2,534.57 _a (\$258.27)
Pleased to have the AVP of Finance as manager	2.54 _a (0.31)	3.81 _b (0.45)	3.69 _b (0.37)	2.61 _a (0.33)
BSRI (Masculinity)	5.37 _a (0.15)	5.56 _{ab} (0.17)	5.56 _{ab} (0.14)	5.00 _a (0.10)
BRSI (Femininity)	2.55 _a (0.14)	2.63 _{ab} (0.19)	3.11 _b (0.22)	2.75 _{ab} (0.18)

Note. Means not sharing a subscript within a row significantly differ a $p < 0.05$

Potential to Succeed. A one-way ANOVA revealed a main effect of condition on potential to succeed ($F(3, 113) = 6.80, p < 0.001$) to examine this further, LSD post hoc

analyses were conducted. A significant difference between the Accuracy Goal Intervention and Situation Focused Intervention condition was revealed ($p = 0.01$) such that participants in the Situation Focused Intervention condition considered the AVP of Finance to have greater potential to succeed than those in the Accuracy Goal Intervention condition. There was also a significant difference between the Accuracy Goal Intervention condition and the Woman Lean In Only condition ($p = 0.01$) such that those in the Woman Lean In Only condition considered the AVP of Finance to have greater potential to succeed in comparison to those in the Accuracy Goal Intervention condition. The Situation Focused Intervention condition was significantly different from the Man Lean In Only condition ($p = 0.01$) such that the female AVP of Finance was considered to have greater potential to succeed in comparison to the male AVP of Finance. Lastly, the Male Lean In Only condition was significantly different than the Woman Lean In Only condition suggesting that in the absence of an intervention, the female AVP of Finance was considered to have greater potential to succeed in comparison to the male AVP of Finance. There were no other significant differences.

There was a significant main effect of condition on how pleased participants reported they would be to have the AVP of Finance as their manager ($F(3, 113) = 3.52, p = 0.02$) and LSD post hoc analyses were used to examine this further. There was a significant difference between the Accuracy Goal Intervention and Situation Focused Intervention conditions ($p = 0.02$) such that participants in the Situation Focused Intervention condition reported that they would be more pleased to have the AVP of Finance as their manager than those in the Accuracy Goal Intervention condition. There

was also a significant difference between the Accuracy Goal Intervention condition and the Woman Lean In Only condition ($p = 0.03$) such that those in the Woman Lean In Only condition reported that they would be more pleased to have the AVP of Finance as their manager in comparison to those in the Accuracy Goal Intervention condition. The Situation Focused Intervention condition and the Man Lean In Only condition revealed a significant difference such that those in the Situation Focused Intervention condition reported that they would be significantly more pleased to have the AVP of Finance as their manager in comparison to participants in the Man Lean In Only condition. There was also a significant difference between the Woman Lean In Only and Man Lean In Only conditions such that participants reported that they would be significantly more pleased to have the female AVP of Finance as their manager in comparison to the male AVP of Finance. No other significant differences were revealed.

There was a significant main effect of condition on the bonus amount participants would recommend for the AVP of Finance and LSD post hoc analyses were conducted. There was a significant difference between the Situation Focused Intervention condition and the Man Lean In Only condition such that participants in the Situation Focused Intervention condition recommended a higher bonus amount for the AVP of Finance. There was also a significant difference between the Woman Lean In Only and the Male Lean In Only conditions such that, in comparison to the male AVP of Finance, participants awarded the female AVP of Finance a higher bonus amount in the absence of an intervention.

Bem Sex Role Inventory. A significant main effect of condition on masculinity was revealed ($F(3,113) = 3.69, p = 0.01$) and LSD post hoc analyses were conducted. There was a significant difference between the Accuracy Goal Intervention condition and the Man Lean In Only condition such that participants in the Situation Focused Intervention condition considered the AVP of Finance to possess masculine traits to a greater extent than the male AVP of Finance. Additionally, there was a significant difference between the Woman Lean In Only and Man Lean In Only conditions such that in the absence of an intervention, the female AVP of Finance was considered to possess masculine traits to a greater extent than the male AVP of Finance. No other differences emerged for masculinity. Additionally, there was a non-significant main effect of condition on femininity ($F(3, 113) = 1.74, p = 0.16$).

Taken together, the current findings failed to replicate the backlash effect and, surprisingly, revealed an opposite pattern. That is, without any intervention, the female AVP of Finance was rated more positively than the male AVP of Finance. It is possible that this finding is a result of a question participants were presented with after viewing the virtual business webinar but prior to completing the backlash measures. The stress question (“how stressful is it for the AVP of Finance to work in a male-dominated organization?”) drew attention to the situational constraint that the AVP of Finance was working in and may have served as a situational intervention. To examine this possibility, a revised analysis plan was developed and executed.

Revised Analyses Plan and Results

As it is possible that the stress questions served as an intervention and may explain the absence of a backlash effect, we developed an alternate analysis plan. First, a one-way ANOVA was conducted to see if participants' responses to the male-dominated stress question differed by condition. A significant main effect was found ($F(3, 113) = 6.70, p < 0.001$) and LSD post hoc analyses were conducted to examine overall differences. The Male Lean In Only condition ($M = 2.61, SD = 1.78$) was perceived as less stressful than the Accuracy Goal intervention ($M = 4.04, SD = 1.43$), the Situation Focused intervention ($M = 3.74, SD = 1.81$), or the Woman Lean In Only ($M = 4.24, SD = 1.22$) suggesting that participants considered the Daily Check In to be significantly less stressful for the male AVP of Finance in comparison to any of the conditions with the female AVP of Finance.

Next, Pearson's correlation coefficients were calculated to examine the association between the male-dominated situational stress question (i.e., how stressful is it for the AVP of Finance to work in a male dominated organization) and the original dependent measures comparing the Man Lean In Only and Woman Lean In Only conditions (see Table 3). The revised research question examines whether the stress question served as a situation focused intervention and, if so, whether the female AVP of Finance experienced backlash for her gender incongruent behavior.

Next, a t-test was conducted for each of the dependent measures to examine whether participants' ratings varied between the male and female AVP of Finance conditions. Assuming that the male-dominated stress question might serve as a type of

“situational intervention,” it was predicted that participants would form favorable impressions of both the male and female AVP of Finance. Additionally the female AVP of Finance would not be penalized for leaning in during the business webinar. However, results should be interpreted with caution given the design of the study did not set out to empirically test this question and no condition exists in which the male-dominated stress question was not provided making it impossible to determine if the female AVP of Finance was penalized for acting in a gender incongruent manner to begin with.

Competence. There was a non-significant correlation between stress and competence ratings for the Man Lean In Only condition ($r = 0.15, p = 0.42$). There was a non-significant correlation between the stress question and competence for the Woman Lean In Only Condition ($r = -0.20, p = 0.29$). Lastly, the difference between the two correlations was calculated and was not significant ($z = 1.32, p > 0.05$).

Separate independent samples t-tests were also conducted to examine whether participants’ ratings on each of the dependent variables differed between the Man Lean In Only and Female Lean In Only conditions. The AVP of Finance was rated significantly more competent in the Woman Lean In Only condition than the male AVP of Finance in the Man Lean In Only condition ($t(60) = 2.53; p = 0.01$). This suggests that when attention was drawn to the male-dominated stressful nature of the situation, the female AVP seemed to not experience backlash and is actually viewed as more competent than the male AVP.

Warmth. There was a non-significant correlation between warmth and the stress question for the Man Lean In Only condition ($r = 0.04, p = 0.84$) and a non-significant relationship was revealed between the two variables in the Woman Lean In Only condition ($r = -0.29, p = 0.13$). The difference between the two correlations was not significant ($z = 1.26, p = 0.21$). Additionally, the AVP of Finance in the Woman Lean In Only condition was rated as significantly warmer than the AVP of Finance in the Man Lean In Only condition ($t(60) = 2.53, p = 0.014$). This suggests that when attention was drawn to the situational constraint the female AVP of Finance was working in (a male dominated organization), she did not experience backlash and was seen as significantly warmer than the male AVP of Finance.

Interpersonal Hostility. A non-significant association between the stress question and interpersonal hostility was found for the Male Lean In Only condition ($r = -0.13, p = 0.47$) and for the Woman Lean In Only condition ($r = -0.10, p = 0.63$), however the difference between the correlation coefficients was again non-significant ($z = 0.83, p = 0.41$). The AVP of Finance in the Woman Lean In Only condition was rated as less hostile than the male AVP of Finance ($t(60) = -1.62, p = 0.11$) though this finding was non-significant. These results suggest that both the male and the female AVP of Finance were seen as hostile during the virtual business webinar and that drawing attention to the stressful male dominated nature of the situation did not mitigate backlash for the female AVP of Finance.

Potential to Succeed. A non-significant correlation between the stress question and potential to succeed was found for the Male Lean In Only condition ($r = 0.19, p = 0.29$) and for the Woman Lean In Only condition ($r = 0.05, p = 0.79$). The difference between these correlations was non-significant ($z = 0.53, p = 0.60$). A non-significant positive correlation found between stress and bonus amount participants awarded the AVP of Finance for the Woman Lean In Only condition ($r = 0.05, p = 0.77$). The same variables were not significantly correlated for the Man Lean In Only condition ($r = -0.09, p = 0.64$) and again the difference was non-significant ($z = 0.52, p = 0.60$). Lastly, a non-significant correlation between stress and participants' ratings of how pleased they would be to have the AVP of Finance as their manager was found in the Man Lean In Only condition ($r = 0.02, p = 0.92$). A non-significant correlation was revealed for the Woman Lean In Only condition ($r = -0.21, p = 0.29$) between stress and participants' ratings of how pleased they would be to have the AVP of Finance as their manager. Again, the difference between the two correlation coefficients was not significant ($z = 0.84, p = 0.40$).

Participants considered the female AVP of Finance to have a greater potential to succeed within the organization ($t(60) = 3.61, p = 0.001$) than the male AVP of Finance and reported being significantly more pleased with the AVP of Finance in the Woman Lean In Only condition as their manager ($t(60) = 2.81, p = 0.03$) than the AVP of Finance in the Male Lean In Only condition. Lastly, participants awarded the female AVP of Finance higher bonus amounts ($t(60) = 2.81, p = 0.007$) than the AVP of Finance in the Man Lean In Only condition. This suggests that when the observers' attention is drawn to

the male dominated situation the female AVP of Finance is working in, she may not experience backlash and, compared to the male AVP of Finance, will be considered to have greater potential to succeed, awarded higher bonus amounts, and be rated as a more desirable manager.

Table 2. How stressful is it for the AVP of Finance to work in a male dominated organization?

	Man Lean In Only Condition		Woman Lean In Only Condition		z-Test Statistic	t-Test Statistic
	Pearson's <i>r</i>	Mean (SD)	Pearson's <i>r</i>	Mean (SD)		
Competence	0.15	4.43 (1.10)	-0.20	5.16 (1.07)	1.32	2.65**
Warmth	0.04	3.37 (1.12)	-0.29	4.16 (1.32)	1.26	2.53*
Interpersonal Hostility	-0.13	6.18 (1.84)	-0.10	5.44 (1.74)	0.83	-1.62
Potential to Succeed	0.19	4.05 (1.16)	0.05	5.13 (1.18)	0.53	3.61***
Bonus Amount	-0.09	\$2,534.57 (\$2,140.71)	0.05	\$4,344.83 (\$2,906.59)	0.52	2.81*
Pleased to have the AVP of Finance as manager	0.02	2.61 (1.89)	-0.21	3.69 (1.99)	0.84	2.20**
BSRI (Masculinity)	0.02	5.00 (0.60)	-0.05	5.56 (0.74)	0.26	3.24
BSRI (Femininity)	0.07	2.75 (1.03)	-0.21	3.11 (1.17)	1.06	1.26

Note. Pearson's *r* correlation coefficients represent the relationship between the male dominated stress question and dependent variables.

* $p < 0.05$ ** $p < 0.01$ *** $p < 0.001$

Discussion

The current study sought to disrupt the Fundamental Attribution Error (FAE) in order to eliminate the negative effects of backlash women experience when they lean in or act in a gender incongruent manner. To do this, we tested two situationally focused interventions: 1) the addition of an accuracy goal and 2) directing the observer's attention to the male-dominated situation the AVP of Finance was working. Our original analysis plan failed to replicate a backlash effect and a fatal flaw was uncovered. As a result, an alternate analysis plan was developed and free recall data was analyzed. When looking at the free recall responses, participants' impressions of both the male and female AVP of Finance were equally favorable. This finding is counter to Hypothesis 1, which posited that in the absence of an intervention, participants would form the least favorable impressions of the female AVP of Finance. However, consistent with Hypothesis 2, the situational intervention appears to have the most positive effect on participants' free recall impressions of the female AVP of Finance. Participants in this condition said more positive and fewer negative words about the AVP of Finance than any other condition. Additionally, this condition resulted in the most favorable overall perception of the AVP of Finance in comparison to both the Male Lean In Only and Accuracy Goal intervention conditions. This suggests that when attention is drawn to the situational constraints that a woman is working in, observers will form more favorable impressions and women may be less likely to experience backlash due to stereotype inconsistent behavior. Participants who were given a goal to form more accurate impressions of the AVP of Finance actually produced free recalls that conveyed the least favorable impressions of the AVP of

Finance in comparison to all other conditions. Participants in this condition on average used more negative and fewer positive words. This finding is counter to Hypothesis 3 as it was expected that both interventions would result in more positive impressions of the female AVP of Finance and provides evidence that the addition of an accuracy goal may not be the most effective method for eliminating backlash against gender incongruent women. However, these results should be interpreted with caution as the free recall questionnaire was not designed to test for backlash and, more importantly, we did not replicate the backlash effect.

A backlash effect was not evident in either the original analyses or the revised analyses. Specifically, the backlash effect did not emerge in the free recall data, though it is important to note that the free recall questionnaire was not designed to test for backlash. It is possible that this is due to a methodological within the present study. That is, the current study inadvertently contained a fatal flaw when participants were asked to rate how stressful working in a male dominated situation was for the AVP of Finance (and the CEO). As a result, all participants in all conditions essentially went through a situation focused intervention and there was no true control condition. That is to say, due to the addition of the stress question, there is no condition where participants were not given an intervention and were able to form impressions of the AVP of Finance as they normally would. This makes it impossible to identify a backlash effect as participants in each condition were presented with an intervention.

While there are methodological explanations for the failure to establish a backlash effect in the present study, it is also possible that a societal shift has occurred and

backlash is no longer observable. For example, Williams and Ceci (2015) recently published a study that argued that hiring bias against women is no longer prevalent. In fact, in their study, they found a 2:1 hiring preference for women. More specifically, across 5 studies, Williams and Ceci (2015) found that when faculty members evaluated male and female candidates, they demonstrated a preference for the female candidates. Specifically, in this study, the researchers recruited faculty members in Engineering, economics, psychology, and biology from a large sample of colleges and universities in all 50 states. Faculty members were tasked with evaluating identically qualified applicants named either “Dr. X,” “Dr. Y,” or “Dr. Z.” In experiments 1-3, faculty members evaluated the candidates based on a narrative that included the search committee’s assessment, excerpts from reference letters, and an average rating of the candidates job talk and interview and were tasked with ranking each of the 3 candidates in order from first to third. The authors found that when pitted against an equally qualified male candidate (experiments 1-4) faculty members had a tendency to rank the female candidate higher. Additionally, in experiment 5, faculty members were presented with the narrative (from experiment 1) of a single candidate that they rated on a 1-10 scale. Again, the researchers found that faculty members favored the female candidate over the identically qualified male candidate. The authors interpreted these findings as evidence that there is no bias against women in academic STEM (science, technology, engineering, and math) fields or, specifically, in the hiring process.

Additionally, in a response to the Williams and Ceci article, Williams and Smith (2015) talk about what they call the superstar effect—or when women are described as a

“superstar” or as exceptional, they are often rated more positively than similar males. As Williams and Smith explain, women, particularly those who work in STEM domains, often find that they need to prove themselves and their competence more so than their male peers. However, when described as a superstar, a woman is considered to have proven her competence. This may relate to the present study especially considering that the female AVP of Finance holds a prestigious executive position with a large airline company. As such, participants may have rated her more positively in comparison to the male AVP of Finance simply due to her superstar status.

Another curious finding were the Accuracy Goal Intervention condition results that were counter to Hypothesis 3. Rather than resulting in the most positive impressions of the female AVP of Finance, participants in this condition formed the least positive impressions of her. This is counter to past literature that found participants formed less biased impressions when given an explicit accuracy goal (Neuberg, 19989) as well as Chen, Schechter, and Chaiken (1996) who also found that when participants are primed with an accuracy goal, they form more accurate impressions of the target person. A possible explanation as to why the Accuracy Goal Intervention condition did not result in positive impressions of the AVP of Finance is that in the present study, participants were primed with an accuracy motivation and given an explicit dispositional goal. Specifically, participants were presented with instructions prior to viewing the virtual business webinar. This served as an opportunity to tell participants which AVP they should focus on and to give participants the Situation Focused Intervention condition instructions. Participants not in the Situation Focused Intervention condition were also given

instructions at this point, however, those in the Accuracy Goal Intervention, Woman Lean In Only, and Man Lean In Only conditions were given instructions that emphasized a dispositional goal rather than the situational goal. That is, participants were asked to “determine whether the AVP of Finance is a highly effective and professional individual, a not at all effective and professional individual, or somewhere in between.” These instructions were model after Krull and Dill (1996) however it is possible that participants in this condition formed the least positive impressions of the AVP of Finance because of the dispositional instructions they were given prior to viewing the virtual webinar. Perhaps participants were motivated to be more accurate but with the addition of the dispositional goal instructions, they focused on the AVP of Finance’s disposition rather than noticing the situational constraints. Thus, while participants may have been motivated to collect more extensive and less biased information, they may have also focused on the AVP of Finance’s disposition and, in a way, counteracted the accuracy goal intervention.

Lastly, in terms of our later backlash measures, participants generally rated the female AVP of Finance more favorably than the male AVP of Finance (i.e., warmth, competence, potential to succeed). It is possible that empathy played a role in participants’ ratings of the female AVP of Finance and may explain this finding. For example, Batson et al. (1997) found that when participants were encouraged to imagine themselves in the position of a stigmatized group member, they reported more positive attitudes towards the group member. In this study participants viewed a video taped interview of a young woman who was diagnosed with AIDS. Prior to viewing the video,

participants were given instructions that told them to “take an objective perspective toward what is described” or to “imagine how the woman who is being interviewed feels about what has happened and how it has affected her life.” When given the instructions that emphasized an empathetic perspective, participants reported greater empathetic responses to the woman in the interview and as a result, had more positive attitudes towards people with AIDS. In study 2, Batson, et al. (1997) established that same positive effect of empathy when participants were tasked with reporting attitudes towards a homeless man. Though our study did not intentionally induce feelings of empathy like Batson et al. (1997), it is possible that participants spontaneously felt empathy for the female AVP of Finance that resulted in more positive ratings of her.

Limitations and Future Directions

Most notably, the present study had a fatal flaw that prevented the originally planned experiment from being executed. Though inadvertent, the male-dominated stress question drew attention to the situation the AVP of Finance was working in. As a result, the stress question may have served as a situational intervention and colored participants’ later responses. The lesson here is one of how important it is to pay careful attention to ordering effects in study design (McFarland, 1981; Schneider, Gruman, & Coutts, 2011; Schuman, Presser, & Ludwig, 1981; Strack, 1992). Methodological studies show that the type of items people complete in survey research influence subsequent responses (McFarland, 1981; Schuman, Presser, & Ludwig, 1981). The solution is to remain conscientious of the order of questions, being sure that specific questions are presented after more general questions, and to counterbalance surveys in order to ensure that the

outcome is not dependent on the influence of a question on subsequent items (Fiske, Gilbert, & Lindzey, 2010; Schneider, Gruman, & Coutts, 2011). Moreover, in future endeavors to test backlash interventions, researchers should utilize pilot testing to ensure that a backlash effect is replicated in order to test the efficacy of the interventions. Pilot studies are an important tool in research and increase the likelihood of executing a successful study because, among other things, they can identify procedural issues (van Teijlingen & Hundley, 2001). The current study can only speculate about the free recall findings, although they occurred before the male-dominated stress items, the recall items were not designed to test for backlash. Pilot testing could have helped to identify the fatal flaw and allowed the original study to occur.

The goal to understand ways to eliminate the backlash against women who “lean in” (act masculine) is important and future research would do well to continue this effort. There are a number of situational constraints that a woman may be working in which could contribute to her gender incongruent behavior. Future research should look into varying the situations that the woman is working in. For example, the efficacy of the situational intervention may not persist when the gender makeup of the group is female dominant rather than male dominant or even gender equal. Additionally, there are many situational constraints, such as cultural difference, organizational policies, or the difficulties working mothers face that might compel a woman to act in a gender incongruent manner. For example, Cuddy, Fiske, and Glick (2004) found that people reported being less interested in hiring, promoting, or educating working mothers in comparison to working fathers and those without children. Working mothers were also

thought to lack perceived competence; however, working fathers were not penalized in the same manner. Moreover, Rudman and Fairchild (2004) found a link between backlash and cultural stereotype maintenance such that observers (as well as actors) penalized those who acted in an incongruent manner. As is evident, it is imperative that future research explores possible ways to disrupt the FAE when women face situational constraints other than working in a male dominated organization.

In addition to the various situational constraints that a woman might find herself in, it is equally important for future research to consider appropriate ways to eliminate backlash. Specifically, professional advancement, salary and bonus amounts, and hiring decisions are generally made by individuals who are in power positions and past research has shown that it is difficult for these individuals to take the perspective of others (Galinsky, Magee, Inesi, & Gruenfeld, 2006), thus, it is important to take this into consideration when developing backlash interventions. Considering that the situational intervention requires observers to consider the perspective of the target, future research should examine whether situationally focused interventions are appropriate when the observers are in powerful positions especially since they rely more on stereotypes because they are attentionally overextended (Fiske, 1993). This is particularly important considering the salary concessions women often make for fear of backlash (Amantullah & Morris, 2010) and the increased likelihood of a woman who leans in being passed over for a promotion (Heilman et al., 2004). Moreover, if those in a position of power are unable to take the perspective of another person, a situation intervention may be an inappropriate method for eliminating backlash.

Conclusion

Although a fatal flaw was discovered in the design of the present study and the backlash effect was not established, findings from the free recall data suggest that the best way to mitigate backlash against gender incongruent women is by introducing an intervention that draws attention to the situation or by doing nothing considering participants appeared to notice the situational constraints the female AVP of Finance was working. Participants who were instructed to determine whether the situation was a stressful one for the woman in the male-dominated situation and participants in conditions without any intervention formed the most positive impressions of the woman. Of course we can only speculate about the current findings considering the free recall was not designed to test the original hypotheses; however, it suggests that observers might be noticing the situational constraints a woman is working within and that they consider them when forming impressions. Surprisingly, those who were primed with an accuracy motivation formed the least favorable impression in comparison to all other conditions that may have been a result of the additional of a dispositional goal.

This is the first study to set out to test the situation focused and accuracy goal interventions in mitigating backlash against gender incongruent women and future research should continue to test ways to disrupt the FAE and eliminate backlash. This line of research is particularly important considering the continued underrepresentation of women in business and the well-documented positive effects of gender diversity in work groups and management. For example, past studies have found that including women in an organization may lead to better ideas (Rogelberg & Rumery, 1996), increased firm

value and performance (Smith, Smith, & Verner, 2006), improved team collaboration (Bear & Woolley, 2011) and potential for greater economic gains (Campbell & Minguez-Vera, 2008). The benefits of gender diversity in workgroups have also been investigated as a stereotype threat intervention. Past research has found that by incorporating female peers into work groups, women's motivation, verbal participation, and career aspirations in engineering can be enhanced (Dasgupta, Scircle, & Hunsinger, 2015). Even more, the inclusion of women in groups is significantly correlated with a group's collective intelligence (a group's ability to perform on a wide range of tasks and functions in a manner similar to general intelligence in individuals; Woolley, Chabris, Pentland, Hashmi, & Malone, 2010). These findings paint a clear picture of the benefits of diversity in the workplace and provide evidence that efforts should continue to create access to executive positions for women.

Although Sheryl Sandberg argues that women must lean in to advance in corporate America, the real issue lies in observers' impressions of a woman who leans in. Rather than pushing women to try harder in order to advance in their careers, energy should be spent challenging backlash and the erroneous personality attributions observers make because of a woman's gender incongruent behavior. If women continue to experience backlash and as a result continue to be underrepresented in the top tier of corporate America, companies will not have the opportunity to benefit from increased diversity.

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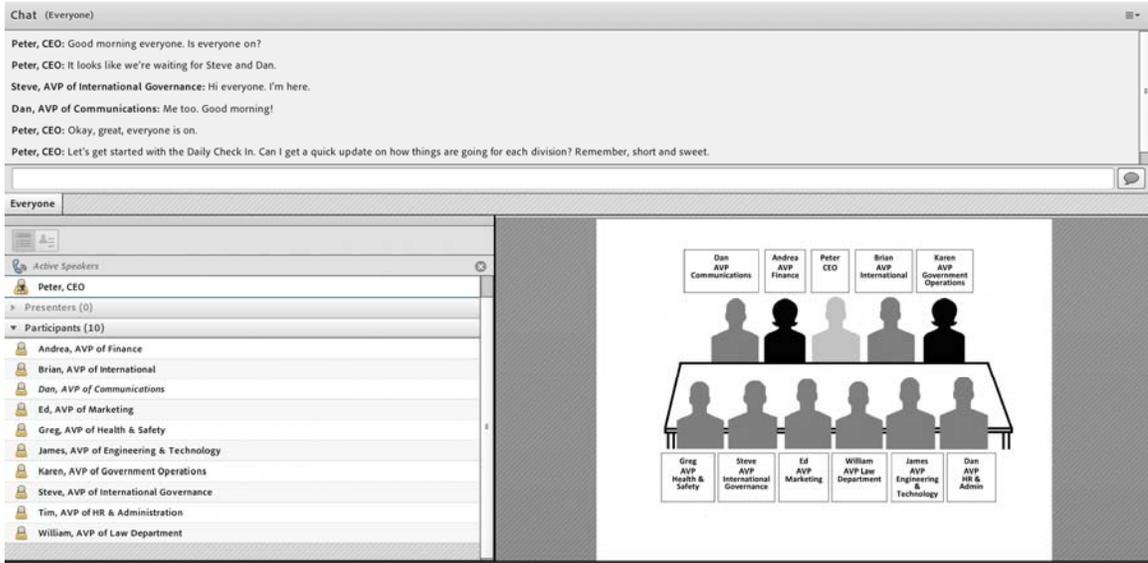
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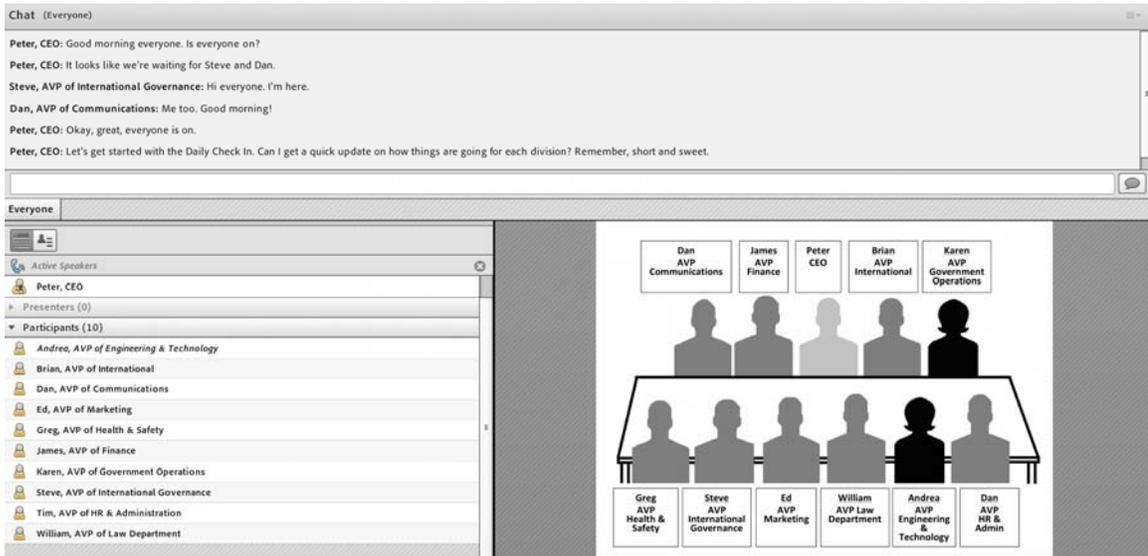
APPENDICES

APPENDIX A

DAILY CHECK IN WEBINAR SCREENSHOTS



Note. Participants in the Accuracy Goal Intervention, Situation Focused Intervention, and Woman Lean In Only conditions were shown this version of the Adobe Connect Daily Check In Webinar.



Note. Participants in the Man Lean In Only condition were shown this version of the Adobe Connect Daily Check In Webinar.

APPENDIX B

DAILY CHECK IN WEBINAR SCRIPT

Peter CEO: Good morning everyone. Is everyone on?

Peter CEO: It looks like we're waiting for Steve and Dan.

Steve: Hi everyone. I'm here.

Dan: Me too. Good morning!

Peter CEO: Okay, great, everyone is on. Let's get started with the Daily Check In. Can I get a quick update on how things are going for each division? Remember, short and sweet.

Steve: Hold on, I'm not quite ready.

***Andrea/James:** I'm ready, I'll go first.*

***Andrea/James:** Every thing is going great in my division! As you all know, I tend to thrive in pressure situations. If someone else in the Finance Division doesn't come through, I'm responsible for that. I always pull it off—so well sometimes I even surprise myself. Even my employees notice and are quite complimentary.*

James/Andrea: Everything is running smoothly here too. I've got no complaints. We're on track for the telecommunications upgrade next month.

William: We're on top of everything. Everyone is working hard.

Brian: Same with us. Everything is as it should be. The upcoming merger is progressing seamlessly.

Dan: There are no problems to report. All's well!

Karen: Everyone is doing their part.

Steve: Everything is operating as it should. It's all good on this end.

Greg: We're good. There are no problems to report right now. Our men have gone 289 days without an accident or injury. It would appear the monthly safety newsletter is really paying off.

Ed: We're working tirelessly but everything is running well.

Tim: There's a lot going on but no issues to report.

Peter CEO: Great! Glad to hear everything is as it should be. The purpose of our meeting today is to talk about the upcoming employee reviews. Each of you will handle the reviews in your divisions. In order to ensure that the company runs smoothly at all

times, employee reviews are essential to ensure everyone is doing their part and performing to established standards.

Peter CEO: Does anyone have any questions about the reviews?

Ed: No.

Dan: I'm good.

Brian: Sounds good to me.

***Andrea/James:** Yes, I would like to say that I have very high standards for employees and I am not afraid to be brutally honest when a colleagues' work falls short. I think unvarnished, critical feedback is essential to moving our company forward. How soon will the reviews get underway?*

Peter CEO: Thank you Andrea/James. Expect for these reviews to be completed within the next two weeks. Company executives will be visiting each of the divisions to speak with and observe employees as they meet with each of you. Please make sure that you make yourselves available to them.

Dan: I'd like to request that we have our reviews during the second week. One of our guys is scheduled to be out of the office next week.

Tim: That's great because we'd prefer the first week. We have an in-house training during the second week.

Karen: Either week works for me.

Peter CEO: We can accommodate those scheduling requests. Is there anything else we should discuss?

Ed: I'd like to speak with Dan off-line to discuss the new marketing campaign.

Dan: I'm available tomorrow at 2. Send me a calendar invite.

Peter CEO: Okay. Thanks everyone! Prepare for the employee reviews and let me know if you have any questions. That's all for now, we'll talk tomorrow at the Daily Check In.

Note. The lean-in lines are included in italics, but were presented in normal font to participants.