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Is Proactive Behavior Always Positive? An Examination of Leader Reactions Based on Employee Gender and Organizational Crisis

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IS PROACTIVE BEHAVIOR ALWAYS POSITIVE? AN EXAMINATION OF LEADER
REACTIONS BASED ON EMPLOYEE GENDER AND ORGANIZATIONAL CRISIS

by

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B.A. Muhlenberg College, 2015

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ABSTRACT

Organizations are increasingly looking to hire employees who are willing to take initiative and go above and beyond expectations (Campbell, 2000). To that aim, proactive behaviors have been increasingly considered as a potentially important characteristic of today's workers (Campbell, 2000). With workplaces becoming more decentralized and work becoming increasingly innovative and self-directed, organizations require employees who are able and willing to be proactive (Campbell, 2000; Frese & Fay, 2001). Researchers have found many benefits to proactive behavior, including increases in individual performance and innovation (Seibert, Kraimer, & Crant, 2001; Tornau & Frese, 2013). While proactive behavior may have many benefits, there is some research that suggests, under certain circumstances, proactive behavior may have negative consequences for the enacting employee (Fuller, Marler, Hester, & Otondo, 2015; A. M. Grant, Parker, & Collins, 2009). This study investigated boundary conditions on the relationship between proactive behavior and positive outcomes for enacting employees. Specifically, it looked at the role of employee gender and organizational crisis on leader reactions to proactive behavior. A sample of college students participated in a laboratory experiment, where they role played as managers working with proactive employee confederates. With increased emphasis being placed on proactive behavior in the workplace, it is greatly important to understand conditions in which proactive behavior may be negatively received by leadership. Implications for theory and practice are discussed.

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INTRODUCTION

Organizations are increasingly looking to hire employees who are willing to take initiative and go above and beyond expectations (Campbell, 2000). To that aim, proactive behaviors have been increasingly considered as a potentially important characteristic of today's workers (Campbell, 2000). Proactive behavior has been defined as "self-initiated, anticipatory action that aims to change and improve the situation or oneself" (Parker & Collins, 2010, p. 635). In large part due to demands associated with the changing nature of work, employee proactive behavior has become increasingly attractive to organizations and generated a growing interest amongst researchers. With workplaces becoming more decentralized and work becoming increasingly innovative and self-directed, organizations require employees who are able and willing to be proactive (Campbell, 2000; Frese & Fay, 2001). Researchers have found many benefits to proactive behavior, including increases in individual performance and innovation (Seibert, Kraimer, & Crant, 2001; Tornau & Frese, 2013). As Crant (2000) argues, proactive behavior has the potential of being a "high-leverage concept" (p. 435) that can increase organizational effectiveness long-term.

While proactive behavior may have many benefits, there is some research that suggests, under certain circumstances, proactive behavior may have negative consequences for the enacting employee (Fuller, Marler, Hester, & Otondo, 2015; A. M. Grant, Parker, & Collins, 2009). For example, many researchers posit that leaders may see proactive behavior as a threat and react negatively, leading to lower performance evaluations for proactive employees (Burris, 2012; Fuller et al., 2015). However, up to this point there has been less empirical investigation into the conditions under which leaders will react negatively to proactive behavior. The manner

in which leaders react to employees' proactive behavior is likely dependent on characteristics of the employee and contextual factors within the organization.

This thesis examines the potential impact of employee gender and organizational context on outcomes of proactive behavior. Gender is one employee characteristic that is known to impact leader evaluations of employees' performance (Eagly & Karau, 2002; Fiske & Stevens, 1993; Heilman, 1983). Women generally are found to receive lower evaluations than men in terms of performance, hirability (Rudman & Glick, 2001), and competence (Fiske, Cuddy, Glick, & Xu, 2002), especially in male-dominated positions or professions (Heilman, 1983; Heilman & Okimoto, 2007; Rudman, 1998). However, there is little research examining how women who perform explicitly proactive behaviors are evaluated compared to their male counterparts. In their presentation to the Society for Industrial-Organizational Psychology, Bagash, Eubanks, and Strauss (2017) began to examine this question but found mixed results that differed based on organization and country. Thus, there is a need for further empirical examination of how gender may influence leader reactions to proactive behavior and, particularly, under what conditions is this most likely to occur.

Proactive behaviors are aligned with stereotypically masculine gender roles, as they are agentic, active, and assertive (Eagly & Karau, 2002). Role congruity theory suggests that it is expected for individuals to behave in a manner aligned with their perceived gender role; those who do not are met with negative reactions (Eagly & Karau, 2002). Role congruity theory has been leveraged to explain the bias against women in management positions (Eagly & Karau, 2002; Heilman, 1983; Heilman & Okimoto, 2007; Rudman & Glick, 2001). When women act in agentic ways, such as performing proactive behavior, they are typically perceived to be violating their prescribed gender role. As is seen with other agentic behaviors, this violation is likely to

lead proactive women to receive negative evaluations or backlash, even if proactive men are rewarded for such behaviors.

Furthermore, several authors have noted the importance of examining context when studying work performance, as context influences how performance is conceptualized and what behaviors are appropriate (Ilgen & Hollenbeck, 1999; Hatrup & Jackson, 1996). Griffin, Neal, and Parker (2007) noted, specifically, that organizational uncertainty is likely to impact the degree to which employees exhibit proactive behavior, as well as the importance of proactive behavior in the workplace. With regard to gender discrimination, there is also literature that suggests organizational context, such as experiencing a crisis, may attenuate this bias against women by creating a unifying superordinate goal (Sherif, 1958). However, there is also literature that suggests a crisis may exacerbate gender bias because crises increase levels of stress and cognitive demand for leaders and employees (Macrae & Bodenhausen, 2000; Seeger, Sellnow, & Ulmer, 1998). Therefore, this paper investigates competing hypotheses of the potential moderating effect of organizational crisis with regard to gender bias in leader reactions to proactive behavior. This paper integrates the literatures on proactive behavior and workplace gender bias, and also considers the context of organizational crisis, in order to gain a better understanding of when and for whom proactive behaviors are rewarded.

Proactive Behavior

Definition and Conceptualization. As noted earlier, the focus of this paper is on proactive behavior, which is defined as self-initiated and anticipatory behavior that aims to challenge and improve current circumstances (Crant, 2000; Parker & Collins, 2010). Examples of proactive behavior include actions such as voicing concerns over issues in one's organization, seeking feedback from one's supervisor, or making changes to improve one's work processes. Grant and

Ashford (2008) proposed that proactive behaviors differ in terms of their form, target, and frequency. Form refers to variety in the type of behavior; as mentioned previously, proactive behaviors include many different types of behavior, from voicing organizational concerns to broadening one's professional network. Grant and Ashford (2008) also discuss variation in the intended target of proactive behavior. Similar to Griffin and colleagues' (2007) model of proactive behavior, which will be discussed in a later section, Grant and Ashford (2008) identify the primary targets of proactive behavior as the self, other people, and the organization. For example, an employee who is voicing concerns about their organization may do so in order to enhance their own career status, to improve working conditions for their coworkers, or to help improve the organization's functioning. Grant and Ashford also note that intended targets are not necessarily mutually exclusive. Finally, proactive behaviors can differ in frequency, or the extent to which the behaviors actually occur. Grant and Ashford note that frequency can be considered both as a dichotomous variable, in terms of whether or not the behavior occurs, as well as a continuous variable, in terms of how regularly the behavior occurs.

There are many different terms and conceptualizations used in the literature to examine proactive behavior and other related constructs. For this reason, the literature on proactive behavior has been criticized for being widespread and somewhat disconnected (Crant, 2000). Researchers have developed streams of research dedicated to similar constructs such as taking charge (Morrison & Phelps, 1999) and voice (Van Dyne & LePine, 1998). The variety in conceptualization and constructs (e.g., proactivity, proactive personality, voice, taking charge, proactive behavior) has led to diffuse streams of research on the topic of proactivity, some overlapping and some widely different (Tornau & Frese, 2013). Again, this thesis focuses specifically on proactive behavior. Many constructs similar to proactive behavior, including

taking charge and voice, although examined in separate literatures, are considered to be under the umbrella of proactive behavior (Parker & Collins, 2010). Therefore, these constructs are included in conceptualization of proactive behavior utilized in this thesis.

Other constructs, however, such as proactive personality, are conceptually distinct from proactive behavior. Proactive behavior is conceptualized as a set of behaviors whereas proactive personality is conceptualized as a personality trait. Proactive personality is used to describe an individual's predisposition to be active and initiate change (Bateman & Crant, 1993). The concept of proactive behavior focuses on the behaviors themselves rather than stable, individual tendencies. Proactive behavior is a distinct, observable event that results from an interaction between personality and environmental factors (Bindl & Parker, 2011; Tornau & Frese, 2013).

Proactive behavior can further be differentiated from concepts such as adaptive performance, which has been defined as task-directed behaviors enacted either in response to or anticipation of job-related changes (Jundt, Shoss, & Huang, 2015). The critical difference between the concepts of adaptive and proactive behaviors, as noted by Bindl and Parker (2011), is that adaptive behaviors are responses to previous or anticipated changes, while proactive behaviors initiate changes. Furthermore, Griffin, Neal, and Parker (2007) found that there are differences in predictors of adaptive and proactive behaviors. They found openness to be a strong predictor of adaptive, but not proactive behavior; conversely, role-breadth self-efficacy was found to be a strong predictor of proactive, but not adaptive, behavior.

Proactive behavior is also distinct from contextual performance constructs such as organizational citizenship behaviors (OCBs). OCBs have been defined as discretionary behavior that need not be formally recognized or rewarded, but in the aggregate promotes effective functioning of the organization (Organ, 1988). While there may be some overlap between the

two constructs, OCBs are not necessarily anticipatory or change-oriented, which are integral elements of the conceptualization of proactive behavior (Bindl & Parker, 2011). For example, helping behavior is discussed as a dimension of OCBs, which includes supporting and aiding coworkers (Organ, 1988; Podsakoff, Whiting, Podsakoff, & Blume, 2009); this may include helping a coworker complete a task or providing support to a coworker who is facing challenges at work. Such behaviors do not necessitate anticipating future challenges, nor do they initiate future change. While some authors suggest that OCBs can be carried out proactively (Bindl & Parker, 2011), OCBs are not inherently proactive.

Parker and Collins (2010) took a step toward merging the diffuse literature on proactive behaviors and developed a taxonomy of the different types of proactive behavior. The authors categorize the behaviors according to differences in what Grant and Ashford (2008) would describe as form. Using factor analyses, Parker and Collins identified a model consisting of three higher order dimensions and eleven behavioral categories. The higher order categories are as follows: *proactive work behavior*, defined as bringing about change internally within the organizational environment; *proactive strategic behavior*, defined as changing the organization's strategy and its interactions with the external environment; and *proactive person-environment fit behavior*, defined as changing oneself or the situation in order to increase one's fit within the organization. Parker and Collins' model is beneficial in that it shows the wide array of forms proactive behavior can take, merging ideas and behaviors from separate areas of the literature into one simplified model.

Griffin and colleagues (2007) also developed an organizing framework for proactive behaviors. Specifically, the authors developed this model within the context of uncertainty at work; it has been argued that uncertainty will continue to grow as an integral factor in

organizations as technology and the nature of work continue to change (Greenhalgh & Rosenblatt, 1984; Griffin et al., 2007; Ilgen & Hollenbeck, 1991). Several authors have posited that greater uncertainty at work increases the prevalence and necessity of proactive behavior (Bindl & Parker, 2011; Parker, Williams, & Turner, 2006) and noted the need to examine aspects of performance outside of traditional models of task and contextual performance (Griffin et al., 2007).

Rather than organizing based on the form of the behavior, Griffin and colleagues (2007) categorized behaviors based on the target of the behavior. Through a theoretical review of the literature as well as factor analyses, Griffin et al. (2007) identified three main categories: individual task, team member, and organization member proactivity. Griffin et al.'s (2007) categories include: individual task, team member, and organization member proactivity.

Individual task proactivity is defined as proactive behaviors aimed at changing one's individual work situation, work roles, or oneself. Such behaviors might include creating new procedures for a work task so that the employee can complete it more efficiently. *Team member proactivity* is defined as proactive behaviors intended to change a team's situation or the way the team functions. For instance, a team member may scan the environment to identify gaps in the team's communication. Finally, *organization member proactivity* is defined as proactive behaviors aimed at changing one's organization or the way the organization functions. Organization-targeted proactive behaviors may include voicing concerns about an unfair policy and suggesting ways to improve it.

Griffin and colleagues' (2007) model and Parker and Collins' (2010) model are not mutually exclusive. The behaviors in the Parker and Collins model, which categorizes behavior based on form, can also vary in terms of their target, as categorized by Griffin and colleagues' model. For

example, Parker and Collins name *voice* as an example of a proactive work behavior, which involves raising innovative suggestions and modifications to standard procedures. An employee could direct voice behaviors at a number of different targets. A nurse, for instance, may speak up in a meeting with a suggestion for improving the way they deliver medications to one of their particularly time-consuming patients; thus, the behavior is target at the nurse's individual task. The nurse could, similarly, use voice behavior to suggest a new communication flow between the all the nurses in the unit that would increase efficiency for the whole team; the voice behavior would then be targeted toward team members. Alternately, the same nurse could suggest changes to the patient forms that increases uniformity and simplicity across all units in the hospital; this example of voice behavior would be targeted at improving the organization as a whole.

In this paper, I base my conceptualization of proactive behavior primarily on the Griffin et al. (2007) model in that I will examine reactions to individual task, team member, and organization member proactive behavior. Because this model focuses on the impact of uncertainty on how employees engage in proactive behavior, it fits most closely with my model of proactive behavior during times of organizational crisis. However, throughout the paper I will also base exemplar behaviors on Parker and Collins' (2010) model as well.

Antecedents. Research has identified many antecedent factors associated with employee proactive behavior. Some predictors of proactive behavior are worker characteristics, such as proactive personality (Parker & Collins, 2010), greater flexible role orientation (Parker et al., 2006), greater role breadth self-efficacy (Crant, 2000; Parker et al., 2006), and higher desire for control (Ashford & Black, 1996). Overall, these studies signify that when employees are more open to acting in ways that go beyond their typical job duties, and when they have the desire to initiate change, they are more likely to engage in proactive behaviors. In other words, this

suggests that proactive behavior is partly driven by individual differences. Other antecedents are job or organizational characteristics, including increased job autonomy (Hornung & Rousseau, 2007; Parker et al., 2006; Tummers, Kruijen, Vijverberg, & Voeselek, 2015), supportive organizational culture (Crant, 2000), increased job latitude, and greater job complexity (Ghitulescu, 2013).

Using their taxonomy, Parker and Collins (2010) were able to empirically test antecedents of specific types of proactive behavior. Conscientiousness, for example, positively predicts proactive P-E fit behaviors but is unrelated to other proactive behaviors, as the drive to be dependable and thorough would lead individuals to want to better fit within the organization rather than changing the external environment. However, role breadth self-efficacy and felt responsibility for change positively predict proactive work behaviors and proactive strategic behaviors, but do not predict proactive P-E fit behaviors. This is thought to be a result of the “risky” nature of proactive work and strategic behaviors, which aim to challenge the organization’s status quo. Employees with greater self-efficacy or felt responsibility will likely be more persistent and confident in their abilities to enact such changes. Thus, there exist some antecedents that may drive some specific proactive behaviors, rather than proactivity in general.

Through a review of the literature, Bindl and Parker (2011) developed a model of the proximal, motivational antecedents and distal, individual or situational antecedents of proactive behavior. Distally, Bindl and Parker (2011) identify individual differences such as cognitive ability and conscientiousness as positive predictors of proactive behavior. Situational factors such as transformational leadership and coworker support are also identified as distally predicting proactive behavior. Bindl and Parker posit that such individual and situational factors influence employee proactive behavior via cognitive and motivational antecedents. For instance,

cognitive ability and conscientiousness can influence an individual's self-efficacy and perceived capability of carrying out proactive behaviors. Other factors such as transformational leadership can influence employees' motivation and interest in enacting proactive behaviors.

Griffin et al. (2007) also identified several antecedents of proactive behaviors based on their model. In line with other research on antecedents of proactive behavior, they found role-breadth self-efficacy to positively predict individual task, team, and organization proactive behaviors. In terms of differential predictors, they also found that team support positively predicts team proactive behavior and organizational commitment positively predicts organizational proactive behavior.

Overall, the extant literature identifies several individual and environmental characteristics that may drive proactive behavior at work. Role breadth self-efficacy, in particular, is mentioned quite often as important in allowing individuals to engage in proactive behaviors. Individuals who are more confident in their ability to work beyond the context of their specific work role, as proactivity necessitates, are more likely to feel comfortable engaging in proactive behaviors. However, such individual drivers may also interact with organizational factors, such as support from supervisors or peers, in predicting whether or not proactive behavior is likely to occur. To some extent, the antecedents discussed suggest that the decision to engage in proactive behavior is largely dependent on the ability of the individual to predict the outcome of their behavior, as well as their ability to cope with the predicted outcome.

Outcomes and Reactions. Generally, proactive behavior is linked with increased individual task performance as well as self- and supervisor-ratings of performance (Ashford & Black, 1996; Bindl & Parker, 2011; Grant et al., 2009; Griffin et al., 2007; Morrison, 1993). Researchers posit these relationships could result from increased knowledge gained by proactive employees, better

relationships with supervisors due to engaging in proactive behaviors, or possibly being better able to tailor aspects of one's job to match one's skills and needs (Bindl & Parker, 2011).

Proactive behaviors of new employees, specifically taking charge, have been linked to increased job satisfaction (Morrison, 1993); this is partially due to the increased feedback and socialization new employees receive when they engage in information-seeking proactive behaviors. Proactive behavior has also been linked more broadly to career satisfaction (Seibert et al., 2001), because of the supposed rewards and influence these behaviors afford the employee.

Although proactive behavior has been linked to many positive outcomes, individuals may not always benefit from performing these behaviors. Much of the research that has found negative outcomes of proactive behavior suggests that these consequences are in part due to attributes and reactions of the employee's supervisor. Siebert et al. (2001) found voice behaviors, specifically, were associated with slower salary progression and promotion rate. They posit this relationship to be a consequence of vocal employees' tendency to challenge the organization's status quo and the subsequent repercussions from leadership. In some contexts, leaders may feel threatened or embarrassed by subordinate proactive behavior; thus, only some leaders will reward employees' proactive behavior (Fuller et al., 2015). Specifically, Fuller and colleagues found that supervisors are more likely to reward proactive behaviors if the supervisors themselves feel personally responsible for organizational change. Supervisors who are not personally invested in making such changes, therefore, do not support their employees' proactive behavior. Grant et al. (2009) found that for proactive behaviors to be rewarded, supervisors must interpret the behavior to be benevolent or positive in nature; this was found to occur when supervisors valued prosocial behaviors or had low negative affect.

Individual differences of the employee can also impact how the supervisor interprets proactive behaviors. Chan (2006) found that when individuals possessed higher situational-judgment effectiveness, or the ability to judge and respond to situations, their proactive behavior was associated with higher supervisory ratings, job satisfaction, perceived supervisor support, and organizational commitment. Individuals with high political skill are also more likely than individuals with low political skill to receive higher supervisory ratings when they behave proactively (Sun & van Emmerik, 2015). Overall, these studies suggest that when individuals are better at understanding the environment and predicting a priori how their behavior will be perceived, they tend to receive more positive supervisory ratings and other performance outcomes.

Researchers have posited that employee gender may have an impact on reactions to proactive behavior (A. M. Grant et al., 2009), although this idea has received little empirical research. While proactive behavior has not received much attention in the gender discrimination literature, other contextual behaviors such as altruism, helping behaviors (Heilman & Chen, 2005) and other OCBs (Kidder & Parks, 2001) have been found to lead to differential outcomes for male and female employees, generally with men receiving more positive evaluations from supervisors and other raters for such behavior. As discussed earlier, helping behaviors and other OCBs are distinct from proactive behaviors; proactive behaviors are inherently anticipatory and change-oriented, while OCBs need not be. Most important, unlike helping behaviors (e.g., Heilman & Chen, 2005; Kidder & Parks, 2001), proactive behaviors are not inherently communal (Griffin et al., 2007) and are more agentic in nature as they involve initiating change. Because of these differences, there is reason to believe that employee gender relates to proactive behavior outcomes in a way that is unique from outcomes of OCBs. Again, this thesis focuses on how an

employee's gender may influence ratings from supervisors when engaging in proactive behaviors.

Overall, research suggests that the context of the proactive behavior is extremely important in predicting how the behavior will be received. In situations where there is a supportive leader and the employee is able to foresee positive consequences of their behavior, proactivity is likely to be met with rewards. However, should the leader be indifferent to organizational change, or the employee be perceived as being inappropriate or threatening, proactive behaviors are most likely to be viewed negatively. As mentioned previously, one additional factor in determining outcomes of proactivity that has received less attention may be the employee's gender.

Social Role Theory

Eagly's (1987) social role theory discusses the impact of gender roles on how individuals perceive and interact with one another. A gender role is defined as shared expectations about appropriate qualities and behaviors of individuals based on their socially identified gender (Eagly 1987); that is, the gender that others prescribe to that individual based on visual and social cues. Gender roles incorporate stereotypes and norms regarding individuals' attributes and behaviors. A stereotype is defined as a shared set of beliefs about an individual based on his/her social category (Macrae & Bodenhausen, 2000). A norm represents globally understood rules and standards that guide or constrain social behavior (Cialdini & Trost, 1998). Gender roles are posited to be comprised of both descriptive and prescriptive norms and stereotypes (Eagly, 1987). A descriptive norm is a generally held expectation regarding what members of a certain group actually do; a prescriptive norm is a generally held expectation regarding what members of a certain group ideally ought to do (Cialdini & Trost, 1998; Fiske & Stevens, 1993). That is,

gender roles include not only what is perceived as typical attributes/behaviors for men and women, but normative expectations for desirable qualities of men and women.

The female gender role typically includes *communal* attributes and behaviors (Eagly, 1987; Eagly & Karau, 2002). These may include qualities such as nurturing, helping, caring for others, and friendliness. The male gender role is typically characterized with *agentic* attributes and behaviors (Eagly, 1987; Eagly & Karau, 2002). These may include being assertive, aggressive, controlling, and confident. Social role theory claims that individuals who are perceived to be either male or female are associated with these agentic or communal stereotypes, respectively. These stereotypes are then presumed to reflect how this individual does act (descriptive norm) and how this individual should act (prescriptive norm).

There is a large body of literature examining the effect of gender roles in the workplace. In fact, the conceptualization of gender roles is thought to be highly informed by the roles men and women historically held in the workplace and at home (Eagly, 1987). Researchers have found that many seemingly universal workplace behaviors are indeed actually gendered in nature, such as OCBs. Authors have examined components of OCBs, based on previous theory and research, and found that sportsmanship and civic virtue OCBs were found to fit within the masculine, agentic gender role (Kidder & Parks, 2001), whereas altruistic, courteous, and helping behaviors align with the feminine, communal role (Heilman & Chen, 2005; Kidder & Parks, 2001). Heilman and Chen's (2005) research lends empirical support as well, finding that individuals view helping and altruistic behaviors as communal and feminine, which drives their reactions to these behaviors. Researchers have also provided theoretical and empirical support that managerial and leadership behaviors align more closely with male, agentic gender roles (Eagly & Karau, 2002). This, again, impacts how individuals respond to these behaviors and is

suggested as the reason female leaders are often rated by others as less competent, likable, and effective compared to male leaders (Eagly & Karau, 2002; Rudman & Glick, 2001).

Proactive behaviors, by definition, are active and change-oriented (Bindl & Parker, 2011; Crant, 2000; Griffin et al., 2007; Parker & Collins, 2010). For example, Griffin and colleagues' (2007) exemplar behaviors for their proactive behavior categories involve self-initiating and developing new techniques and methods, as well as vocalizing suggestions for the future of the organization. Many proactive behaviors, especially those used as operationalizations in empirical studies of proactivity, fit closely within the boundaries of what gender role scholars consider to be agentic, masculine behaviors. For example, researchers have used job-change negotiating, information seeking, issue-selling, and taking charge as operationalizations of proactive behavior (Ashford & Black, 1996; Chan & Schmitt, 2000; De Stobbeleir, Ashford, & de Luque, 2010; Fuller et al., 2015; A. M. Grant et al., 2009). These behaviors somewhat mirror operationalizations of agentic behaviors in gender role studies, which include dominance, assertiveness, self-promoting, criticism, and being in charge (Carrier, Louvet, Chauvin, & Rohmer, 2014; Rudman & Glick, 1999; Rudman, Moss-Racusin, Phelan, & Nauts, 2012; Schaumberg & Flynn, 2017). Thus, it is reasonable to propose that proactive behaviors should be studied through the lens of gender role theory.

While some samples show no gender differences in frequency of proactive behavior (Van Dyne & LePine, 1998), several studies have actually found evidence to suggest that men are more likely to engage in proactive behavior than women. For instance, LePine and Van Dyne (1998) found that men were significantly more likely to voice concerns and suggestions than women. Researchers have also found men to engage in more proactive job searching (Kanfer, Wanberg, & Kantrowitz, 2001) and network building behaviors (Claes & Ruiz-Quintanilla,

1998). Griffin and colleagues (2007) found mixed results with regard to gender, with some samples showing greater instances of proactive behavior in men and some samples showing no gender differences. However, while there is mixed evidence that men engage in more proactive behavior than women, there does not seem to be any evidence that may suggest women ever engaging in more proactive behavior than men. Because the male gender role is partially comprised of perceptions of what men typically do, these behaviors seem to be closely related to the agentic masculine gender role, which includes behaviors that are assertive, controlling, and powerful. Although this comparison has been made theoretically, it has not been shown empirically. Thus, I hypothesize that proactive behaviors will be perceived by raters as masculine in nature.

Hypothesis 1: Proactive behaviors will be perceived by raters as agentic/masculine.

Role Congruity Theory

As noted earlier, gender roles are not merely descriptive, but prescriptive as well. This means that the implications of gender roles go beyond simply a generalized expectation of what men and women do; gender roles dictate what men and women *should* do. Role congruity theory suggests that individuals react negatively to those acting in ways that run counter to their respective gender role (Eagly & Karau, 2002). For example, a woman behaving in an assertive or controlling manner is perceived as inconsistent with the female stereotype of being communal. This inconsistency is evaluated negatively by the perceiver, as often happens when experiences are dissonant with expectations (Festinger, 1962).

As discussed earlier, proactive behaviors align closely with male gender roles. Proactive behaviors are active and assertive, which fits with Eagly and Karau's (2002) definition of masculine behaviors as agentic, assertive, controlling, and confident. Therefore, according to role

congruity theory, women displaying proactive behaviors are violating the communal female gender role. This leaves proactive women susceptible to backlash for acting overly agentic.

Backlash Against Agentic Women

Rudman and Glick (2001) describe the negative reactions to agentic women as a “backlash” for violating female gender roles. While men can experience backlash for acting communally (Heilman & Wallen, 2010), this effect is more often found for women acting agentially (e.g., Heilman, Block, & Martell, 1995; Heilman & Okimoto, 2007). Although it is not the focus of this paper, there has been a wealth of research on backlash against women in leadership roles, which are more agentic in nature. Researchers frequently find that women in traditional managerial or leadership roles are evaluated negatively by participants compared to men in similar roles (Heilman & Okimoto, 2007; Heilman & Saruwatari, 1979; Rudman, 1998; Rudman & Glick, 2001; Ryan et al., 2016). Agentic women are perceived as being less effective in their work performance, less hireable (Rudman & Glick, 2001), and more hostile (Heilman & Okimoto, 2007). Women’s stereotype of communality contradicts the masculine role of leader, thus creating an incongruity or dissonance in how female leaders are perceived (Eagly & Karau, 2002; Heilman et al., 1995; Rudman & Glick, 1999). As described in role congruity theory, this dissonance is likely to lead to negative evaluations of the target individual (Eagly & Karau, 2002). Negative workplace evaluations of female leaders can also be explained through Heilman’s (1983) lack-of-fit model, which suggests that when an individual’s perceived social role is incongruous with a workplace role, that individual will be perceived as not fitting within that workplace role. This perceived lack of fit can lead to negative performance evaluations and expectations of effectiveness or success (Heilman, 1983; Heilman & Wallen, 2010).

Findings in the literature suggest that this backlash may be less influenced by the actual perpetration of agentic behaviors by women, but rather the perception of a lack of communality when women occupy agentic roles (Heilman & Okimoto, 2007; Rudman & Glick, 1999). Heilman and Okimoto's (2007) laboratory experiment found that exhibiting clear examples of nurturing or caring behavior mitigated some of the backlash toward female managers. Specifically, agentic female managers were viewed more favorably when information was provided that they were described as being interested in the well-being of their employees. It is important to note that these examples of communality have to be explicit and unambiguous; if the intent of the communal behaviors was described ambiguously (for example, supporting a coworker, but being unclear whether the reasoning was because of organizational policy or genuine interest in helping), agentic women still experienced backlash (Heilman & Okimoto, 2007). Unless explicitly demonstrated, agenticism and communality are assumed to a large extent to be mutually exclusive.

Role (in)congruity can also manifest in differential outcomes for men and women displaying identical behavior. Heilman & Chen (2005) examined in their laboratory study how helping behavior is perceived when performed by male and female employees. They found that men were rewarded for helping coworkers, but women were not. Because helping behavior is associated with female gender roles, it was expected that women would act in this way. When men performed helping behaviors, however, it was viewed as going above and beyond what was expected and, therefore, deserving of a reward. In contrast, because these behaviors were expected of women, they were not perceived as deserving of a reward.

Proactive behaviors, as discussed previously are agentic, and presumably masculine, in nature. Therefore, these behaviors may be perceived as role-incongruent for women. As seen in

the literature, violating female gender roles often has negative consequences for women, manifesting in lower evaluations of performance, competence, and likability (e.g., Heilman & Chen, 2005; Heilman & Okimoto, 2007; Rudman & Glick, 1999). Because proactive behaviors fit within the masculine gender role, men should not be penalized, and in fact may even be rewarded for these behaviors. Thus, it is likely that women who perform proactive behaviors will receive lower evaluations than men who perform proactive behaviors.

Hypothesis 2a: Women who engage in individual task proactive behavior will receive lower evaluations from leaders than men who engage in proactive behavior

Hypothesis 2b: Women who engage in team member proactive behavior will receive lower evaluations from leaders than men who engage in proactive behavior

Hypothesis 2c: Women who engage in organization member proactive behavior will receive lower evaluations from leaders than men who engage in proactive behavior

The Moderating Role of Organizational Crisis

Activation and reliance on stereotypes, of course, do not occur within a vacuum; they interact dynamically with the context in which both the perceiver and the target exist (Macrae & Bodenhausen, 2000). Significant changes or crises within an organization can alter the climate and potentially impact how employee proactive behavior is received. A crisis refers to an unexpected and nonroutine event or series of events that create high levels of uncertainty and threat within the organization (Seeger et al., 1998). Crises can manifest in events such as a sudden decrease in company performance, acquisition by another organization, public exposure of an ethical violation, or many other scenarios. High levels of uncertainty can alter work roles and impact what behaviors are needed or rewarded in an organization (Griffin et al., 2007).

Uncertainty can also be characterized as creating a high degree of ambiguity, which Grant and Ashford (2008) propose as an antecedent of proactive behavior. Because ambiguity and uncertainty create weak situations, where expected behaviors are unclear, it is difficult to pre-specify exactly what tasks and behaviors are necessary for employees (A. M. Grant & Ashford, 2008; Parker et al., 2006). Thus, such situations necessitate employees to engage in more proactive behaviors, to anticipate what might be necessary in circumstances that are difficult to foresee. Increases in proactive behavior may also be a result of the desire to reduce the uncertainty (A. M. Grant & Ashford, 2008). The increased demands and stress associated with uncertainty may be appraised by employees as a challenge stressor, motivating them to perform proactively, in ways that will return the workplace to a stable, well-performing state (Fay & Sonnentag, 2002; Ohly & Fritz, 2010; Ohly, Sonnentag, & Pluntke, 2006).

As work tasks continue to change and organizational contexts become more uncertain, it is harder to predetermine what successful task performance looks like (Bindl & Parker, 2011; Griffin et al., 2007). For this reason, several authors have noted the need to examine aspects of performance outside of traditional models of task and contextual performance (Griffin et al., 2007). Thus, other behaviors, such as proactive behavior, are increasingly important for organizations and their employees to manage changes and uncertainty. Although the importance of context and uncertainty has been noted in the proactive behavior literature, these ideas have received relatively little empirical investigation compared with individual antecedents of proactive behavior (Bindl & Parker, 2011).

While there is a great deal of research broadly on organizational crisis and uncertainty, researchers in this area note conflicting evidence with regard to how exactly organizations respond to crisis (Sarkar & Osipovskyy, 2017). There is evidence to suggest that organizations

adapt and change in the face of crisis (Bromiley, 1991; Miller & Chen, 2004) as well as evidence suggesting that crisis increases organizations' rigidity (Dorsman & Buckley, 2001; Laughhunn, Payne, & Crum, 1980; Shimizu, 2007). On an individual level, theory and literature on stereotyping also suggests conflicting views for how crisis may impact perceptions of female employees' proactive behavior. Therefore, there are two potential theoretical arguments for how women's proactive behavior will be evaluated during times of organizational crisis.

Crisis attenuates backlash. Crises are often an impetus for organizational change (Seeger et al., 1998). When this happens, there is focus on the organization and how it is going to move forward in light of the new circumstances. Research on intergroup relations suggests that stereotyping is reduced when groups have a superordinate goal or identity (Dovidio, Gaertner, & Thomas, 2013). A superordinate goal is compelling and appealing to members of different, conflicting groups; it also requires the resources and energy of both groups in order to be completed (Sherif, 1958). In his seminal paper, Sherif (1958) found that introducing a superordinate goal requiring two groups in conflict to work together was able to reduce intergroup conflict. When individuals of different social groups are recategorized in this way, being viewed as "we" instead of "us versus them," there tends to be a reduction in prejudiced attitudes and behaviors toward the other group (Gaertner & Dovidio, 2000).

In the context of organizational crisis, the heightened uncertainty and need for change may present itself as a superordinate goal for employees. Rooted in Social Identity Theory (Tajfel & Turner, 1986), researchers have posited that high levels of uncertainty acts as a motivator for individuals to strengthen their social identity with a group reflective of the new social environment (Hogg & Mullin, 1999; Kim & Ng, 2008). Furthering this theory, research has found that uncertainty within organizations is associate with stronger organizational

identification for its employees (Kim, Song, & Lee, 2013). Therefore, with a crisis bringing about high levels of uncertainty, employees may cling to their identification with the organization and their coworkers as a coping mechanism. It is possible that a crisis may make this identity as members of that organization more prominent and salient than personal identities as men or women. This would likely lead to a decrease in reliance on gender stereotypes when evaluating others' behaviors.

Additionally, organizational crisis requires higher levels of adaptive and proactive behavior from employees (Griffin et al., 2007). The complex nature of organizational crisis and change typically requires greater coordination and output from members of the organization (Seeger et al., 1998). Under these conditions, proactive behaviors are likely to be viewed positively regardless of who is conducting the behavior. If this is the case, organizational crisis would attenuate the impact of gender on proactive behavior outcomes, leading to less of a backlash for proactive women.

Crisis exacerbates backlash. Although some social psychology research suggests that organizational crises may bring employees together and reduce discrimination, there has also amassed evidence from social, organizational, and cognitive psychology that suggests otherwise. In fact, such research claims that crises may actually increase the existence and severity of discrimination against minorities.

Crisis within an organization brings about high levels of uncertainty (Bordia, Hunt, Paulsen, Tourish, & DiFonzo, 2004; Griffin et al., 2007; Seeger et al., 1998), which is well cited in the organizational psychology literature as a cause of employee stress (Ashford, 1988; Bordia et al., 2004; Kim et al., 2013). Organizational crises also result in potential changes in organizational structures, work tasks, and communication strategies. To this aim, researchers have found

uncertainty resulting from organizational crises to be associated with a lack of perceived control in the workplace (Bordia et al., 2004). With new challenges and the psychological strain that frequently results from the heightened uncertainty (Ashford, 1988; Bordia et al., 2004), organizational crises require employees to expend a greater amount of mental and/or physical effort than is normally needed on the job.

Stereotypes as a cognitive mechanism are designed to limit the amount of mental effort needed to gain information about another person (Macrae, Milne, & Bodenhausen, 1994; Macrae & Quadflieg, 2010). While it is possible to suppress stereotypes and limit their impact on attitudes and decisions, this generally requires active effortful mental regulation (Devine, 1989; Kulik, Roberson, & Perry, 2007; Macrae, Bodenhausen, Milne, & Jetten, 1994). Researchers on stereotype suppression find mixed results. In some cases, individuals are successful at reducing the influence of stereotypes. If one is aware of the relevant stereotype and motivated to act in a non-prejudiced manner (Macrae & Bodenhausen, 2000), the stereotypical thoughts can be actively suppressed and replaced with other, distracting thoughts (Wegner, 1994). While this effect has been supported empirically (Monteith, Spicer, & Tooman, 1998), researchers more often find that individuals are unable to successfully suppress stereotypes. In fact, many have found that attempts to suppress stereotypes actually lead to a rebound effect, causing an increased reliance on stereotypical thoughts and higher levels of prejudice (Kulik, Perry, & Bourhis, 2000; Macrae, Bodenhausen, et al., 1994; Peters, Jelicic, & Merckelbach, 2006; Sherman, Stroessner, Loftus, & Deguzman, 1997). Because successful suppression requires active mental effort, it is most likely to fail when the perceiver is cognitively busy or experiencing increased stress or time pressure (Macrae & Bodenhausen, 2000).

A review of the literature on organizational crisis cites an overwhelming amount of evidence suggesting that leaders' cognitive capabilities are reduced during crises (for a review, see Bundy, Pfarrer, Short, & Coombs, 2017). The increased cognitive demand, coupled with emotional reactions to the crisis, leads to increases in leader pessimism, defensiveness, and ignorance (Kahn, Barton, & Fellows, 2013; Roux-Dufort, 2007; Vaaler & McNamara, 2004). These affective responses from leaders heighten the likelihood of leaders reacting negatively to employees acting outside of their roles.

With additional cognitive effort being expended and negative affective reactions during times of crisis, reliance on stereotypes is likely to increase automatically in order to preserve cognitive and emotional resources of leaders. Therefore, it is possible that organizational crisis will exacerbate the backlash against proactive women, who will be perceived as violating their work and gender roles.

Additional evidence for this hypothesis comes from research on the phenomenon of the glass cliff, the tendency for female leaders to be appointed more often in times of organizational crisis (Ryan et al., 2016). The proposed theory behind this phenomenon claims that this is due to a heightened awareness of perceived masculine and feminine leadership attributes during times of crisis (Ryan, Haslam, & Postmes, 2007). This theory has been corroborated by empirical evidence, suggesting that individuals pay more attention to a leader's gender and agentic/communal attributes when the target is associated with an organization in crisis (Rink, Ryan, & Stoker, 2013). While in the case of glass cliff scenarios this tends to benefit female leaders, a heightened awareness of proactive women's role incongruity would likely lead to increased backlash.

Although, as previously discussed, some research suggests that organizational crisis may attenuate backlash toward agentic women, there is arguably more convincing evidence to suggest otherwise. The ability for members of different identity groups to come together and identify as one unified group generally requires optimal, positive contextual conditions (Allport, 1954). Given the stress and uncertainty during an organizational crisis, the environment simply may not be conducive for allowing this identity restructuring that would result in prejudice reduction. Therefore, I hypothesize that the existence of an organizational crisis will exacerbate backlash toward proactive women.

Hypothesis 3a: Women who engage in individual task proactive behavior during an organizational crisis will receive stronger negative evaluations from leaders than when there is no crisis.

Hypothesis 3b: Women who engage in team member proactive behavior during an organizational crisis will receive stronger negative evaluations from leaders than when there is no crisis.

Hypothesis 3c: Women who engage in organization member proactive behavior during an organizational crisis will receive stronger negative evaluations from leaders than when there is no crisis.

METHOD

Design

This study consisted of a 3 (Proactive behavior type: Individual task, Team member, Organization member) x 2 (Employee gender: Female, Male) x 2 (Organizational context: Crisis, No crisis) experimental design.

Participants

Participants consisted of undergraduate psychology students at a large southeastern university. To be eligible, participants must have been at least 18 years of age and proficient in English. A power analysis using G*power (Faul, Erdfelder, Lang, & Buchner, 2007) was conducted to determine the necessary sample size for a 3x2x2 factorial ANCOVA with 80% power and an $\alpha = .05$. The analysis indicates that a sample size of $n = 132$ is needed to detect an effect size similar to what has been founded in prior research on similar constructs (partial $\eta^2 = .07$; Heilman & Chen, 2005). Thus, approximately 150 participants were recruited, accounting for anticipated attrition and/or ineffectual responding. Participants received classroom research credit for their participation.

The final sample consisted of 158 college students with an average age of 19.5 years. The sample was primarily female (64.6%; male = 34.8%) and racially diverse (42.4%; black = 20.9%; Hispanic = 19.6%; Asian = 10.8%). The majority of participants were very comfortable with reading and writing in English (98.1%). Over half of participants were not employed (58.2%) and about a third were employed part-time (36.1%). Accordingly, only a quarter of participants had been employed in a supervisory position at some point (24.1%).

Materials

Interdependent task. Participants worked with a confederate on an interdependent scheduling task. Participants played the role of a manager in a fictitious organization, where they must work virtually with their subordinate (the confederate) to schedule other employees to work on various projects. The participant and the confederate had set of stipulations around which employees of the organization must be scheduled. In the crisis condition, participants were given a second, similar scheduling task to complete within the same time frame. These materials can be found in Appendix A.

Instant messaging software. Participants and confederates communicated using the instant messaging feature on Skype for Business. The accounts had nondescript usernames, no account pictures, and were the same for all participants.

Measures

Performance evaluation. Performance evaluations consisted of both a relative and an absolute measure of job performance. Employee performance was assessed using a relative performance scale by Black and Porter (1991). This scale has been also utilized in previous research on employee proactive behavior to measure supervisor ratings of job performance (Ashford & Black, 1996; A. M. Grant et al., 2009). Instructions for the scale state: “Thinking about the overall performance of the person you are rating, please indicate how you would rate them relative to others in the same/similar jobs on a percentage basis.” The items include: overall performance, ability to get along with others, completing tasks on time, quality (as opposed to quantity) of performance, and achievement of work goals. Responses are reported on a 9-point Likert-type scale from 1 (*bottom 10%*) to 9 (*top 10%*).

Performance was also assessed with three items by Heilman and Chen (2005). The items include an overall performance rating, “Overall, how would you rate the employee’s performance?”, with a Likert-type scale from 1 (*poor*) to 6 (*excellent*). The other two items include, “In your opinion, how likely is the employee to advance further in the company?” and “How likely do you think the employee is to be successful in their position?” with Likert-type scales from 1 (*very unlikely*) to 6 (*very likely*). Heilman and Chen (2005) reported a reliability of $\alpha = .82$ for these items. The full performance evaluation measure can be viewed in Appendix C.

Reward recommendations. A reward recommendation scale developed by Heilman and Chen (2005) was used to determine to what degree employees should receive work-related rewards. The items asked participants to what extent they would recommend the employee receive a salary increase, promotion, high-profile project, or bonus pay. Responses were reported on a 7-point Likert-type scale from 1 (*would definitely not recommend*) to 7(*would definitely recommend*). The full scale can be viewed in Appendix C.

Competence. A 9-item competence index developed by Rudman and Glick (1999) was used to assess participants’ perceptions of the employee’s competence. Attributes that were rated include: competent, independent, confident, determined, computer-skilled, analytical, ambitious, competitive, and works well under pressure. Each attribute was rated on a 5-point Likert-type scale from 1 (*not at all*) to 5 (*extremely*). The full scale can be viewed in Appendix C.

Perceived agenticism/communality. Two 6-point bipolar adjective scales were adapted from Heilman and Okimoto (2007) to assess the perception of agentic and communal attributes displayed by the target employee. To measure communality, participants rated the degree to which they perceived the employee to be: *supportive–not supportive*, *understanding–not understanding*, *sensitive–insensitive*, and *caring–not caring*. To measure agenticism, participants

rated the degree to which they perceived the leader to be: *strong–weak*, *assertive–not assertive*, *tough–not tough*, *bold–timid*, *active–passive*, and *dominant–submissive*. Heilman and Okitmoto (2007) reported reliabilities of $\alpha = .90$ and $\alpha = .82$, respectively, for these scales. The full scale can be viewed in Appendix C.

Perceived proactivity. As a manipulation check for the proactivity condition, participants were asked to rate the target employee’s level of proactivity using Griffin et al.’s (2007) measure of proactive behavior. The measure has three subscales capturing the three dimensions of their proactive behavior model, *individual task proactivity*, *team member proactivity*, and *organization level proactivity*. The scale consists of 9 items, each rated on a 5-point Likert-type scale from 1 (*very little*) to 5 (*a great deal*). Griffin and colleagues report an average reliability of $\alpha = .91$ for the scale. All items can be viewed in Appendix C.

Participants were also asked to give an overall rating of the extent to which the employee engaged in proactive behaviors on a scale from 1 (*not at all*) to 5 (*a great deal*).

Explicit sexism. As a control, participants’ levels of overt sexism was assessed using the Ambivalent Sexism Inventory (Glick & Fiske, 1996). The measure includes 22 items measuring hostile sexism, or outwardly negative attitudes toward women, and benevolent sexism, or beliefs that women are passive and in need of protection. Items are rated on a 7-point Likert-type scale from 1 (*disagree strongly*) to 7 (*agree strongly*). Sample items include “Women are too easily offended,” “Women should be cherished and protected by men,” and “When women lose to men in a fair competition, they typically complain about being discriminated against.” The authors reported an average reliability of $\alpha = .85$ for the scale. All items can be viewed in Appendix C.

Demographics. Participants filled out a demographic questionnaire that asked their gender, age, level of English proficiency, employment status, and whether they have ever worked in a supervisory position.

Procedure

Upon entering the laboratory room and providing informed consent, participants were told that they would be role playing as an employee in a fictitious organization, of which they were given background information and context. They were told that they would be working virtually with a second participant who was in another room. In reality, this second participant was a confederate trained by the researcher. Participants were told that they were randomly selected to role play a manager and their partner participant (the confederate) was randomly selected to play their subordinate. In reality, all participants were role playing as managers and all confederates were playing subordinates. Participants were read background information on the fictitious organization and the scheduling task (see Appendix A). Within this information, participants were given roles and guidelines for how managers and employees generally complete scheduling tasks. Participants were told to complete the task with their subordinate as accurately as possible, as this is vital to the performance of the organization. The participants were told that, afterwards, they would be evaluating their subordinate's performance when the task is completed.

Participants were randomly assigned to have either a male or female subordinate, which was manipulated by the name used by the confederate: Brad, Steven, Meredith, and Claire. These four names were found in prior studies to reliably evoke an image of either a white male (Brad, Steven) or white female (Meredith, Claire) in a sample of college educated individuals (Milkman, Akinola, & Chugh, 2012, 2015). Confederates conversed with participants using a

pre-written script, which included many phrases and passages that were used consistently across all participants (see Appendix B). To ensure naturalness of the conversation, confederates improvised conversation with participants in between the scripted lines. Although such conversation was not identically scripted, all confederates followed the same guidelines with regard to tone (i.e., neutral), grammar (e.g., proper grammar, no slang or abbreviations), and content (i.e., task-related). Confederates displayed several scripted instances of proactive behavior throughout the conversation by initiating new ways of completing the task that differed from the instructions given to the participant. Examples of such behavior include scheduling by project instead of by employee, scheduling employees before being instructed to do so, and adding color codes to the schedule.

Participants were randomly assigned to one of three proactive behavior conditions (based on Griffin et al., 2007): *individual*, in which the confederate justified their proactivity with reasons of helping themselves personally complete the task; *team*, in which the confederate justified their proactivity with reasons of helping themselves and the participant complete the task together; or *organizational*, in which the confederate justified their proactivity with reasons of helping the organization by completing the task.

Participants were also randomly assigned to the “crisis” or “non-crisis” condition. In the non-crisis condition, participants had 20 minutes, uninterrupted, to complete the one scheduling task with the confederate. In the crisis condition, the researcher appeared 10 minutes into the study and announced that, due to an unexpected error on the part of the researchers, the participant must complete a second scheduling task with their partner within the same time frame. Consistent with the definition of an organizational crisis (Seeger et al., 1998), this

manipulation introduced an unexpected event that threatened participants' ability to complete the task.

Following the 20-minute task, participants no longer spoke with the confederate. A researcher collected the scheduling task and directed participants to a survey on the computer where they were instructed to fill out a performance evaluation of their employee. During this survey, the participant completed all dependent measures as well as demographic questions. The participants were then thanked and allowed to leave. Following all data collection, participants were emailed a debriefing document regarding the true purpose of the study.

RESULTS

The final number of participants in each condition is shown in Table 1. As can be seen, one condition (male employee, organizational proactive behavior, crisis) was left with a small number of participants ($n = 5$), which is also significantly smaller than all other conditions. As such, results involving this condition specifically should be interpreted with caution. The methodological explanations for this occurrence are further explored in the discussion.

Table 2 displays descriptive statistics and correlations for all study measured. All dependent variables were highly, positively correlated with one another suggesting that participants rated employees similarly across all measures. Proactivity correlated positively with all dependent measures, suggesting that the more proactive participants perceived their employees to be, the higher their evaluations of their performance. Participant gender was negatively correlated with both subscales of the Ambivalent Sexism Inventory, suggesting that male participants reported higher levels of benevolent and hostile sexism.

Manipulation Check

As a manipulation check for the employee gender condition, participants entered the name of their employee into the survey. The majority of participants entered the correct name (90.5%). Although 9.5% of participants entered an incorrect name, many entered a name of the correct gender. As the focus of the manipulation was the employees gender, and the name merely a signifier of gender, these cases were considered acceptable. In total, only 4.5% of participants entered an incorrect name of the incorrect gender and, thus, failed the manipulation check. All analyses were conducted both including and excluding failed cases. However, exclusion of these

cases did not significantly alter any results. For this reason, all cases are including in the following analyses.

As a manipulation check for proactivity, participants completed the several proactive behavior measures including three specific measures targeting each possible condition (individual, team, and organizational) as well as a single-item measure of overall proactivity. All participants responded to the overall proactivity measure at or above the scale midpoint (3), indicating that all participants indeed perceived their employee to be at least somewhat proactive. Within the proactive behavior conditions, 5.7% of participants did not correctly rate the employee as high in their targeted proactive condition (i.e., rating employee high on individual proactive behavior when in the individual condition), and thus failed this manipulation check. All analyses were conducted both including and excluding failed cases. However, exclusion of these cases did not significantly alter any results. For this reason, all cases are including in the following analyses.

Hypothesis 1

Hypothesis 1 proposed that participants would rate proactive employees as agentic. A one-sample t-test was conducted to compare the mean agentic rating of employees against the midpoint of the agenticism scale (3.5). Mean ratings of agenticism ($M = 4.83$, $SD = 0.76$) were significantly higher than the neutral scale midpoint, $t(157) = 21.99$, $p < .001$. A one-way ANOVA revealed that ratings of agenticism also did not vary significantly across types of proactive behavior, $F(2,155) = .885$, $p = .415$. These findings support the notion that all proactive employees were perceived to be agentic. However, a paired samples t-test was also conducted to compare mean ratings of agenticism against mean ratings of communality ($M = 4.18$, $SD = 0.91$). The test revealed no significant difference ($t(157) = 0.26$, $p = .792$), meaning

that participants perceived proactive employees to be no more agentic than they were communal. Thus, hypothesis 1 was partially supported in that agenticism ratings were higher than neutral, but not higher than communality ratings.

Hypothesis 2

Hypotheses 2a-c proposed that proactive female employees would receive lower evaluations than proactive male employees across the three proactive behavior types. These hypotheses were tested using a series of 2 (Employee gender) x 3 (Proactive behavior type) ANCOVAs. Employee gender and proactive behavior type were included as independent variables; ambivalent sexism scores and participant gender were included as covariates. As seen in Table 3, no significant effects were found for employee gender or proactive behavior type on any of the four dependent variables (relative performance, absolute performance, recommendations, and competence). Thus, hypotheses 2a-c were not supported. However, participant gender was found to have a marginally significant effect on recommendations and competence ratings. Table 4 shows results for the same analyses excluding participant gender as a covariate. In this case, the results were not impacted by this exclusion.

Hypothesis 3

Hypotheses 3a-c proposed that during a crisis, the discrepancy between proactive male and female employees' evaluations would be larger than when there is no crisis. These hypotheses were tested using a series of 2 (Employee gender) x 3 (Proactive behavior type) x 2 (Crisis condition) ANCOVAs. Employee gender, proactive behavior type, and crisis condition were included as independent variables; ambivalent sexism scores and participant gender were included as covariates. As seen in Table 5, no significant main or interactive effects were found for employee gender, proactive behavior type, or crisis condition on any of the four dependent

variables. Thus, hypotheses 3a-c were not supported. Similar to Hypothesis 2, participant gender showed a marginally significant effect on recommendations and competence ratings.

Table 6 shows the same analyses excluding participant gender as a covariate. Without participant gender, results suggest marginally significant interactions between proactive behavior type and employee gender, as well as proactive behavior type and crisis condition, on ratings of competence. However, due to the sample size of these conditions, results should be interpreted with caution.

Supplemental Analyses

Collapsing across proactive behavior conditions. Although initial analyses suggest some differences in ratings amongst the types of proactive behavior, these results are difficult to interpret as meaningful due to the vastly unequal sample sizes in the conditions. Thus, we ran the above analyses for hypotheses 2 and 3 again, collapsing the sample across all three proactive behavior conditions.

First, one-way (Employee gender) ANCOVAs were run with sexism as a covariate to test the effect of employee gender on ratings across proactive behavior types. These analyses did not yield significant results for any of the four dependent variables, as shown in Table 7. This corroborates the lack of support for hypothesis 2.

Next, 2 (Employee gender) x 2 (Crisis condition) ANCOVAs were run with sexism as a covariate to test the interactive effects of employee gender and crisis on ratings across proactive behavior types. Results are shown in Table 8. These analyses also yielded no significant effects, corroborating the lack of support for hypothesis 3.

Multivariate analyses. Due to the high correlation between the four dependent variables (see Table 2), multivariate analyses of covariance (MANCOVA) tests were conducted to

examine the influence of the manipulations on the combined scores of the dependent measures (relative performance, absolute performance, recommendations, and competence), controlling for ambivalent sexism scores. A one-way MANCOVA showed a non-significant impact of employee gender on evaluation scores, $F(4, 149) = .54, p = .708$, Wilk's lambda = .986. A 2 (employee gender) x 2 (crisis condition) MANCOVA, similarly, showed non-significant effects of employee gender ($F(4, 147) = .57, p = .685$, Wilk's lambda = .985), crisis condition ($F(4, 147) = .45, p = .770$, Wilk's lambda = .988), and the interaction of the two ($F(4, 147) = .64, p = .633$, Wilk's lambda = .643) on evaluation scores. The results of these analyses corroborate the lack of support for Hypotheses 2 and 3.

Gender similarity effects. We also investigated the potential effect of similarity/dissimilarity of a participant's gender and their employee's gender. A series of t-tests were conducted to compare variable means of same gender versus different gender pairs. These tests did not reveal any significant differences.

Gender similarity was then entered into an ANCOVA alongside employee gender and crisis as independent variables, ambivalent sexism as a covariate, and competence as the dependent variable. Proactive behavior was not included as an independent variable due to the complications in interpreting such results due to the unequal sample sizes. Competence was chosen as the dependent variable, as this was the variable that seemed to be most influenced by the manipulations (see results for Hypothesis 3 above). The results revealed a significant interaction between gender similarity and employee gender ($F(1,157) = 5.44, p = .021$), as well as a marginally significant interaction between gender similarity and crisis condition, $F(1,157) = 3.44, p = .066$.

Simple effects tests using an LSD correction were run to examine the interaction between gender similarity and employee gender. As seen in Figure 1, female employees were rated as more competent when rated by another female participant compared to a male participant. However, gender similarity did not impact ratings of male participants. Additionally, when rating an employee of a different gender, male employees were rated as significantly more competent than female employees. Combined, these analyses suggest that female participants rated both male and female employees as more competent than did male participants, which is consistent with previously discussed findings.

Although the interaction between gender similarity and crisis condition was marginally significant, simple effects tests yielded no significant differences between groups.

Participant gender effects. While analyzing the main hypotheses, participant gender showed to have some impact on ratings of employees as a covariate. These effects were investigated further in the above section, which suggests that participant/employee gender similarity impacted ratings on competence scores. However, examining the results in Figure 1 above, the gender similarity effects may actually be reflecting participant gender main effects. Coupled with evidence from prior research that men and women have different motivations when evaluating other women in the workplace (Parks-Stamm, Heilman, & Hearn, 2008), we believed the effects of participant gender warranted further statistical investigation.

In order to more closely examine the effects of participant gender on responses, a series of t-tests were conducted to compare variable means of male and female participants. All variables were tested, and those that vary significantly by gender can be seen in Table 9. Overall, female participants perceived employees as more agentic than did male participants. Additionally, female participants rated employees as more proactive overall than did male

participants. Female participants, more so than male participants, also tended to rate employees more favorably on competence and recommendations for hiring. With regard to control variables, male participants scored significantly higher than female participants on the Ambivalent Sexism Inventory. This is consistent with prior literature on ambivalent sexism (Glick & Fiske, 1996).

Additionally, the analyses reported above for hypotheses 2 and 3 were re-run with modifications. As group sample size posed a threat for interpreting differences across proactive behavior type, this next set of analyses was run collapsing across proactive behavior types. Additionally, to probe further into the impact of participant gender, this was added as an independent variable in the analyses, rather than a covariate.

Hypothesis 2 was re-tested using 2 (Employee gender) x 2 (Participant gender) ANCOVAs with sexism as a covariate. As seen in Table 10, participant gender had a significant main effect on ratings of competence and recommendations. This is consistent with the results found in the aforementioned t-tests, which found female participants reported higher ratings on both outcomes than did male participants. There was also a marginally significant main effect of employee gender on absolute performance ratings. Counter to the hypothesized effect, female employees ($M = 5.31$, $SD = .91$) were actually rated higher on absolute performance than male employees ($M = 5.14$, $SD = .84$).

Hypothesis 3 was re-tested using 2 (Employee gender) x 2 (Participant gender) x 2 (Crisis condition) ANCOVAs with sexism as a covariate. Consistent with the previously discussed analyses, participant gender showed a significant main effect on competence and a marginally significant main effect on job recommendations, with female participants providing generally higher ratings than male participants. Also consistent with previous analyses, employee gender

showed a marginally significant main effect on absolute performance, with female employees receiving higher ratings than male employees. Additionally, as seen in Table 11, there was a marginally significant interaction between employee gender, participant gender, and crisis condition on competence. Simple effects tests suggest that there are differences in ratings only within the non-crisis conditions. As shown in Figure 2, male participants rated male employees as significantly more competent than female employees. Additionally, male participants rated female employees significantly lower than did female participants.

DISCUSSION

The majority of hypotheses were not supported by the data from this experiment. Only hypothesis 1 yielded partial support, showing that participants rated proactive employees as highly agentic. Although participants also rated employees as highly communal, there is some evidence to the fact that the two attributes are not necessarily always mutually exclusive (Heilman & Okimoto, 2007). Proactive behaviors are typically defined with qualities associated with high levels of agenticism (e.g., initiative, influence, power). As proactivity and agenticism/communality have yet to be empirically linked, this study provides initial evidence that there are indeed relationships here that warrant further empirical investigation.

Hypotheses 2 and 3, regarding employee evaluations based on gender, proactive behavior, and organizational crisis were largely unsupported. There are several methodological and theoretical reasons that may explain these findings. Statistically, having an unequal sample size across the proactive behavior conditions may have contributed to a significant decrease in power, making any potential results difficult to uncover. Post hoc power analyses support this notion, showing generally low observed power for each of the analyses. The initial power analysis was calculated based on moderate effect sizes and 80% power. However, this study yielded small effects and low observed power. In such cases, it is possible that, with an increase in sample size and therefore an increase in statistical power, trends in the data may later test as statistically significant. However, the data trends in this study did not follow the hypothesized patterns, which makes it unlikely that an increase in sample size would have altered the statistical results.

Although some results showed to be marginally significant, such results revealed differences in ratings across proactive behavior groups which, given the unequal sample sizes, are too precarious to interpret as meaningful. Specifically, organization-oriented proactive behavior was associated with lower competence ratings than other types of proactive behaviors during times of crisis or when the employee was male. These findings potentially suggest that organizational proactive behaviors are perceived by leaders as being fundamentally different from other proactive behaviors. Prior research has found that organizational proactive behavior has some unique predictors, such as organizational commitment, that do not predict team or individual proactivity (Griffin, Neal, & Parker, 2007). Considering the likelihood that participants did not feel a strong sense of organizational commitment to the fictitious organization (see below for more discussion on that topic), it is possible that this disparity would lead to a lack of support for organization-oriented proactive behavior. However, the organizational condition suffered from a lack of participants due to experimenter and random error. Thus, it is not possible to tell if the patterns of ratings found are grounded in true differences in perception or spurious measurement error.

Methodologically, it is possible that the experimental manipulations did not accurately capture realistic circumstances. As with many laboratory experiments, the lack of real-world fidelity poses an obstacle to eliciting realistic reactions and responses from participants. In this case, participants were pretending to work for a fictitious company, interacting with an “employee” for a mere 20 minutes. This is a very short time in which to form a full impression of this person’s behaviors. The fictitious nature of the manipulation also makes the situation very low-stakes for the participant. Thus, even when a “crisis” was simulated, participants knew that there were no real-world consequences to the work they were completing. Thus, they may not

have reacted strongly enough to be influenced by the situation nor their employee. Although some participants may have faithfully assumed the role of manager of RFJ consulting, it is not possible to know to what extent participants did or did not feel connected to the fictitious job and company. Such manipulations may be strengthened in future experiments by utilizing longer interactions between participants and confederates, as to allow participants to gain a fuller impression of the employee's personality and performance. More importantly, it may be necessary to create higher stakes for the task at hand. For instance, creating a scenario in which participants must complete a task for a monetary reward, or some other tangible outcome that would be meaningful to participants, may elicit a more genuine reaction to the crisis condition. With stronger manipulations, it would be possible to tell if the lack of differences amongst conditions represents a true pattern of behavior rather than methodological error.

As seen in the results, the hypothesized differences in ratings of male and female employees did not yield significant results. Although similar gendered name manipulations have been successful in other studies (e.g., Milkman et al., 2015), it is possible that this was not enough for participants in this experiment to form stereotype-influenced impressions of their employees. Many cues that signal a person's gender, and thus elicit stereotype activation, are visual and auditory, such as a person's hair and voice (Fiske & Tablante, 2015). A lack of such cues, coupled with a gender-neutral script, may have weakened the manipulation of employee gender, leading to a lack of distinction in ratings.

While participants had several instances to observe confederates' proactivity, there was only one opportunity for participants to observe the gender. Although this may be considered a design flaw in the manipulation when trying to mimic a traditional workplace scenario, the lack of gender cues may actually be reflective of virtual workers. In workplaces where coworkers

interact primarily via email or other technologies, it is possible that there are fewer gender cues and, therefore, fewer gender stereotypes being activated. Future research may want to consider degree of virtuality as a boundary condition on gender proactivity stereotypes, measuring rater stereotype activations directly.

Another factor that may have influenced the ratings of employees was the fact that participants were unfamiliar with the task they were asked to complete. In an actual working scenario, it is likely that the manager would have some, if not more, experience completing work tasks than would their subordinates. Although pilot participants were able to complete the task in approximately 20 minutes with only a moderate amount of difficulty, the majority of participants were unable to finish the task during the experiment. Upon review of the experiment transcripts, it appeared to be that participants expressed confusion and a lack of understanding of the task, frequently asking the “employee” for direction rather than leading the process as they were instructed to do. This may have created a dynamic in which the participants were unable to feel as if they were acting a leader. The idea that leaders, in certain circumstances, react negatively to proactive behavior assumes a power dynamic in which the leader may feel threatened or embarrassed by a subordinate’s proactivity (Fuller, Marler, Hester, & Otondo, 2015). Without the leader/subordinate dynamic in the current manipulation, participants may have been responding as if they were rating a peer. In general, there exists evidence that peer ratings often differ from supervisory ratings of performance, either because of different opportunities to observe behavior or different frameworks for interpreting behavior (see Viswesvaran, Ones, & Schmidt, 1996).

In future studies, one of two paths could be taken to address this issue. One path would be to strengthen the leader manipulation. This could be done by providing participants with a

task that they are more familiar with or giving them opportunities to practice and master the task before working with the confederate. This would prevent the participant from having to rely on the confederate for direction and allow them to take on more of a leader role. Alternatively, future studies could address this issue head on by adding a peer condition in addition to the manager condition. By doing this, researchers would be able to see if leadership status matters in how proactive behavior is received.

Future Directions and Conclusion

The current study posed several methodological threats to the strength of manipulations, which may have led to the lack of support found for the main hypotheses. Future studies on this topic would benefit from utilizing a sample of working adults rather than a simulated student sample. Such studies would also benefit from the ability to assess perceptions of proactive employees over a longer period of time.

However, while the manipulations in the study may have failed in accurately simulating a traditional workplace scenario, it is possible that the virtual interactions in the experiment more accurately simulated a virtual team, where physical gender cues are limited compared to face-to-face interactions. Considering the increasing prevalence of virtual work and telecommuting, future research should consider virtuality as a potential boundary condition on perceptions of gender and proactivity. Although the current study lacks a face-to-face comparison, future studies should examine differences in perceptions across varying levels of virtuality.

In addition, future studies should more closely examine the role of leader characteristics in conjunction with the situational characteristics such as crisis. Transcripts as well as anecdotal evidence from the researchers suggest that some participants did indeed react to the crisis situation with the hypothesized increase of stress. Many participants expressed to researchers

their frustration with their employees' proactive behavior. However, as evidenced by the results, these responses were variable; such reactions were not distinct across the lines of the manipulated conditions. This suggests that there are other factors, likely individual differences between leaders, that also influence responses. Previous research points to some leader characteristics that may influence reactions to proactive behavior, such as felt responsibility for change (Fuller, Marler, Hester, & Otondo, 2015). Future research in this area should work to integrate individual leader differences and situational constraints and examine their joint impact on perceptions of proactive behavior.

This topic is of great importance to organizations and managers who wish to promote proactive behavior amongst their employees. As this study began to examine, there may exist some boundary conditions to employees' ability to successfully and easily engage in beneficial proactive behaviors. When deciding to place a heavy emphasis on proactivity, it is necessary for the organization to examine the surrounding context, including the demography of its workforce, the current performance environment, and perhaps the locations from which employees work. Understanding such contextual factors and their impact on perceptions of employee behavior will aid in clearer predictions of the benefits or struggles of having a highly proactive workforce.

APPENDIX A: TABLES

Table 1: Sample Size by Condition

		Individual	Team	Organizational	Total
No crisis	Male	13	17	13	43
	Female	16	10	18	44
	Total	29	27	31	87
Crisis	Male	17	13	5	35
	Female	13	13	10	36
	Total	30	26	15	71
Total	Male	30	30	18	78
	Female	29	23	28	80
	Total	59	53	46	158

Table 2: Correlations and Means of Study Variables

	1	2	3	4	5	6	7	8	9	10	11
1. Relative Performance	<i>.91</i>										
2. Absolute Performance	.84**	<i>.93</i>									
3. Recommendations	.75**	.77**	<i>.95</i>								
4. Competence	.66**	.70**	.69**	<i>.88</i>							
5. Agenticism	.36**	.42**	.43**	.53**	<i>.85</i>						
6. Communalism	.51**	.51**	.46**	.51**	.36**	<i>.85</i>					
7. Proactivity	.59**	.67**	.69**	.73**	.47**	.49**	<i>.95</i>				
8. Participant Gender	.02	.07	.15	.15	.13	-.03	.14	-			
9. Benevolent Sexism	.06	.01	.02	.02	.01	.16*	-.01	-.22**	<i>.80</i>		
10. Hostile Sexism	.01	-.05	-.01	-.01	.00	.14	.01	-.38**	.41**	<i>.88</i>	
11. Ambivalent Sexism	.04	-.03	.003	.00	.01	.18*	.00	-.36**	.81**	.87**	<i>.88</i>
Mean	7.96	5.25	5.44	4.29	4.83	4.81	4.34	1.66	3.94	3.41	3.67
SD	1.22	.88	1.45	.61	.76	.91	.70	.51	.98	1.18	.91

Note. Cronbach's alpha reliability estimates are in italics along the diagonal.

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

Table 3: 2 (Gender) x 3 (Proactive Behavior) ANCOVAs With Participant Gender Covariate

Covariate(s)	Relative Performance		Absolute Performance		Recommendations		Competence	
	<i>F</i>	<i>p</i>	<i>F</i>	<i>p</i>	<i>F</i>	<i>p</i>	<i>F</i>	<i>p</i>
Participant Gender	.17	.679	.52	.473	3.57	.061	3.80	.053
Ambivalent Sexism	.63	.429	.04	.841	.83	.363	.81	.370
<hr/> IV(s) <hr/>								
Employee Gender	.99	.323	2.18	.142	1.04	.309	.64	.425
Proactive Behavior	.05	.955	.27	.761	.07	.936	.79	.456
Gender x PB	.79	.457	1.16	.318	1.62	.202	1.77	.174

Note. Corrected model observed power estimates = .198, .405, .555, .691.

Table 4: 2 (Gender) x 3 (Proactive Behavior) ANCOVAs Without Participant Gender Covariate

Covariate(s)	Relative Performance		Absolute Performance		Recommendations		Competence	
	<i>F</i>	<i>p</i>	<i>F</i>	<i>p</i>	<i>F</i>	<i>p</i>	<i>F</i>	<i>p</i>
Ambivalent Sexism	.48	.491	.01	.944	.06	.815	.04	.852
<hr/>								
IV(s)								
Employee Gender	.99	.322	2.18	.142	1.06	.306	.62	.433
Proactive Behavior	.05	.950	.23	.796	.01	.987	.66	.519
Gender x PB	.80	.451	1.21	.300	1.78	.172	2.09	.127

Note. Corrected model observed power estimates = .201, .370, .325, .431.

Table 5: 2 (Gender) x 3 (Proactive Behavior) x 2 (Crisis) ANCOVAs With Participant Gender Covariate

Covariate(s)	Relative Performance		Absolute Performance		Recommendations		Competence	
	<i>F</i>	<i>p</i>	<i>F</i>	<i>p</i>	<i>F</i>	<i>p</i>	<i>F</i>	<i>p</i>
Participant Gender	.01	.906	.22	.638	3.25	.074	2.87	.093
Ambivalent Sexism	.48	.488	.18	.673	1.03	.311	1.08	.301
<hr/> IVs <hr/>								
Employee Gender	.80	.372	2.09	.150	1.32	.253	.29	.595
Proactive Behavior	.27	.763	.27	.763	.08	.922	.99	.375
Crisis	.35	.555	.44	.510	.02	.893	1.74	.189
Gender x PB	.88	.418	1.16	.318	1.12	.331	2.12	.123
Gender x Crisis	.14	.707	.02	.897	.43	.511	.81	.371
PB x Crisis	1.51	.226	2.08	.129	.33	.723	2.04	.133
Gender x PB x Crisis	.20	.817	1.55	.217	.69	.502	.52	.598

Note. Corrected model observed power estimates = .322, .681, .551, .787.

Table 6: 2 (Gender) x 3 (Proactive Behavior) x 2 (Crisis) ANCOVAs Without Participant Gender Covariate

Covariate(s)	Relative Performance		Absolute Performance		Recommendations		Competence	
	<i>F</i>	<i>p</i>	<i>F</i>	<i>p</i>	<i>F</i>	<i>p</i>	<i>F</i>	<i>p</i>
Ambivalent Sexism	.50	.482	.07	.791	.13	.719	.18	.670
IV(s)								
Employee Gender	.80	.372	2.06	.154	1.19	.227	.22	.638
Proactive Behavior	.29	.750	.28	.758	.03	.974	1.11	.332
Crisis	.36	.548	.48	.489	.00	.979	2.02	.157
Gender x PB	.89	.414	1.20	.304	1.21	.302	2.55	.081
Gender x Crisis	.15	.701	.02	.877	.57	.452	.64	.424
PB x Crisis	1.57	.211	2.27	.107	.48	.623	2.57	.080
Gender x PB x Crisis	.21	.814	1.53	.220	.52	.594	.57	.567

Note. Corrected model observed power estimates = .336, .680, .373, .661.

Table 7: Hypothesis 2 Across Proactive Behavior Conditions

Covariate(s)	Relative Performance		Absolute Performance		Recommendations		Competence	
	<i>F</i>	<i>p</i>	<i>F</i>	<i>p</i>	<i>F</i>	<i>p</i>	<i>F</i>	<i>p</i>
Ambivalent Sexism	.33	.565	.04	.847	.03	.874	.01	.930
<hr/>								
IV(s)								
Employee Gender	1.16	.282	2.51	.115	1.39	.240	1.07	.302

Note. Corrected model observed power estimates = .166, .280, .166, .138.

Table 8: Hypothesis 3 Across Proactive Behavior Conditions

Covariate(s)	Relative Performance		Absolute Performance		Recommendations		Competence	
	<i>F</i>	<i>p</i>	<i>F</i>	<i>p</i>	<i>F</i>	<i>p</i>	<i>F</i>	<i>p</i>
Ambivalent Sexism	.20	.658	.09	.767	.00	.995	.00	.951
<hr/>								
IV(s)								
Employee Gender	1.31	.254	2.63	.107	1.60	.208	1.02	.314
Crisis	.18	.669	.45	.503	.00	.965	1.19	.276
Gender x Crisis	.70	.404	.37	.543	1.21	.274	.02	.880

Note. Corrected model observed power estimates = .186, .269, .208, .187.

Table 9: Mean Differences of Ratings by Participant Gender

		Mean	SD	<i>t</i>	<i>df</i>	sig.
Recommendations	Male	5.18	1.55	-2.025	152	.045
	Female	5.61	1.39			
Competence	Male	4.14	1.55	-2.319	155	.022
	Female	4.38	.59			
Agenticism	Male	4.66	.89	-1.924	88.71	.058
	Female	4.93	.68			
Proactivity	Male	4.20	.69	-1.962	155	.052
	Female	4.43	.70			
Ambivalent Sexism	Male	4.09	.76	4.381	155	.000
	Female	3.47	.90			

Note: Female participant $n = 102$, Male participant $n = 55$.

Table 10: 2 (Employee Gender) x 2 (Participant Gender) ANCOVAs

Covariate(s)	Relative Performance		Absolute Performance		Recommendations		Competence	
	<i>F</i>	<i>p</i>	<i>F</i>	<i>p</i>	<i>F</i>	<i>p</i>	<i>F</i>	<i>p</i>
Ambivalent Sexism	.35	.558	.01	.934	.54	.462	.45	.481
<hr/>								
IV(s)								
Employee Gender	1.49	.225	3.41	.067	1.60	.208	1.40	.239
Participant Gender	.20	.655	.94	.335	4.27	.041	5.60	.019
Employee x Participant	.42	.520	.94	.335	.23	.629	.21	.647

Note. Corrected model observed power estimates = .170, .377, .471, .541.

Table 11: 2(Employee Gender) x 2 (Participant Gender) x 2 (Crisis) ANCOVAs

Covariate(s)	Relative Performance		Absolute Performance		Recommendations		Competence	
	<i>F</i>	<i>p</i>	<i>F</i>	<i>p</i>	<i>F</i>	<i>p</i>	<i>F</i>	<i>p</i>
Ambivalent Sexism	.08	.775	.06	.802	.44	.508	.67	.414
<hr/> IV(s) <hr/>								
Employee Gender	1.49	.224	3.43	.066	1.91	.169	1.37	.243
Participant Gender	.17	.685	.81	.369	3.61	.059	5.44	.021
Crisis	.36	.548	.27	.602	.12	.734	.32	.570
Employee x Participant	.30	.588	.65	.422	.19	.662	.07	.793
Employee x Crisis	.27	.603	.03	.875	.46	.498	.65	.420
Participant x Crisis	.51	.478	.02	.885	1.21	.274	2.04	.155
Employee x Participant x Crisis	.73	.394	2.29	.133	.62	.431	3.44	.066

Note. Corrected model observed power estimates = .226, .447, .508, .746.

APPENDIX B: FIGURES

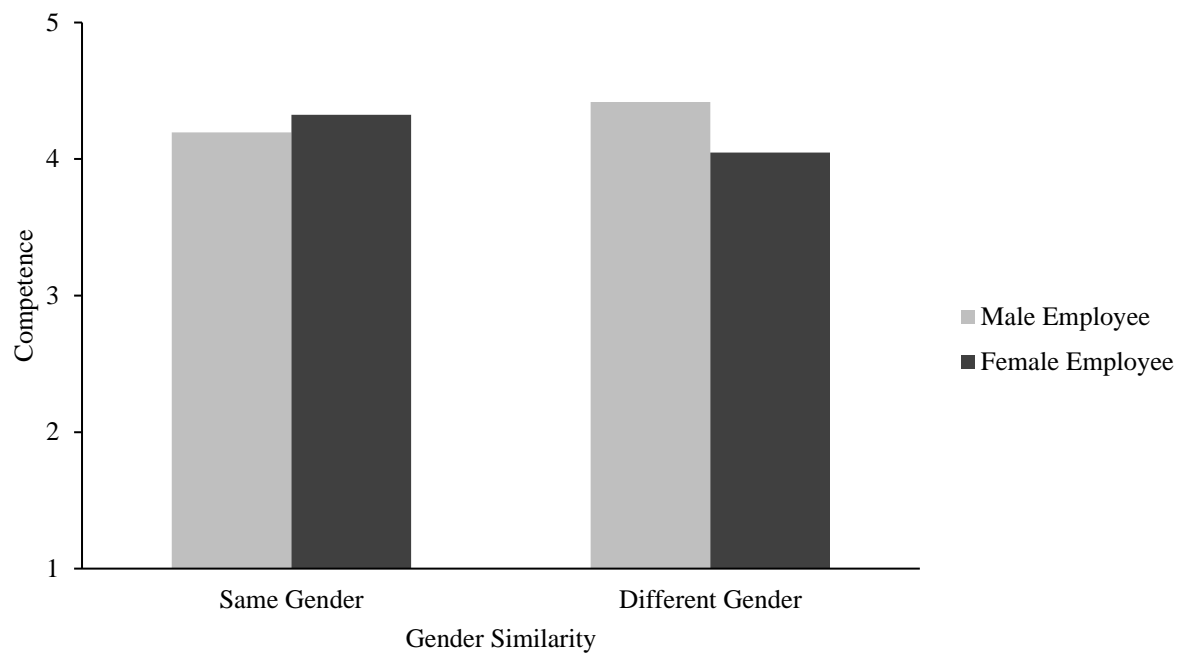


Figure 1: Gender Similarity x Employee Gender Interaction on Competence

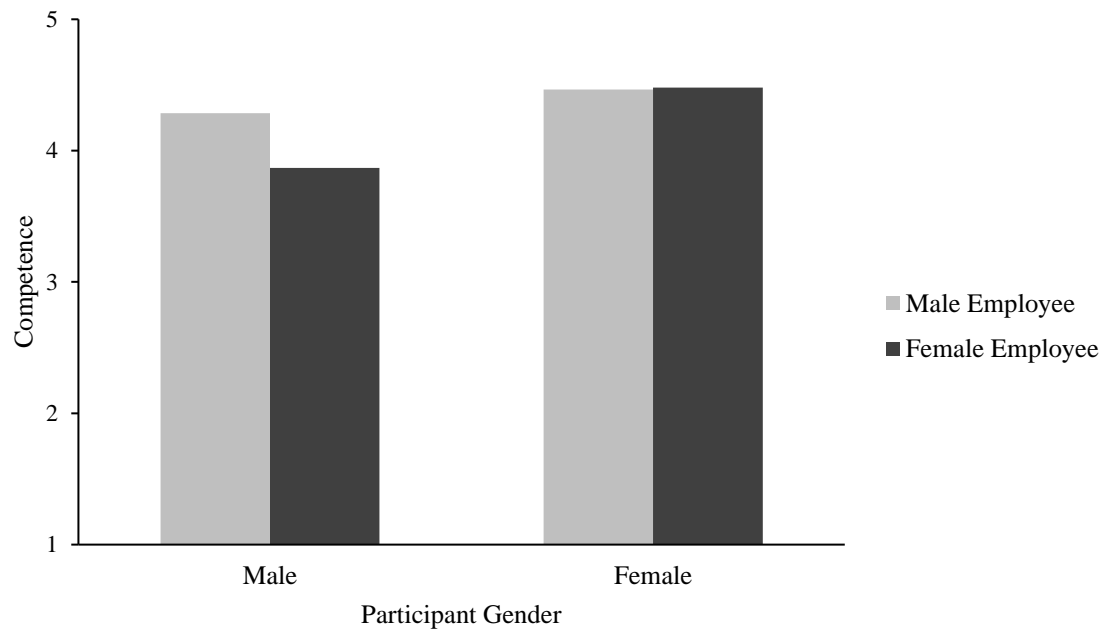


Figure 2: Participant Gender by Employee Gender Interaction in No-Crisis Condition

APPENDIX C: UCF IRB OUTCOME LETTER



University of Central Florida Institutional Review Board
Office of Research & Commercialization
12201 Research Parkway, Suite 501
Orlando, Florida 32826-3246
Telephone: 407-823-2901 or 407-882-2276
www.research.ucf.edu/compliance/irb.html

Determination of Exempt Human Research

From: **UCF Institutional Review Board #1**
FWA00000351, IRB00001138

To: **Nicole I Carusone**

Date: **February 03, 2018**

Dear Researcher:

On 02/03/2018, the IRB reviewed the following activity as human participant research that is exempt from regulation:

Type of Review: Exempt Determination – Category 2 – Adult Participants
n=200
Project Title: Team Performance Study
Investigator: Nicole I Carusone
IRB Number: SBE-17-13638
Funding Agency:
Grant Title:
Research ID: N/A

This determination applies only to the activities described in the IRB submission and does not apply should any changes be made. If changes are made and there are questions about whether these changes affect the exempt status of the human research, please contact the IRB. When you have completed your research, please submit a Study Closure request in iRIS so that IRB records will be accurate.

In the conduct of this research, you are responsible to follow the requirements of the [Investigator Manual](#).

This letter is signed by:

A handwritten signature in black ink, appearing to read "J Neal-Jimenez", written over a horizontal line.

Signature applied by Jennifer Neal-Jimenez on 02/03/2018 11:06:21 AM EST

Designated Reviewer

APPENDIX D: MATERIALS

Background information

RFJ Consulting is a large firm based out of Orlando, FL. Their consultants partner with several large businesses around the state to assist them on various business-related projects. For example, consultants may help companies hire new employees, develop new training programs, or implement new business strategies. Projects that RFJ consultants work on are extremely important and time sensitive, as partner organizations are paying consultants to complete projects accurately and by strict deadlines. Not only is it important for the partner organizations that RFJ consultants complete projects on time, but it is also necessary in order for RFJ to continue receiving business and maintain their reputation as a leading business consulting firm.

Your job:

As a member of the Human Resources department for RFJ Consulting, part of your job involves scheduling consultants for important projects. The managers/supervisors and HR employees on your team are vital to ensuring the right people are working at the right times, so that project deadlines are met.

Scheduling procedures:

Project scheduling at RFJ takes place in 2-week intervals and is completed by an HR manager and one of their team members. Generally, it takes about 15 minutes for the HR manager and HR employee to complete a schedule for one group of consultants.

Typically, when scheduling, the manager will begin by scheduling out project leaders while their employee deals with consultants who are taking time off. From there, the manager will assign their employee to schedule out one consultant at a time. The manager helps to figure out scheduling conflicts and potential issues.

The final schedule should look similar to the one below. Within the cells, it is generally denoted with the number of the project they are working on, or an X if they are unavailable to work.

Name	Week 1					Week 2				
	M	T	W	R	F	M	T	W	R	F
A	1	1	1	1	2	2	3	3	3	3
B	X	X	X	2	2	2	2	2	2	2
C	1	1	1	1	1	3	3	3	3	3
D	2	2	X	X	X	2	2	2	3	3
E	1	1	1	2	2	2	3	3	3	3

Task 1

Based on the stipulations below, please schedule employees to projects for the next 2 weeks. One “full working day” consists of 1 consultant working on a project for 1 day. For example, if 2 consultants are working on the same project on Monday, this would be considered 2 full working days toward that project. Project leaders have more experience working with those specific projects, and should prioritize their own projects when possible. However, remember meeting project deadlines is the most important.

Consultant Name	Week 1					Week 2				
	M	T	W	R	F	M	T	W	R	F
Richie										
Elaine										
Jamie										
Jimmy										
Alyssa										

PROJECTS:

Project 1 – Requires 16 full working days (must have 2 people working at the same time)

Project 2 – Requires 14 full working days (can be completed by anyone)

Project 3 – Requires 11 full working days (can be completed by anyone)

CONSULTANTS:

Richie – leader on project 1

Elaine – leader on project 2

Jamie – leader on project 3

Jimmy – taking vacation Wednesday week 1 – Tuesday week 2

Alyssa – part time, can only work 3 days per week

Task 2

Consultant	Week 3					Week 4				
Name	M	T	W	R	F	M	T	W	R	F
Richie										
Elaine										
Jamie										
Jimmy										
Alyssa										

PROJECTS:

Project 3 – Extended by 1 week, requires 10 more full working days (can be completed by anyone)

Project 4 – Requires 12 full working days (can be completed by anyone)

Project 5 – Requires 19 full working days (must have at least 2 people working at one time)

CONSULTANTS:

Richie – Taking vacation Monday-Friday week 4

Elaine – leader on project 4

Jamie – leader on project 3

Jimmy – leader on project 5

Alyssa – part time, can only work 3 days per week

APPENDIX E: CONFEDERATE SCRIPTS

Individual/Crisis

INTRODUCTION

Begin with:

Confederate: **Hey! My name's [Meredith/Claire/Brad/Steven]. How's it going?**

IF participant asks any more personal questions, provide any of the following applicable responses:

Participant: What class are you doing this for?

C: I'm doing it for credit for gen psych

P: What year are you?

C: Sophomore

IF participant tries to initiate more personal conversation, switch topics to the task by saying:

C: Okay, the RA just came in and said to make sure we focus on talking about the task. So I guess we should get started.

Otherwise, after introductions, say:

C: Okay, I guess we should get started.

TASK COMPLETION

Begin with:

C: **Let's both read it first so we can figure out what we're supposed to do. Let me know when you're done**

P: Okay, I'm done

C: Cool, me too

C: **So I know it says that usually the manager usually does project leaders first, but I'm actually not sure if that's the best way to do it**

C: **I think we should actually schedule by project. Some of the projects require more time than others, so those should probably be a priority. I think that will help me organize it better in my head so that I can get through it quicker**

....

C: Okay, here you go. I scheduled out [NAME] for Project [#] on [XXX] days. I also went ahead and scheduled [NAME] for Project [#]. It was easier for me to look at it with that filled in also

Crisis – 10 minutes in

C: Oh, wait a minute. Did the ra just come in your room?

P: Yeah, we have to do another one now.

C: Okay, I guess we should figure out how to best do this.

C: Here, why don't you finish up typing in what we have for the last one and while you're doing that I'll organize the new information. This way I can get a jump on the next one

Work on tasks

C: I don't really like the way the example has the schedule block filled in. It looks very confusing

C: I think I'm going to change the format of the final schedule. I'm color coding it by project. That makes it a lot easier for me to see what's going on

Individual/No crisis

INTRODUCTION

Begin with:

Confederate: **Hey! My name's [Meredith/Claire/Brad/Steven]. How's it going?**

IF participant asks any more personal questions, provide any of the following applicable responses:

Participant: What class are you doing this for?

C: I'm doing it for credit for gen psych

P: What year are you?

C: Sophomore

IF participant tries to initiate more personal conversation, switch topics to the task by saying:

C: Okay, the RA just came in and said to make sure we focus on talking about the task. So I guess we should get started.

Otherwise, after introductions, say:

C: Okay, I guess we should get started.

TASK COMPLETION

Begin with:

C: **Let's both read it first so we can figure out what we're supposed to do. Let me know when you're done**

P: Okay, I'm done

C: Cool, me too

C: **So I know it says that usually the manager usually does project leaders first, but I'm actually not sure if that's the best way to do it**

C: **I think we should actually schedule by project. Some of the projects require more time than others, so those should probably be a priority. I think that will help me organize it better in my head so that I can get through it quicker**

C: Okay, here you go. I scheduled out [NAME] for Project [#] on [XXX] days. I also went ahead and scheduled [NAME] for Project [#]. It was easier for me to look at it with that filled in also

10 minutes into conversation:

C: I don't really like the way the example has the schedule block filled in. It looks very confusing

C: I think I'm going to change the format of the final schedule. I'm color coding it by project. That makes it a lot easier for me to see what's going on

Team/Crisis

INTRODUCTION

Begin with:

Confederate: **Hey! My name's [Meredith/Claire/Brad/Steven]. How's it going?**

IF participant asks any more personal questions, provide any of the following applicable responses:

Participant: What class are you doing this for?

C: I'm doing it for credit for gen psych

P: What year are you?

C: Sophomore

IF participant tries to initiate more personal conversation, switch topics to the task by saying:

C: Okay, the RA just came in and said to make sure we focus on talking about the task. So I guess we should get started.

Otherwise, after introductions, say:

C: Okay, I guess we should get started.

TASK COMPLETION

Begin with:

C: **Let's both read it first so we can figure out what we're supposed to do. Let me know when you're done**

P: Okay, I'm done

C: Cool, me too

C: **So I know it says that usually the manager usually does project leaders first, but I'm actually not sure if that's the best way to do it**

C: **I think we should actually schedule by project. Some of the projects require more time than others, so those should probably be a priority. I think that will help us get this done more efficiently**

.....

C: Okay, here you go. I scheduled out [NAME] for Project [#] on [XXX] days. I also went ahead and scheduled [NAME] for Project [#].I think that makes it easier for us to see what we should do next

Crisis – 10 minutes in

C: Oh, wait a minute. Did the ra just come in your room?

P: Yeah, we have to do another one now.

C: Okay, I guess we should figure out how to best do this.

C: Here, why don't you finish up typing in what we have for the last one and while you're doing that I'll organize the new information. This way we can both be getting something done together

Work on task

C: I don't really like the way the example has the schedule block filled in. It looks very confusing

C: I think I'm going to change the format of the final schedule. I'm color coding it by project. That should make it easier for both of us to see what still needs to be done

Team/No crisis

INTRODUCTION

Begin with:

Confederate: **Hey! My name's [Meredith/Claire/Brad/Steven]. How's it going?**

IF participant asks any more personal questions, provide any of the following applicable responses:

Participant: What class are you doing this for?

C: I'm doing it for credit for gen psych

P: What year are you?

C: Sophomore

IF participant tries to initiate more personal conversation, switch topics to the task by saying:

C: Okay, the RA just came in and said to make sure we focus on talking about the task. So I guess we should get started.

Otherwise, after introductions, say:

C: Okay, I guess we should get started.

TASK COMPLETION

Begin with:

C: **Let's both read it first so we can figure out what we're supposed to do. Let me know when you're done**

P: Okay, I'm done

C: Cool, me too

C: **So I know it says that usually the manager usually does project leaders first, but I'm actually not sure if that's the best way to do it**

C: **I think we should actually schedule by project. Some of the projects require more time than others, so those should probably be a priority. I think that will help us get this done more efficiently**

C: Okay, here you go. I scheduled out [NAME] for Project [#] on [XXX] days. I also went ahead and scheduled [NAME] for Project [#].I think that makes it easier for us to see what we should do next

10 minutes into conversation:

C: I don't really like the way the example has the schedule block filled in. It looks very confusing

C: I think I'm going to change the format of the final schedule. I'm color coding it by project. That should make it easier for both of us to see what still needs to be done

Organizational/Crisis

INTRODUCTION

Begin with:

Confederate: **Hey! My name's [Meredith/Claire/Brad/Steven]. How's it going?**

IF participant asks any more personal questions, provide any of the following applicable responses:

Participant: What class are you doing this for?

C: I'm doing it for credit for gen psych

P: What year are you?

C: Sophomore

IF participant tries to initiate more personal conversation, switch topics to the task by saying:

C: Okay, the RA just came in and said to make sure we focus on talking about the task. So I guess we should get started.

Otherwise, after introductions, say:

C: Okay, I guess we should get started.

TASK COMPLETION

Begin with:

C: **Let's both read it first so we can figure out what we're supposed to do. Let me know when you're done**

P: Okay, I'm done

C: Cool, me too

C: **So I know it says that usually the manager usually does project leaders first, but I'm actually not sure if that's the best way to do it**

C: **I think we should actually schedule by project. Some of the projects require more time than others, so those should probably be a priority. I think that will help us make sure we put together the best possible schedule for the company**

.....

C: Okay, here you go. I scheduled out [NAME] for Project [#] on [XXX] days. I also went ahead and scheduled [NAME] for Project [#]. That one seems to be a priority for the company so that should help everyone out

Crisis – 6 minutes in

C: Oh, wait a minute. Did the ra just come in your room?

P: Yeah, we have to do another one now.

C: Okay, I guess we should figure out how to best do this.

C: Here, why don't you finish up typing in what we have for the last one and while you're doing that I'll organize the new information. This way we can make sure the company gets both schedules finished

Work on task

C: I don't really like the way the example has the schedule block filled in. It looks very confusing

C: I think I'm going to change the format of the final schedule. I'm color coding it by project. That will make it a lot easier for the consultants and everyone else to read it at the end

Organizational/No Crisis

INTRODUCTION

Begin with:

Confederate: **Hey! My name's [Meredith/Claire/Brad/Steven]. How's it going?**

IF participant asks any more personal questions, provide any of the following applicable responses:

Participant: What class are you doing this for?

C: I'm doing it for credit for gen psych

P: What year are you?

C: Sophomore

IF participant tries to initiate more personal conversation, switch topics to the task by saying:

C: Okay, the RA just came in and said to make sure we focus on talking about the task. So I guess we should get started.

Otherwise, after introductions, say:

C: Okay, I guess we should get started.

TASK COMPLETION

Begin with:

C: **Let's both read it first so we can figure out what we're supposed to do. Let me know when you're done**

P: Okay, I'm done

C: Cool, me too

C: **So I know it says that usually the manager usually does project leaders first, but I'm actually not sure if that's the best way to do it**

C: I think we should actually schedule by project. Some of the projects require more time than others, so those should probably be a priority. I think that will help us make sure we put together the best possible schedule for the company

C: Okay, here you go. I scheduled out [NAME] for Project [#] on [XXX] days. I also went ahead and scheduled [NAME] for Project [#]. That one seems to be a priority for the company so that should help everyone out

10 minutes into conversation:

C: I don't really like the way the example has the schedule block filled in. It looks very confusing

C: I think I'm going to change the format of the final schedule. I'm color coding it by project. That will make it a lot easier for the consultants and everyone else to read it at the end

Confederate Tips/Guidelines

- Use regular sentence capitalization
- Don't need periods at the end of messages
- Steer the conversation toward the answer key
- As much as you can, be the one suggesting the next steps

If participant moves too quickly

- Try to slow them down
- Ask questions about the schedule, even if you've already talked about it
- Check over your schedule with them

If participant is not responding

- "Hi, are you there?"
- "Are my messages going through?"
- "Have you filled anything in yet? We should work on it together"
- And finally, "Let me check with the RA, maybe my computer isn't working"

APPENDIX F: MEASURES

Performance Evaluation

Relative Performance (Black & Porter, 1991)

Thinking about the overall performance of the person you are rating, please indicate how you would rate them relative to others in the same/similar jobs on the following aspects of work:

1. Overall performance
2. Ability to get along with others
3. Completing tasks on time
4. Quality (as opposed to quantity) of performance
5. Achievement of work goals

All responses are reported on a scale from 1 (*bottom 10%*) to 9 (*top 10%*)

Absolute Performance (Heilman & Chen, 2005)

1. Overall, how would you rate the employee's performance?
 - a. 1 (*poor*) to 6 (*excellent*)
2. In your opinion, how likely is the employee to advance further in the company?
 - a. 1 (*very unlikely*) to 6 (*very likely*)
3. How likely do you think the employee is to be successful in their position?
 - a. 1 (*very unlikely*) to 6 (*very likely*)

Reward Recommendation

(Heilman & Chen, 2005)

To what extent would you recommend the employee receive:

1. An increase in salary
2. A promotion
3. A high-profile project to lead

4. Bonus pay

All responses are reported on a scale from 1 (*would definitely not recommend*) to 7(*would definitely recommend*)

Competence

(Rudman & Glick, 1999)

To what extent is the employee:

1. Competent
2. Independent
3. Confident
4. Determined
5. Computer-skilled
6. Analytical
7. Ambitious
8. Competitive
9. Able to work well under pressure

All responses are reported on a scale from 1 (*not at all*) to 5 (*extremely*)

Agenticism/Communality

(Heilman & Okimoto, 2007)

How does the employee rate on the following adjectives?

Agenticism

1. Strong–weak
2. Assertive–not assertive
3. Tough–not tough

4. Bold–timid
5. Active–passive
6. Dominant–submissive

All items are 6-point bipolar adjective scales

Communality

1. supportive–not supportive
2. understanding–not understanding
3. sensitive–insensitive
4. caring–not caring

All items are 6-point bipolar adjective scales

Proactivity

(Griffin et al., 2007)

To what extent does the employee carry out the following behaviors?

Individual Task Proactivity

1. Initiate better ways of doing their core tasks
2. Come up with ideas to improve the way in which their core tasks are done
3. Make changes to the way their core tasks are done

Team Member Proactivity

1. Suggest ways to make their work unit more effective
2. Develop new and improved methods to help their work unit perform better
3. Improve the way their work unit does things

Organization Member Proactivity

1. Make suggestions to improve the overall effectiveness of the organization (e.g., by suggesting changes to administrative procedures)
2. Involve themselves in changes that are helping to improve the overall effectiveness of the organization
3. Come up with ways of increasing efficiency within the organization

All responses are reported on a scale from 1 (*very little*) to 5 (*a great deal*)

Overall Proactivity

1. To what extent does the employee behave proactively at work?
 - a. 1 (*not at all*) to 5 (*a great deal*)

Ambivalent Sexism Inventory

(Glick & Fiske, 1996)

Benevolent Sexism

1. No matter how accomplished he is, a man is not truly complete as a person unless he has the love of a woman
2. In a disaster, women ought not necessarily to be rescued before men.
3. People are often truly happy in life without being romantically involved with a member of the other sex
4. Many women have a quality of purity that few men possess
5. Women should be cherished and protected by men
6. Every man ought to have a woman whom he adores
7. Men are complete without women
8. A good woman should be set on a pedestal by her man
9. Women, compared to men, tend to have a superior moral sensibility

10. Men should be willing to sacrifice their own well being in order to provide financially for the women in their lives
11. Women, as compared to men, tend to have a more refined sense of culture and good taste

Hostile Sexism

12. Feminists are making entirely reasonable demands of men
13. Many women are actually seeking special favors, such as hiring policies that favor them over men, under the guise of asking for "equality."
14. Most women interpret innocent remarks or acts as being sexist
15. Women are too easily offended
16. Feminists are not seeking for women to have more power than men
17. Most women fail to appreciate fully all that men do for them
18. Women seek to gain power by getting control over men
19. Women exaggerate problems they have at work
20. Once a woman gets a man to commit to her, she usually tries to put him on a tight leash
21. When women lose to men in a fair competition, they typically complain about being discriminated against
22. There are actually very few women who get a kick out of teasing men by seeming sexually available and then refusing male advances.

All responses are reported on a scale from 1 (*disagree strongly*) to 7 (*agree strongly*)

Demographic Measures

1. What is your gender?
 - a. Male
 - b. Female
 - c. Other (comment)
 - d. Prefer not to answer
2. What is your age?
3. To what extent are you proficient in the English language (reading and writing)
 - a. Not at all
 - b. Somewhat
 - c. Very much
4. What is your current employment status?
 - a. Not currently employed (student with no outside job)
 - b. Employed part-time
 - c. Employed full-time
5. Have you every been employed in a supervisory/managerial position?
 - a. Yes
 - b. No

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