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# Reading Between the Lines: Reactions to Gendered Managerial Communications

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READING BETWEEN THE LINES: REACTIONS TO  
GENDERED MANAGERIAL COMMUNICATIONS

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A Thesis  
Presented to  
the Graduate School of  
Clemson University

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In Partial Fulfillment  
of the Requirements for the Degree  
Master of Science  
Applied Psychology

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by  
Melissa C. Waitsman  
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Accepted by:  
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## ABSTRACT

Some of the earliest research on women in the workplace demonstrated that women are not perceived as competent leaders and managers. Several decades have passed since that time, but, on average, American women still earn less than their male counterparts, and women still occupy only 12 Chief Executive Officer positions in Fortune 500 companies, up from 2 in 2007 (Fortune, 2008). Recent research suggests that negative stereotypes about women's managerial competence persist, particularly in regards to their assertiveness and forcefulness, two core managerial characteristics.

Current research on gender differences indicates that females are significantly more concerned with social relationships in the workplace than are their male counterparts. While this would seem to be a positive trait, women are viewed as less competent than men when they show the same level of emotional intelligence and concern regarding social interactions as their male counterparts (Hopkins & Bilimoria, 2008). This effect is relevant to performance appraisal, because female and male managers may draw on such social skills and concerns when providing feedback to subordinates.

The current study explored the effects of "feminine" or "masculine" performance feedback on perceptions of the appraiser as well as perceptions of the feedback. Using Role Congruity Theory (Eagly & Karau, 2002), hypotheses predicted that males and females would be rated most favorably when they delivered feedback consistent with their gender roles (e.g., feminine feedback given by a female manager). Results demonstrated males who delivered more masculine feedback were reliably judged to be

most agentic, while females who delivered feminine feedback were judged most communal. There was not a significant interaction between writer and message gender on either managerial competence or feedback effectiveness. These results are discussed along with implications for future research.

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## CHAPTER ONE

### INTRODUCTION

Women have come a long way towards achieving equality in the workplace, which is reflected in research on gender differences in managerial perceptions. In the last four decades alone, research has moved away from examining whether males and females are equally capable of being leaders (e.g., Day & Stogdill, 1972; see Brown, 1979 for a review of earlier research) and towards answering questions about why gender is still a predictor of indicators of success in management. One such indicator is salary, with recent research revealing that females earn approximately 73 cents to every male dollar earned (Lips, 2003). Such data, as well as evidence suggesting that female managers are not viewed as competent, raise questions regarding the sources of inequity in perceived effectiveness of male and female managers (Eagly, 2007).

Although society has made considerable progress toward gender equality, the very fact that the pay gap still exists and that negative stereotypes of women still limit perceptions of their managerial potential indicates that some inequality persists. Studies using statistical techniques prominent in both sociological studies, such as multidimensional scaling (e.g., Reskin, Hargins, & Hirsh, 2004), as well as those common to psychological studies, such as hierarchical linear modeling (e.g., Cohen & Huffman, 2003), confirm that even when one controls for factors such as education and interruptions in careers, more women occupy lower-paying jobs. This occurs at the level of the occupation (Cohen & Huffman, 2003; Maume, 1999), the market (Cohen &

Huffman, 2007), and the specific job type (Huffman & Cohen, 2004). Similarly, women are stereotyped as having less potential in male-typed jobs (Oswald, 2008).

Such relationships between gender and managerial status have led researchers to investigate why women may be at a disadvantage when entering stereotypically male occupations, and how gender stereotypes may frustrate women's attempts to succeed in managerial positions and male-dominated occupations. Research has established that individuals use gender stereotypes to determine the necessary skills for success in a given occupation, particularly in initial analyses of applicant qualifications, with higher status jobs requiring more masculine attributes (Cejka & Eagly, 1999). Recent research has further explored the effects of these stereotypes, examining the perceived fit between gender and managerial stereotypes as well as the implications of behaving in ways that violate stereotypic expectations (Eagly & Karau, 2002; Lyness & Heilman, 2006). This research is used as a framework for the current study.

In the current study, Role Congruity Theory serves as a theoretical rationale for the proposed relationships between the congruency of sex roles and managerial subroles with the perceived effectiveness of managers. The current study investigates the way in which positive social stereotypes of typically female behavior may actually put women at a disadvantage when certain aspects of their managerial behavior are judged. Managerial performance is explored through hypothetical performance appraisal scenarios in which performance feedback is supplied. This is a difficult but common managerial subrole that may require both assertiveness, a masculine-typed trait, and social skill, a feminine-typed trait (Atwater, Brett, Waldman, DiMare, & Hayden, 2004). Providing evaluative

feedback is a particularly interesting way to examine how women's adherence to the socially supportive sex role may be viewed more positively in terms of supportive managerial behavior, but much less positively when the female manager's task-oriented traits are evaluated. Based on Role Congruity Theory, it is hypothesized that when a woman provides masculine, task-oriented feedback, she is rated lower on measures of social skills and managerial effectiveness. Similarly, the mix of masculine and feminine traits required for successful performance may put men at a disadvantage when they communicate in an extremely masculine style, and feminine-typed managerial abilities are judged.

Performance appraisal is the domain examined here because it affords the unique opportunity to explore how stereotypically masculine, task-oriented and stereotypically female, socially-supportive communications drive perceptions of both masculine and feminine aspects of managerial performance. The experiment investigates the way that these communications affect the efficacy of performance feedback or performance appraisal – terms that are used interchangeably in this experiment because both involve providing information about another's performance. This experiment also provides insight into how these gendered communications affect ratings of both male and female managerial traits and competence.

Assessing how levels of masculinity and femininity of the feedback impact perceptions of male and female managerial performance is necessary because several factors affect whether recipients accept and intend to make improvements suggested in feedback. These factors include whether recipients accept and intend to make

improvements after receiving feedback, including the credibility of the source of the feedback and the consistency of the message itself (Ilgen, Fisher, & Taylor, 1979). The content of feedback messages may affect how others perceive managers and those perceptions, as well as the feedback itself, likely influence whether the feedback is utilized to improve performance. Because of the importance of providing feedback, as well as its likely influence on perceptions of managerial effectiveness, it is imperative that research explores these connections.

A better understanding of how gender-related expectations in such communications are related to perceptions of competence or incompetence in different domains may lead to a better understanding of why female managers are generally not considered equal to their male counterparts, in pay or opinion (Eagly, 2007). Babcock and Laschever (2007) recently called for societal changes in attitudes toward women who assert themselves because we have already gotten “as much mileage as possible out of the changes we’ve already made” (p. xiii). While such stereotypes are resistant to change, simply drawing attention to their existence and the real-world effects of these stereotypes on female managers in a structured experimental setting may be one way to increase awareness of their potentially negative effects on the efforts of women to achieve equality.

#### General Gender Differences in Social Behavior

Some of the most enduring gender differences involve societal level gender roles and consequences of not conforming to these expectations (Kalkhoff, Younts, & Troyer, 2008). One part of the female gender role involves a concern for others and maintaining

social harmony (Reid, 2004). This is supported by evidence of females' self-perceived (Rueckert & Naybar, 2008) and objectively demonstrated greater empathy (Schulte-Ruther, Markowitsch, Shah, Fink, & Piefke, 2008). Rueckert and Naybar found that women score much higher on self-reports of empathy, indicating that women believe they are empathetic. In an experiment designed to provide more objective data on skills central to empathy, Schulte-Ruther and colleagues demonstrated that females could more quickly identify the emotions of others pictured than could males and these females seemed to demonstrate greater neural activation when completing the task.

Not only do females tend to spend more time developing and maintaining interpersonal relationships than men, the nature of these relationships is qualitatively different. In addition to higher levels of empathy (Rueckert & Naybar, 2008), females are also significantly more self-disclosing compared to men, leading to greater intimacy more quickly (Dindia & Allen, 1992). The tendency for females to value intimacy manifests itself in many ways in female interactions. In several books, Deborah Tannen has explored the linguistic markers of conversation for men and women and found that women tend to focus on being cooperative and maintaining harmony, even at the expense of sincerity (Tannen, 1990; 1994). Fritz (1997) demonstrated that these same-sex relationships outside the workplace were similar to those in the context of the workplace. Fritz found that females' special peer relationships, the most intimate of the relationships studied, are stronger than males on the majority of measures of relationship strength. This study also demonstrated that females use these close relationships for emotional support more than do males.

Women also receive more from their social networks than do males, indicating a bidirectional flow in social networks for females compared to the unidirectional male-network relationships (Aguilera, 2008). For example, Aguilera found that women tended to use their networks to find well-paying jobs, while men do not receive this benefit. In fact, for females, use of personal networks for job seeking is positively related to income. Yet both males and females contribute information and resources to others in their networks, which means that females receive returns on their investment in social networks, while males may not receive the same level of returns. This also reflects a departure from previous research, which indicated that males received more from their social networks than did females, and thus they were able to advance their careers more quickly (Aguilera, 2008).

There do appear to be gender differences in how much these networks are valued. Based on available research, women value these networks more than men. Women are also able to activate social support from their networks, while men tend to have more difficulty getting this social support (Barbee et al., 1993). Reid (2004) found that men's general well-being is best predicted by self-esteem, while women's well-being is best predicted by self-esteem and relationship harmony. Thus, it appears that social networks and harmonious social interactions hold particular relevance for women.

Research in organizational settings reflects this same emphasis on social relationships. In leadership and managerial research, meta-analyses indicate that females use transactional leadership (Eagly, 2007) more than males, a leadership style that involves making connections with others in order to facilitate exchanges (Burns, 1979).

Transformational leadership involves stimulating the development of subordinates and being considerate of these persons as individuals (Bass, 1999). Thus, some of the social concerns that generally differentiate women from men may be reflected in leadership strengths. This does not imply that all men devalue social relationships; it simply suggests that women may place more emphasis on these skills than men, which is reflected in their leadership style. Conversely, men may value directive skills more than women, and this may be reflected in leadership styles that are more typical of male managers than female managers.

The question at hand is how this socially facilitative behavior may impact perceptions of managerial competency. In applied investigations of these social skills and managerial effectiveness, a complex pattern emerges. Quite recently, Judge and Livingston (2008) integrated sociological, economic, and psychological investigative tools in a multi-level longitudinal study to demonstrate that the traditional female gender role is negatively correlated with wage, suggesting that gender role influences pay and, indirectly, perceptions of competence and value. The authors used the longitudinal design in order to demonstrate the temporal sequence of events, lending more credibility to their conclusions that traditional gender roles are strongly associated with salary, though this is a positive relationship for males and a negative one for females. Occupational segregation can explain some of the variation between gender and salary, but gender role orientation seems to remain at least as powerful in predicting salary as occupational segregation (Judge & Livingston, 2008).

In a recent book, Linda Babcock and Sara Laschever addressed the way that the female gender role has played a part in women's lower salary by reducing the appropriateness of taking part in negotiations which can help women increase their status and compensation (2007). Through a number of studies, Babcock and her colleagues demonstrated that women did not initiate salary negotiations or plan to do so (Babcock, Gelfand, Small, & Stayn, 2002, as cited in Babcock & Laschever) and would not ask for ten dollars after participating in an experiment, even when the experiment was advertised as paying either three or ten dollars (Small, Babcock, & Gelfand, 2003, as cited in Babcock & Laschever). This is one example of how the desire to avoid conflict and maintain harmony, both important social skills, may actually place women at a disadvantage in some settings. However, these studies have not included a group of males for comparison purposes.

This type of finding in research is consistent with the predictions of Role Congruity Theory. According to Role Congruity Theory, women are expected to behave in socially competent and nurturing ways, and to avoid more task-oriented or authoritative styles of behavior (Eagly & Karau, 2002). However, given that these task-oriented behaviors are often perceived to be at the core of managerial effectiveness, women who behave in stereotypic ways may be at a disadvantage. Although they may be seen as effective in terms of the social behaviors or "communal" traits that are part of management, they may be viewed as less effective overall since they lack these task-oriented or "agentic" traits. Furthermore, when they behave in a way that is more agentic,

they may be viewed as having less desirable traits overall. This has many implications for the perceived effectiveness of female managers.

While the main focus of the study was an evaluation of women who provide sex-congruent or incongruent communications, I also chose to investigate evaluations of a male manager who provided male or female-typed communication. This served as a basis for comparing potentially negative effects of “out of role” communications for both men and women. This also allowed me to investigate whether the effects for men were conceptually similar to those for women.

In the following section, Role Congruity Theory (Eagly & Karau, 2002) is introduced as a general framework for understanding the way in which sex-congruent and sex-incongruent managerial behaviors are viewed. Next, we review the literature on the perceived fit between managerial and gender stereotypes, and follow this with a discussion of how managerial behaviors that are gender-incongruent may be viewed by subordinates. Finally, we extend this literature to performance appraisal settings, and explore how typically masculine and typically feminine performance feedback interacts with the gender of the manager in predicting ratings of agentic and communal aspects of managerial effectiveness.

### Role Congruity Theory

As noted by Eagly & Karau (2002), stereotypes of women and men contain traits that are generally ascribed more to one gender than the other. These stereotypes contain shared expectations about the typical behavior of men and women, called descriptive norms. They also contain expectations about how men and women ought to behave,

called prescriptive norms. Both are important in determining how men and women are viewed.

Role Congruity Theory is supported by Alice Eagly's decades of research exploring characteristics of the ideal leader, gender roles in the workplace, gender role theory, and gender differences in use of leadership style. Gender role theory posits that prescriptive and descriptive norms about men and women influence group and individual behavior, and thus these norms should be considered when evaluating beliefs about gender differences in leadership (Eagly & Karau, 1991). Meta-analyses have revealed that individuals believe that women specialize in social behaviors that facilitate group performance and action, while men specialize in behaviors specifically related to the group tasks, which explains why males more often emerge as leaders in laboratory studies of leadership (Eagly & Karau, 1991).

Role Congruity Theory predicts that individuals will be evaluated less favorably when they do not conform to the prescriptions of their gender role. Thus, the theory predicts that women will be evaluated less favorably for leadership positions because traditionally feminine characteristics do not match the core task-oriented characteristics of an effective leader (Eagly & Karau, 2002). This theory also makes specific predictions about gender-based violations of behavior that have been supported in years of research. For instance, women who behave in more masculine ways, such as demonstrating the directive behaviors required in leadership positions, are evaluated less favorably. This effect is pronounced in male-dominated occupations (Eagly & Karau, 2002).

Less favorable ratings may take the form of decreased likeability or lower perceived competence and effectiveness. While women may increase the overall favorability of their ratings by behaving using leadership styles that incorporate more communal or feminine traits, such as transformational leadership, the stereotype that they are not as competent in task-oriented traits remains (Eagly & Johnson, 1990; Eagly, Karau, & Makhijani, 1995). These findings have been supported by meta-analytic data (Eagly, Johannesen-Schmidt, & van Engen, 2003; Eagly, Makhijani, & Klonsky, 1992).

One of the most important implications of this theory is that certain aspects of the female role are inconsistent with the role of a leader and this incongruity leads to negative reactions towards female leaders. This is particularly important because occupying a management position usually requires an individual to engage in a number of different activities, some of which are more stereotypically masculine or feminine than others. Thus, managers of both sexes must, at least occasionally, engage in behavior that is necessary for the management role, but not sex-congruent. This may lead to negative perceptions about the individual. For example, research has demonstrated that, when disciplining a subordinate, males are perceived more favorably than are women who engage in exactly the same behavior (Atwater, Carey, & Waldman, 2001; Brett, Atwater, & Waldman, 2005), likely because the assertiveness involved in administering discipline and corrective feedback are masculine managerial subroles (Atwater, Brett, Waldman, DiMare, & Hayden, 2004).

In terms of management, both descriptive and prescriptive gender norms are relevant. The perceived match between typical managerial or leader behavior and gender

expectations may drive the perceived suitability of women and men for such roles. In the first segment, we explore these descriptive norms as one source of negative evaluations of female managerial competence, while the second segment addresses prescriptive norms. This segment explores the way in which managerial behavior that suits the feminine stereotype may be viewed positively when social competence of managers is judged, but less positively when task-oriented competence is judged.

Similarly, males may be viewed less positively when they behave in ways that violate stereotypic expectations. While they may be at an advantage when agentic traits central to management are evaluated, they may be viewed as much less concerned with social interactions (Duehr & Bono, 2006). Richardson, Bernstein, and Hendrick (1980) found that, while there was an overall preference for individuals who displayed sex role-congruent interests, males who deviated from their sex role were viewed more negatively than females who deviated. A more recent study of professional human resource managers' found that hypothetical male applicants were judged much more harshly than female applicants when they had experienced gaps in employment (Smith, Tabak, Showail, Parks, & Kleist, 2005). Because traditional male stereotypes portray the male as the primary breadwinner in a household, Smith et al.'s results can be considered support for punishment of males who deviate from expectations, even when using a professional sample that should be least vulnerable to stereotypes associated with the legal consequences of gender-based discrimination. These gender-based stereotypes may lead to expectations that men should not show great levels of concern for social aspects of

interactions with employees or peers, and may lead to lower ratings of male managers when they behave in this manner.

Thus, descriptive norms may impact evaluations of both male and female managers, and may lead to more negative perceptions of managerial effectiveness when a manager acts in a way that violates stereotypes. In the next segment, we explore literature that clarifies the nature of these male and female stereotypes and their relevance to managerial effectiveness.

#### *Descriptive Norms: Fit Between Gender Stereotypes and Managerial Stereotypes*

While social competence or communal traits may be viewed as positive in a general sense, stereotypically female traits may not be consistent with more agentic or task-oriented traits that are viewed as important in managerial success (Duehr & Bono, 2006). The largest differences in gender are found on the most communal subscales of management and leadership questionnaires, namely individualized considerations, which implies that females tend to show more concern for others (Eagly & Johannesen-Schmidt, 2001). Indeed, numerous studies have shown that, *ceteris paribus*, individuals judge males to be more agentic or task-oriented and females to be more communal (Eagly & Steffen, 1984). Overall, women are seen more positively in terms of communal or socially supportive traits, while men are viewed more positively in terms of agentic or task-oriented traits. Women are viewed as being more sensitive leaders than men and males are seen as stronger leaders (Johnson, Murphy, Zewdie, & Reichard, 2008).

These findings have many implications for the way male and female managers are perceived. They may set up expectations regarding the way that male and female

managers interact with subordinates. Based on research in the area of communication and language, there are clear differences in the way that men and women communicate that are consistent with these stereotypes.

Thus, part of this stereotype may be reinforced by communication that is gender-specific. Leaper and Ayres (2007) conducted a meta-analysis of language use by adults and found that women use more affiliative speech, while men use more assertive speech. This is a finding that supports the idea that males are more concerned with action and direction, while females are more concerned with creating and maintaining relationships. Men are viewed as having these “strong” agentic traits to a greater extent than women and their communications may reinforce these gender expectations. Similarly, women may be seen as more communal and may be more likely to communicate in a way that reinforces these gender expectations.

Applied research suggests that this has direct implications for evaluations of leadership and managerial positions. While some may believe that these gender stereotypes have shifted over time, recent research suggests that they are still active forces in the evaluation of women for powerful positions. In a recent study, both men and women rated females as less qualified for a leadership position, and this effect was magnified when the position was in a more masculine industry and thus inconsistent with the female’s sex role (Garcia-Retamero & López-Zafra, 2006). This is consistent with research completed over a decade ago that found that females in leadership roles were evaluated less favorably than men in similar roles when the occupation was rated as more masculine (Eagly, Makhijani, & Klonsky, 1992). Similarly, research showed that

individuals who violate stereotype or gender role expectations are perceived negatively (Jussim, Coleman, & Lerch, 1987). The implication of this research is that when a woman is in a traditionally masculine role such as a managerial role, stereotypes may be quite prominent and damaging to women's perceived competence, particularly when gender-inconsistent traits are rated.

Males who do not conform to masculine stereotypes seem to be perceived less favorably than those who conform to masculine roles, though research exploring this topic is much more limited than research exploring females who do not conform to gender roles. Being perceived as a feminine male is not something men strive for, and may even be used as an insult, such as when California Governor Arnold Schwarzenegger infamously referred to legislators he believed didn't "have the guts" to vote against special interests groups as "girlie men" (Fagan, 2004, p. A05). There is research demonstrating that men are rated more negatively when they are perceived as more feminine. For example, male professors with higher femininity scores on the Bem Sex Role Inventory are evaluated less positively than are those with lower femininity scores (Das & Das, 2001). Similarly, Garcia-Retamaro and López-Zafra (2006) found that males were expected to be promoted significantly more often in masculine industries than in feminine industries. Males with more cross sex-role behavior also have lower levels of self-confidence and more negative thoughts about one's self (Chusmir & Koberg, 1991), as well as greater psychological discomfort (Bem & Lenney, 1976). However, it is worth noting that the original Role Congruity Theory was only applied to

prejudice towards female managers and leaders, rather than any person who deviates from gender roles.

Thus, while gender and managerial stereotypes are shifting, traditional views of the competencies needed for management are remarkably stable. While meta-analyses reveal that female leaders are evaluated only slightly less favorably than males overall when specific dimensions of performance are evaluated, rather than overall effectiveness and other global criteria (Eagly, Makhijani, & Klonsky, 1992), important moderators exist, such as whether the leadership role exists in a male sex-typed environment or requires male sex-typed behavior (Eagly & Karau, 2002). This preference for male leadership has been replicated numerous times, including more recently in 2002 (Eagly & Karau). As recently as 2007, research has shown that the word “leader” is still associated with males and the masculine gender role (Marchant, Bhattacharya, & Carnes, 2007).

Additional research suggests that these effects may stem from continuing beliefs that typically feminine traits are inconsistent with managerial requirements. For male students rating managerial and male/female stereotypes, these findings have shifted little in the past 15 years, although individuals with experience with female managers see more congruence in feminine and managerial traits. Like most stereotypes, feminine stereotypes seem to be most powerful for those with less experience with the target group, such as unmarried males whose mothers did not pursue a career outside the home (Terborg, Peters, Ilgen, & Smith, 1977).

Social psychology’s shifting standards model of stereotypes also explains how women may still suffer from discrimination in ratings and appraisal. This theory posits

that evaluators may set lower standards for individuals in a stereotyped group, thus allowing for more individuals in the stereotyped group to reach the standard (Biernat & Manis, 1994). Essentially, this theory implies that studies demonstrating that ratings of males and females on general competency standards may be due to evaluators assessing women's social skills in order to determine competency, rather than the full range of behaviors necessary for males to demonstrate competency. This may be the cause of women's greater likelihood of being put on the short list for a position, but lower likelihood of being chosen for the position (Biernat & Fuegen, 2001). The shifting standards model has also been implicated as a reason for the gender wage gap (Alksnis, Desmarais, & Curtis, 2008).

In general, social traits are still viewed as less critical to managerial competence than agentic traits. For a woman to be viewed as competent in such leadership roles, she needs to be viewed as both competent and strong (Johnson, Murphy, Zewdie, & Reichard, 2008). This is supported by research suggesting that women who are more androgynous or embody both stereotypically masculine and feminine traits are rated as significantly more desirable than those who are more feminine (Arkkelin & Simmons, 1985). Overall, research suggests that women are perceived as more competent than men in terms of managerial requirements that involve social support and less competent in situations that require a strong task orientation and clarity. Conversely, men are viewed as less socially engaged and competent than females but more skilled in task-oriented behaviors.

Thus, there is not a simple relationship between socially supportive behaviors and managerial success (Duehr & Bono, 2006). In situations where agentic traits critical to managerial success are rated, more socially supportive behaviors may not be seen as effective as behaviors that are more task-oriented. However, in situations where communal or socially supportive traits associated with managerial success are rated, such behaviors would be viewed more positively.

This has clear implications for perceptions of women who are in situations that require directive, task-oriented actions. They may be penalized for showing behaviors that are necessary for success in such situations. As an example of this, women who use more supportive communications during disciplinary actions were viewed as more fair than male counterparts who did not provide supportive communications (Cole, 2004). Female managers are well aware of the pressure to be supportive at work and outside work, and report this as a greater source of stress than do male managers (Iwasaki, MacKay & Ristock, 2004).

Based on the limited research available in performance appraisal, it appears that this type of communication is expected from women, consistent with the predictions of Role Congruity Theory. When delivering discipline, female managers must also engage in two-way communication, allowing the individual being disciplined to express his or her thoughts on the situation or they are viewed relatively negatively (Brett, Atwater, & Waldman, 2005). Males, however, are not viewed significantly more negatively if they fail to allow or encourage a dialogue. Related research has demonstrated that female managers receive higher performance ratings from both their supervisors and

subordinates when they are more accurate in perceiving nonverbal emotions (Byron, 2007).

These women score even higher when they use this information for supportive purposes, which the author suggests may be due in part to “gender stereotypes that prescribe emotional sensitivity to female managers” (Byron, 2007, p.713). Males, on the other hand, receive higher performance ratings when they use their ability to read emotion for more persuasive purposes. Thus, the relationship between socially supportive behaviors and perceptions of managerial competence depend in part on the dimension of managerial performance that is rated. This has important implications for research. If one measures managerial competency in terms of a summary or overall rating, then more subtle differences due to masculinity or femininity of specific managerial dimensions may be lost. Thus, it is helpful to measure not only overall managerial effectiveness when investigating the effects of gender congruent communications, but masculine (agentic) and feminine (communal) traits as well. In the next segment, the effect of communal or agentic behavior on socially supportive and task-oriented aspects of managerial performance for men and women is examined.

#### *Prescriptive Norms: Fit Between Manager Gender and Behavior*

A second influence on the relationship between agentic behavior, communal behavior, and ratings of managerial competence is the gender of the manager. As noted earlier, Role Congruity Theory suggests that there is an interaction between gender and behavior, such that people are viewed more positively when they behave in a way that is consistent with their gender and less positively when they violate gender expectations

(Eagly & Carli, 2007; Eagly & Karau, 2002). There is some evidence that there is an interaction between the gender of the manager and the masculinity and femininity of the behavior on subordinate perceptions of the manager.

Research reviewed in the prior segment supports the idea that both males and females are evaluated more favorably when they behave in a stereotypic-consistent manner, even when these behaviors are inconsistent with stereotypes of the ideal manager (cf., Byron, 2007). Additional research demonstrates that in the domain of leadership and management, women may be viewed more positively when they behave in a way that is consistent with gender expectations. In dyads where the individuals are explicitly told to pick a leader and a follower, even agentic women are less likely to emerge as leaders than are their male counterparts when the leader task is “male typed,” such as gathering the most important information about playing a football game (Ritter & Yoder, 2004). In this case, the incongruity between the gender-typed task and the individual’s gender had a larger effect on the gender of the emergent leader than the congruity between the agentic traits and role of leader.

Related research by Heilman & Okimoto (2007) suggests that women may actually be penalized when they succeed as managers, perhaps because they violate gender expectations. They found that when no information regarding the communal traits of women is provided, women who were described as successful managers were viewed as less likable and more hostile than their male counterparts. Providing information that suggested that the woman was more feminine, such as describing her as a mother, decreased this effect.

Similarly, recent research suggests that the core characteristics of leadership and management, task-oriented and person-oriented traits, are viewed as gender-linked by both male and female respondents (Sczesny, 2003; Sczesny, Bosak, Neff, & Schyns, 2004). Males are viewed as having higher levels of task-oriented traits while women are viewed as superior in terms of person-oriented traits. Given the fact that directive or “agentic” traits are at the core of the ideal American manager, too much concern regarding harmony and well-being of subordinates can actually be considered as ineffective or insufficient leadership. Overall, there is a better “fit” between masculine characteristics and the perceived characteristics of leaders. Indeed, when asked to describe a successful manager, the description more closely matches those generated for men in general than women in general (Heilman, Block, Martell, & Simon, 1989). More recent studies have shown that individuals rate more task-oriented traits and general strength as particularly important leadership skills, though both are more strongly associated with men than women (Johnson, Murphy, Zewdie, & Reichard, 2008; Sczesny, 2003). Thus, while both men and women are viewed as having desirable gender-linked leadership traits, overall ratings of men tend to be more favorable than those of women.

Some situations also seem to exacerbate the devaluing of female managers. Women tend to be evaluated less favorably when the rater holds traditional views about gender roles (Dobbins, Cardy, & Truxillo, 1988). For example, when there is a perceived lack of fit between the female gender role and the job or task, such as females in management positions, these women received deflated performance ratings (Lyness &

Heilman, 2006). Females also receive more deflated rankings when the rater is told these evaluations will be used to make merit pay and promotional decisions rather than simply to provide feedback to the individual or for scale validation (Dobbins, Cardy, & Truxillo, 1986). In summary, research supports the existence and pervasiveness of masculine and feminine stereotypes and recent research suggests that overall assessments of managerial skills are still viewed as consisting of more masculine traits.

While this is a consistent finding among researchers investigating the perceived “fit” of women in management, there are still many unanswered questions in this area. Most of the existing work examines general perceptions of females’ managerial competence. Thus, the current study investigates the role of these gender stereotypes on perceptions of female and male managers who provide gender consistent or inconsistent performance feedback. The next segment explores the role of such communication on perceptions of managerial effectiveness.

#### Applying Role Congruity Theory to Performance Appraisal

The research reviewed suggests that women and men may be penalized for engaging in gender inconsistent behavior. Existing research suggests that this effect may extend to communications, with men and women judged more favorably when they communicate in a manner consistent with gender expectations. Rudman and Glick (1999) demonstrated that more assertive, agentic females were judged as lacking in interpersonal and social skills, as well as nurturing and communal traits, all of which are important features of the female gender role. Similarly, assertive women may be viewed as having less desirable traits than males in leadership or managerial positions since this trait

violates traditional expectations of female behavior (Ridgeway, 2001). Ridgeway demonstrated that these assertive women face more difficulty getting subordinates to comply with their directives, in part due to a perceived lack of legitimacy or authority of the female manager. A perceived lack of credibility is one of the factors that may lead to a disregard of performance feedback, an effect discussed more in the next segment addressing characteristics of feedback (Ilgen, Fisher, & Taylor, 1979; Forgas & Tehani, 2005).

It seems plausible that similar gender effects are present in the context of performance appraisal. Agentic or typically “masculine” feedback may be perceived quite differently when provided by a male than when provided by a female. Effects may be strongest when those aspects of managerial performance most relevant to the gender stereotype are assessed. The current study investigates the gender fit of performance appraisal feedback and the perceived effectiveness of the manager as well as the effectiveness of this “masculine” or “feminine” feedback. This segment explores the nature of performance feedback and how the “masculinity” or “femininity” of that feedback may influence its perceived effectiveness.

Feedback and performance appraisals vary in their effectiveness, but may be evaluated most parsimoniously in terms of variables related to the source of the feedback, the content of the feedback itself, and the recipient of the feedback. Factors related to the source of the feedback include the credibility and knowledge of the person providing feedback and the context in which feedback is delivered. In general, individuals judge feedback as more accurate, and are more likely to accept such feedback and suggestions,

when the individual believes the source of the feedback is credible and has the expertise necessary to provide such feedback (Forgas & Tehani, 2005; Stone, Gueutal, & MacIntosh, 1984). There are a number of studies examining a variety of variables related to the content and type of feedback, though only a few will be explored here, as they relate to the current study. Atwater & Brett (2006) demonstrated that individuals prefer to receive numeric and normative feedback rather than text feedback that provides only self-relevant information. Individuals also rate more positive feedback as more accurate, even if such feedback was randomly assigned to the recipient (Ruzzene & Noller, 1986). Such positive feedback also elicits more positive affect in individuals (Plaks & Stecher, 2007).

There are a number of variables related to the recipient of the feedback that predict how well such feedback is received and whether that leads to performance improvements, though only the most relevant to the current study are reviewed here. Individuals who receive feedback that leads them to believe that they can exert control over their performance or a particular outcome respond more effectively to this feedback (Martocchio & Dulebohn, 1994). The importance of receiving feedback that urges the individual to focus on how he or she can influence future outcomes is important, as the absence of feedback in the context of failure can lead to the development of learned helplessness of a general decrease of effort (Mikulincer, 1988; Mikulincer, Yinon, & Kabili, 1991). The perceived controllability and the attributions the feedback helps recipients formulate are important determinants of the amount of effort expended in pursuit of a goal, thereby increasing the likelihood of goal attainment (Donovan & Hafsteinsson, 2006; Latham & Locke, 1979). This suggests that attributions made about

male or female managers as a result of sex congruent or incongruent communications have practical, real world consequences for employees.

Research supports the contention that men are more likely to provide directive negative feedback than women (Brewer, Socha & Potter, 1996). Given that males are more likely to provide such agentic feedback than women, and that this behavior is seen as gender consistent for men, we would expect that typically masculine feedback would be viewed as more directive and effective than feminine feedback. In the next segment, we provide some support for this assumption based on the general literature in the area of feedback and performance.

#### *Characteristics of Feedback*

Most researchers agree that feedback is necessary in order for individuals to improve their performance, as the individual must understand the areas where improvement is needed in order to adjust effort or some other variable in order to improve. Feedback is defined in terms of its ability to provide the recipient with knowledge of results or performance (Cascio & Aguinis, 2005). In fact, specific and timely feedback is an important component of goal setting theory and a necessary part of progression towards a goal (Locke, Shaw, Saari, & Latham 1981). Feedback plays an important part in learning new skills during both training and performance appraisals, and thus it is an important part of job performance. As part of the goal setting process, feedback is associated with a number of positive workplace outcomes (Reber & Wallin, 1984; Reber, Wallin, & Chhokar, 1990).

Thus, it is important to consider the variables that may affect whether feedback is accepted and suggestions implemented. In this paper, the terms feedback, performance feedback, and performance appraisal are used interchangeably, as all terms accurately describe the performance information used in this study. Additionally, both performance appraisal and feedback literature is relevant to the theoretical and empirical background of this study, further justifying the interchangeable use of terms. In the current study, it was proposed that the gender fit between feedback type and managerial gender predict both reactions to the manager and reactions to the feedback. Since this has not been explored in previous research, more general findings on the issue are explored for guidance.

As mentioned previously, feedback can be assessed in terms of variables related to the provider, content, and recipient of the feedback. In order for an individual to even contemplate feedback, the person must understand the feedback as well as pay attention to the feedback based in part on the credibility of the source (Ilgen, Fisher, & Taylor, 1979). For the source to be considered credible, the recipient of feedback must make subjective judgments about whether the source is both trustworthy and a legitimate judge of performance (Brett & Atwater, 2001; Ilgen, Fisher, & Taylor).

The credibility of the source, however subjective, is also positively related to intentions to use suggestions indicated in the feedback (Bannister, 1986). Stone, Gueutal, and McIntosh demonstrated that the judged accuracy of feedback on a basic in-basket sorting task was much higher when students believed an expert in the field had provided it (1984). Sinclair and Kunda (2000) theorized and provided empirical evidence that the

feedback recipient must try to salvage his or her own self-concept, which may take the form of believing the person who delivered the feedback was incompetent or incorrect. In situations where the person delivering the feedback is operating in a gender-inconsistent role, or providing gender-inconsistent feedback, the recipient may be more likely to reject the integrity of the information conveyed.

### *Gender Effects and Feedback*

In terms of gender effects, research on the role of gender and managerial stereotypes on perceived appropriateness and accuracy of performance feedback is limited. Most of the psychological research in this area deals with the way gender relates to general evaluations of male and female managers, and how males and females evaluate members of the same and opposite sex. However, some research exploring the complexities of these biases in performance appraisal and feedback does exist and is reviewed here.

Females face an enormous challenge when delivering negative feedback or any sort of discipline or punishment. Atwater, Carey, and Waldman (2001) found that male subordinates were more likely to believe that discipline or negative feedback was mishandled when it was delivered by a female supervisor than were females who received feedback from females, males from males, or males to females. When female managers allow for less two-way discussion when delivering disciplinary action, they are rated much more negatively than males who are low in this dimension (Brett, Atwater, & Waldman, 2005). This effect may be due to the perceived lack of fit between the traditional female role and the agentic behavior of disciplining others (Atwater, Brett,

Waldman, DiMare, & Hayden, 2004). This could also be due in part to the fact that discussion and willingness to listen to another's opinions is considered a more feminine and supportive subrole and women are punished for not engaging in this sex typed behavior, much the way that women may be punished for not engaging in emotionally supportive behavior (Byron, 2007; Atwater et al.). Role Congruity Theory would suggest that both effects might come into play in performance appraisal situations, particularly when disciplinary feedback is involved.

Additional research suggests that women emphasize socially supportive, gender consistent aspects of feedback when providing performance information. Females seem to respond to low performers differently from their male counterparts. Females are more likely to believe that they should support and counsel the poor performer, and less likely to punish the individual (Dobbins, 1985). The gender of the leader and decision-maker also has a larger impact on the preferred course of action in dealing with poor performance than does the gender of the subordinate. Females seem to dislike delivering direct unambiguous negative feedback, as is evidenced by the fact that they delay the task more than males and distort it to sound more positive (Benedict & Levine, 1988). Females tend to provide higher ratings of others than do males, a phenomenon the authors theorize may be due to females greater concern for others and a need to conform to the image of the female as nurturer and supporter, as females seem to overestimate performance relative to experimenter-created scorings of performance (Hamner, Kim, Baird, & Bigoness, 1974; London & Poplawski, 1976; Shore & Thornton, 1986). Given the information reviewed earlier on gender differences in communication, it seems likely

that women would deliver negative performance feedback in a more indirect style than men. Conversely, males tend to believe that direct feedback is most effective (Lizzio, Wilson, Gilchrist, & Gallois, 2003). Indeed, male leaders only need to display strength to be perceived as effective, while females must be both sensitive and strong (Johnson, Murphy, Zewdie, & Reichard, 2008).

The gender differences in feedback become particularly relevant in situations when negative or corrective feedback must be provided. Providing redirection is an important managerial function, yet the way in which it is given may impact both perceptions of the manager and acceptance of the feedback. In the next segment, we explore the particular challenges faced by female managers who must provide corrective feedback to employees.

### *Negative Feedback*

Negative feedback, frequently following a failure experience, should receive special consideration because of its importance in affecting change as well as its greater likelihood of rejection. People overwhelmingly prefer positive feedback, displaying more positive affect after receiving it (Plaks & Stecher, 2007) and rating it as more accurate than negative feedback, even if the valence of the feedback is randomly assigned to the participant (Ruzzene & Noller, 1986). While failure or poor performance is most often deemed a frustrating annoyance, research indicates that performance after failure can actually improve (Grant & Dweck, 2003; Ilgen, Fisher, & Taylor, 1979). For example, research involving soldiers found that those who reviewed both successful and failed experiences performed better than those who reviewed any other combination of event

types (Ellis & Davidi, 2005). However, it is obvious that the experience of failing or receiving negative feedback does not by itself provide the impetus or mechanism needed to facilitate later performance (Ilgen & Davis, 2000).

Some models of feedback indicate that negative feedback may be much more complicated than positive feedback, with four dimensions compared to positive feedback's two (Geddes & Linnehan, 1992, 1996). Geddes and Linnehan argue that positive feedback can be evaluated by considering whether the feedback provides praise and no instruction or offers guidance, and whether feedback focuses on the product of the work or the process involved in creating the product. Negative feedback, however, can be constructive or destructive; explicit or ambiguous; may demonstrate that the provider of the feedback is aware of the performance conditions and constraints; and may contain clear and consistent performance dimensions or may demonstrate inconsistent and mixed standards and messages. These dimensions address the content of the feedback itself and are relevant to the proposed study, particularly the clarity and consistency dimensions. Clarity is more often associated with masculine communications than feminine communications, as feminine communications tend to focus on relational information or become relatively ambiguous with the addition of hedge words and tag questions that indicate the speaker's uncertainty (Tannen, 1990).

It is predicted that feedback that attempts to "soften the blow" of negative feedback will be rated as more feminine. The research reviewed thus far suggests that female managers are viewed as more feminine, are expected to behave in more socially supportive ways, and may confirm these expectations through the nature of their

communications. The concern for emotions is tied to the concern for maintaining positive relationships and greater tendency to empathize that women show, as well as a desire to appear congruent with the female sex role and not be perceived as unpleasantly aggressive, as discussed previously.

In the pilot study, I attempted to design communications that were feminine or masculine in nature, drawing on the findings of past research. Although the main reason for the pilot was to design these communications for the main study, I wished to formulate some basic hypotheses about the ratings of communications. These hypotheses dealt with the perceived masculinity/femininity of the communications as well as the perceived source of communication. Thus, the following hypotheses were proposed for the pilot study:

*Hypothesis 1a.* Feedback that is rated as more socially supportive will be evaluated as more feminine.

*Hypothesis 1b.* Feedback that is rated as more emotional will be evaluated as more feminine.

*Hypothesis 1c.* Feedback rated as more feminine will be rated as more likely to be generated by a female manager than by a male manager.

*Hypothesis 2a.* Feedback that is rated as more agentic will be evaluated as more masculine.

*Hypothesis 2b.* Feedback rated as more masculine will be rated as more likely to be generated by a male manager than by a female manager.

This concern for social relationships and avoidance of sex role violations that is found in “female typed” communications may lead to feedback that is perceived more positively in terms of supportiveness but less effective in terms of overall managerial traits because it is perceived as less clear and directive as well as gender-inconsistent. Research demonstrates that inconsistent feedback is not perceived favorably and suggestions contained within it are not frequently heeded (Ilgen, Fisher, & Taylor, 1979). Thus, females who do conform to the female gender role may face issues of subordinate compliance. Similarly, males who deviate from the male gender role might face the same problems.

In summary, it is expected that an interaction between manager sex and the gender of feedback on evaluations of managerial performance will be present. Specifically, ratings of gender-consistent dimensions of performance and gendered traits will be higher when email writers provide gender-consistent performance feedback (Manager Sex X Feedback Type Interaction on Ratings of Managerial Performance). This interaction is expected for overall managerial performance, as well as agentic and communal traits.

Ultimately, I expect both simple within-gender differences in evaluations of performance and more complex between-gender effects in ratings of competence and traits. Based on this literature, the following hypotheses are proposed for the main study:

*Hypothesis 3a.* There will be a main effect of feedback type (agentic or masculine versus communal or feminine) on ratings of male manager’s competence. The

male manager will be viewed as more competent when he delivers agentic rather than communal feedback.

*Hypothesis 3b.* Males who deliver more direct or masculine feedback will be evaluated less favorably on measures of communal traits than males who deliver more communal or feminine feedback.

*Hypothesis 3c.* Males who deliver more masculine feedback will be rated higher on measures of agentic traits than males who deliver more communal feedback.

*Hypothesis 4a.* Females who deliver more communal or feminine feedback will be evaluated more favorably on measures of overall managerial competence than women who deliver more agentic or masculine feedback.

*Hypothesis 4b.* Females who deliver more feminine feedback will be rated higher on measures of communal traits than females who deliver more agentic feedback.

*Hypotheses 4c.* Females who deliver more feminine feedback will be rated lower on measures of agentic traits than females who deliver more communal feedback.

In terms of between-gender hypotheses, I expect that men and women are viewed more positively, or receive higher scores on, gender-consistent managerial dimensions when the manager provides feedback in accordance with gender stereotypes:

*Hypothesis 5a.* There will be a Manager Gender X Feedback Type Interaction on ratings of communal and agentic traits as well as overall managerial effectiveness.

*Hypothesis 5b.* Males who deliver more feminine feedback will be rated as more communal, but less agentic and less competent than males who deliver more masculine feedback.

*Hypothesis 5c.* Females who deliver more masculine feedback will be rated as more agentic, but less communal and less competent than females who deliver more feminine feedback.

Because feedback effectiveness is so intricately tied to performance, I wanted to examine how it was related to the gender of the manager as well as the message itself. However, because of the lack of consistent findings connecting gender to the effectiveness of communication, I did not formulate a directional hypothesis. Therefore, I measured feedback effectiveness with the intention of exploring its relationship to feedback and managerial gender.

## CHAPTER TWO

### DESIGN AND METHOD

#### Pilot Study: Phase One

I conducted a pilot study to guarantee that the two e-mails used in the main study were similar in many ways except for masculinity and femininity. This would enable us to pair the most appropriate e-mails with a masculine or feminine name in the subsequent main study, making the name and e-mail content appear gender congruent or incongruent. Masculine and feminine versions of several e-mails were tested with the same items that were used to assess masculinity and femininity used in the main study. Participants in the pilot study read and responded to items regarding four masculine or four feminine e-mails and also ranked them in terms of overall femininity or masculinity. The end result of the pilot was one masculine and one feminine e-mail for further use in the main study.

#### Participants

A sample of 37 undergraduate students enrolled in a mid-sized southeastern university was used for the pilot study. However, only 32 participants completed the survey and these were retained for the majority of analyses. Participants were recruited through a psychology department subject pool and received class credit for their participation. Participants were 41% male and 59% female. Ages ranged from 18 to 24 years, with a mean of 19.56. The majority of participants were White/Caucasian (91%) and 6% Black/African-Americans and 3% Asian/Pacific Islander. The majority of participants were freshman or sophomores (71.9%). Participants had a wide variety of

majors, with 12.5% studying Biological Sciences, 8.1% in Nursing, and 18.75% in Psychology.

### Measures

The author created e-mails that had supposedly been sent from a manager to a subordinate. No names or e-mail addresses were included in the “to” and “from” lines of the sample e-mails so that participants were not given any overt cues regarding the gender of the e-mail writer, unlike in the main study. With the aid of linguistics literature, the following characteristics of gendered communication were examined and used to create the e-mails:

*Hedge words.* Research suggests that women use more words and phrases such as “I guess” or “I figure” that weaken the statement, particularly requests and orders (Bradac, Mulac, & Thompson, 1995; Mulac, Seibold, & Farris, 2000; Newman, Groom, Handelman, & Pennebaker, 2008). These phrases prevent the speaker or writer from making definitive statements or forcing his or her opinion on others. This also allows for disagreement from others and is overall more considerate of the feelings of others. Thus, hedge words and phrases were included in the more feminine style e-mail samples.

*Tag questions.* Tag questions ask the audience to agree with the author and usually follow a statement. For example, in the statement “that’s a good idea, right?” the “right?” is a tag question. Women tend to use these questions more often, similarly detracting from their authority by demonstrating uncertainty, yet also refusing to exclude another person’s opinion and attempting to foster agreement (Bradac, Mulac, & Thompson, 1995). Women’s language tends to be more relational, focusing on domestic

and personal topics when no topic is assigned and tag questions are one way that more feminine language builds relationships (Colley, Todd, Bland, Holmes, Khanom, & Pike, 2004). Tag questions and hedges are two ways that women express uncertainty more often than their male counterparts (McMillan, Clifton, McGrath, & Gale, 1977). Thus, tag questions were included along with hedges in the feminine style e-mails.

*Compliments.* Females tend to compliment others more often than males (Thomson, Murachver, & Green, 2001). This may be due to females' greater concern for creating and maintaining positive relationships with others. Females also tend to be more polite than males and use "extra-polite" ways of asking someone to do something (e.g., "if you wouldn't mind") (McMillan, Clifton, McGrath, & Gale, 1977, p. 545; Newman, Groom, Handelman, & Pennebaker, 2008). Thus, e-mails written in the feminine style compliment the e-mail recipient on his or her supposed performance on a first draft.

*Directives and length.* Masculine language tends to be more direct, with fewer adjectives and statements not related to the purpose of the conversation or e-mail (Mulac, Seibold, & Farris, 2000). To that end, women tend to be wordier than males in oral and written communication, though males tend to speak more often and thus may use more words than females overall (Colley, Todd, Bland, Holmes, Khanom, & Pike, 2004; Newman, Groom, Handelman, & Pennebaker, 2008; Thomson & Murachver, 2001). Such findings were replicated in studies using letters written by males and females in the course of business (Sterkel, 1988). Thus, the masculine style e-mails are shorter and more direct, with fewer informal, personal statements.

After reading the pilot e-mails, participants completed items in response to their perceptions of the e-mail writer's gender (Appendix C, items 1 – 4) and the level of emotional content (items 5 – 6). Participants also completed items to assess potential control variables such as e-mail tone and how persuasive the manager was (items 7 – 9). Participants then rated the level of the social support (items 10 – 11), and action-oriented information (items 12 – 15) provided by the manager in the e-mails. This provided additional information on the perception of sex-linked traits conveyed in the communication.

The main goal of the study was to identify two e-mails, one clearly masculine in communication content and one clearly feminine in terms of communication content, for further use in the main study. In order to make this assessment, participants answered questions about the levels of agentic and communal traits displayed by the e-mail writer (Rudman & Glick scale, items 16 – 23 and 24 – 33, respectively) (Appendix C). These latter traits are associated with masculinity and femininity, respectively. Additional gender-neutral traits, including personality variables such as conscientiousness, were also assessed in order to reduce demand effects and make the items appear less overtly related to gender (items 34 – 42).

After participants completed a few demographic questions (items 43 – 46), they were asked to rank the e-mails from most masculine or feminine to least masculine or feminine, depending on the set of e-mails the participant read (item 47). They were also invited to comment on the e-mails. While ratings of agentic and communal traits were the

focus of the pilot, and were consistent with the methodology used in past research, I solicited rankings and comments to aid interpretation of the data.

### Procedure

Participants read a set of instructions before reading each e-mail and then completed items in response to each e-mail. Participants were randomly assigned to read either four masculine or four feminine e-mails. Surveys were completed online and participants attended a debriefing session in person later at which point they were informed about the true purpose of the study and thanked for their participation.

The researcher developed four pairs of e-mails and an attempt was made to match each pair in terms of the general content of the message, to avoid confounding unrelated variables (e.g., information level) of the message with agentic and communal traits. The masculine e-mail within each pair was designed to contain more masculine cues (e.g., direct communication style) while the feminine e-mail within each pair was designed to contain more feminine cues (e.g., adding questions to ends of sentences). No information was provided regarding the gender of the communicator. As noted earlier, the end goal of the pilot was to select one pair of these e-mails for further use in the main study.

### Results

Means of items assessing communal and agentic traits were computed for the items adapted from Rudman and Glick's work (1999). Because the items designed to measure agentic and communal traits were adapted from their original purpose, it was important to assess the reliability of these items. As detailed in the following discussion, the reliability of the communal trait scale and the reliability of the agentic trait scale met

professional standards. Information on item-total correlations and internal consistency follows.

Table 1. Pilot Study Results for Reliability of Communal Trait Items

| Item                             | Corrected Item-Total Correlation | Cronbach's Alpha if Item Deleted |
|----------------------------------|----------------------------------|----------------------------------|
| Kind                             | .896                             | .965                             |
| Warm                             | .914                             | .965                             |
| Sincere                          | .740                             | .971                             |
| Helpful                          | .765                             | .970                             |
| Likable                          | .896                             | .965                             |
| Friendly                         | .893                             | .965                             |
| Popular                          | .828                             | .968                             |
| Good Listener                    | .850                             | .967                             |
| Sensitive to the Needs of Others | .910                             | .965                             |
| Supportive                       | .911                             | .965                             |

Table 2. Pilot Study Results for Reliability of Agentic Trait Items

| Item                      | Corrected Item-Total Correlation | Cronbach's Alpha if Item Deleted |
|---------------------------|----------------------------------|----------------------------------|
| Independent               | .436                             | .882                             |
| Confident                 | .586                             | .867                             |
| Determined                | .648                             | .860                             |
| Computer-skilled          | .571                             | .869                             |
| Analytical                | .680                             | .857                             |
| Ambitious                 | .767                             | .847                             |
| Competitive               | .730                             | .851                             |
| Works Well Under Pressure | .697                             | .855                             |

Each participant completed these scales for each of the four e-mails he or she read. The agentic and communal scales were significantly positively correlated with each other,  $r = .526$ ,  $p < .01$ , indicating that responses to the two scales were significantly positively related. For the communal trait items, Cronbach's alpha was quite high at .970,

and somewhat smaller for agentic trait items at .877. Both internal consistency coefficients exceed the professional standard of .8. Because Cronbach's alpha was so high for both scales, and the item total correlations exceeded the professional standard of .4, no items were deleted before use in the main study.

The goal of the pilot study was to make sure that two e-mails, a masculine and a feminine, were selected that were rated significantly different from each other in terms of the communal and agentic traits of the e-mail writer. In other words, we wanted to choose a pair of e-mails that were perceived as clearly masculine and clearly feminine in terms of the communal-agentic distinction. Communality is clearly linked with femininity, and agentic traits are strongly linked with masculinity.

In the first step of this process, I wished to ensure that the feminine e-mail chosen for use in the main study actually received higher ratings of feminine or communal traits than masculine or agentic traits. This involved comparing the ratings of agentic and communal trait ratings *within* each feminine e-mail. Similarly, I compared the ratings of agentic and communal trait ratings *within* each masculine e-mail to ensure that there was a higher rating of agentic as compared to communal traits.

Descriptive statistics for the ratings of each individual masculine and feminine e-mail are provided in Table 3. Because I tried to match four pairs of e-mails in terms of confounding variables (aspects of the communication irrelevant to agentic/communal traits), the data are presented in pairs. "E-mail #1 Masculine" and "E-mail #1 Feminine" represent the data for the first matched pair of e-mails. Data are presented in a similar fashion for the remaining three pairs of e-mails.

Table 3. Descriptive Statistics for Agentic and Communal Trait Ratings of Pilot

E-mails

|           |           | Agentic Trait Ratings |           | Communal Trait Ratings |           |
|-----------|-----------|-----------------------|-----------|------------------------|-----------|
|           |           | <i>M</i>              | <i>SD</i> | <i>M</i>               | <i>SD</i> |
| E-mail #1 | Masculine | 4.38                  | 1.29      | 2.96                   | 1.07      |
|           | Feminine  | 4.65                  | 0.89      | 4.56                   | 0.68      |
| E-mail #2 | Masculine | 4.43                  | 0.65      | 4.59                   | 1.16      |
|           | Feminine  | 5.00                  | 0.99      | 5.15                   | 1.16      |
| E-mail #3 | Masculine | 4.89                  | 0.90      | 4.44                   | 1.40      |
|           | Feminine  | 4.11                  | 1.16      | 3.65                   | 1.07      |
| E-mail #4 | Masculine | 5.27                  | 0.81      | 5.72                   | 0.65      |
|           | Feminine  | 5.32                  | 1.05      | 5.77                   | 0.69      |

As can be seen from the pattern of data, none of the four e-mail pairs had a masculine e-mail with higher agentic than communal ratings and a feminine e-mail illustrating the reverse pattern of results. The first e-mail pair came closest to satisfying the selection criteria, with the masculine e-mail rated as more agentic than communal and the lowest mean communal trait rating of any e-mail. However, comparison of group means revealed that the feminine e-mail in the first pair was rated higher in agentic than communal traits. As will be noted later in the discussion, the first two e-mails were retained, and the feminine e-mail was revised.

In the second step of this process, I compared ratings of agentic and communal trait ratings of the feminine e-mail in the first pair to those for the masculine e-mail in the first pair (Table 4). The first significance column represents the contrast in *agentic*

*ratings* of the feminine and masculine e-mail in a given pair. The second significance column represents the contrast in *communal ratings* of a given e-mail pair.

Table 4. Significance Tests for Agentic and Communal Trait Ratings of Pilot Study E-mail Sets

|               | Agentic Trait Ratings |       | Communal Trait Ratings |       |
|---------------|-----------------------|-------|------------------------|-------|
|               | <i>F</i>              | Sig   | <i>F</i>               | Sig   |
| E-mail Set #1 | 454.60                | < .01 | 472.01                 | < .01 |
| E-mail Set #2 | 1063.00               | < .01 | 529.49                 | < .01 |
| E-mail Set #3 | 606.27                | < .01 | 295.00                 | < .01 |
| E-mail Set #4 | 987.32                | < .01 | 2114.82                | < .01 |

Analysis of Variance tests (ANOVAs) demonstrated that ratings of communal and agentic traits were significantly different from each other for each pair of e-mails (Table 4). For example, in the first set of e-mails, the e-mail writer was rated significantly more communal in the feminine e-mail ( $M = 4.56, SD = .68$ ) than was the writer of the masculine e-mail ( $M = 2.96, SD = 1.07$ ),  $F(1, 32) = 472.01, p < .01$ . However, the writer of the masculine e-mail ( $M = 4.38, SD = 1.29$ ) was not rated as significantly more agentic than the writer of the feminine e-mail ( $M = 4.65, SD = .89$ ) in this first e-mail pair. This was an initial cause of concern because the first set of e-mails had been singled out as most promising for further use earlier in the analysis. However, another ANOVA demonstrated that participants were significantly more confident that the first masculine e-mail was written by a male than were participants who rated the feminine e-mail,  $F(1, 28) = 10.87, p < .01$ . Similarly, the participants who rated the feminine e-mail from the first pair were significantly more confident that the e-mail was written by a female than were those who rated the masculine e-mail,  $F(1, 28) = 8.31, p < .01$ , thus providing

support for the first two hypotheses that proposed masculine e-mails would be rated as more likely to come from a male and feminine e-mails from a female.

To further aid selection of the best pair of e-mails, a Pearson's correlation was calculated to assess the strength and direction of the relationship between ratings of communality and agentic traits of the masculine and feminine e-mails. Table 5 demonstrates that the first set of e-mails is closest to the desired results, with the lowest positive correlation between agentic and communal trait ratings for the writer of the masculine e-mail ( $r = .674, p < .01$ ) and the most negatively correlated trait ratings for the feminine e-mail writer ( $r = -.306, p = .33$ ).

To further aid selection of the best pair of e-mails, a Pearson's correlation was calculated to assess the strength and direction of the relationship between ratings of communality and agentic traits of the masculine and feminine e-mails. Table 5 demonstrates that the first set of e-mails is closest to the desired results, with the lowest positive correlation between agentic and communal trait ratings for the writer of the masculine e-mail ( $r = .674, p < .01$ ) and the most negatively correlated trait ratings for the feminine e-mail writer ( $r = -.306, p = .33$ ).

Table 5. Correlations Between Agentic and Communal Ratings of Each E-mail Writer and Set of E-mails

|               | Pearson<br>Correlation | Sig. (2-<br>tailed) | N  |
|---------------|------------------------|---------------------|----|
| E-mail Set #1 |                        |                     |    |
| Masculine     | .674**                 | .001                | 20 |
| Feminine      | -.306                  | .334                | 12 |

| E-mail Set #2 |        |      |    |
|---------------|--------|------|----|
| Masculine     | .690** | .001 | 20 |
| Feminine      | -.041  | .901 | 12 |
| E-mail Set #3 |        |      |    |
| Masculine     | .416   | .068 | 20 |
| Feminine      | .766** | .004 | 12 |
| E-mail Set #4 |        |      |    |
| Masculine     | .279   | .234 | 20 |
| Feminine      | .775** | .005 | 11 |

\*\*Correlation is significant at the .01 level (2-tailed).

Participants were also asked to rate the most masculine or feminine e-mail that he or she read. Frequency ratings revealed that more than half of participants rated the first masculine e-mail as most masculine. While the first feminine e-mail was not similarly distinguished, nearly one-third of participants rated it the most feminine.

Table 6. Frequency Ratings of Most Masculine E-mail

|           | Frequency | Valid Percent |
|-----------|-----------|---------------|
| E-mail #1 | 10        | 52.6          |
| E-mail #2 | 3         | 15.8          |
| E-mail #3 | 6         | 31.6          |
| E-mail #4 | 0         | 0             |

Table 7. Frequency Ratings of Most Feminine E-mail

|           | Frequency | Valid Percent |
|-----------|-----------|---------------|
| E-mail #1 | 3         | 27.3          |
| E-mail #2 | 4         | 36.4          |
| E-mail #3 | 2         | 18.2          |
| E-mail #4 | 2         | 18.2          |

Overall, the evidence suggests that the first set of e-mails would best suit the purpose of this study. Thus, on the basis of this information, the masculine e-mail from the first pair of e-mails was selected for use in the main study. However, because the first e-mail was viewed as more agentic than communal, a second phase of the pilot study was conducted. Specifically, I rewrote the feminine e-mail to try to raise the level of communal traits displayed in the feminine e-mail relative to the level of masculine traits in the feminine e-mail.

#### Pilot Study: Phase Two

Due to the concerns about the feminine e-mails piloted in the first phase of the study, I revised the feminine e-mail from the first e-mail pair and included additional hedge words and other linguistic markers of feminine speech. I piloted the revised feminine e-mail from the first e-mail pair using a sample of ten new individuals and the same methodology as in the first phase of pilot testing. We retained the masculine e-mail in the first pair and did not re-pilot this stimulus material since ratings indicated that it was appropriate for use in the main study.

Mostly females were a part of this second pilot, with 8 females, 1 male, and 1 person who did not respond to the item asking about the participant's gender. This sample was a bit older than the first, ranging from 18 to 24 or older, with 55.6% of those who responded to this question choosing "24 or older." Sixty-percent were White/Caucasian, with 10% choosing Black/African-American, 10% Asian/Pacific-Islander, and 20% choosing Hispanic. Half the participants were in their 5<sup>th</sup> year or

beyond in school, with one sophomore (10%), one junior (10%), and 3 choosing “N/A” (30%).

The goal of this second phase was to confirm that the rewritten feminine e-mail was indeed perceived as higher in communal trait ratings and lower in agentic trait ratings. As is demonstrated in Table 8, the feminine e-mail was rated higher in communal than agentic traits. An ANOVA revealed a statistically meaningful difference between ratings of the communal and agentic trait ratings of the feminine e-mail,  $F(1, 9) = 29.44$ ,  $p < .01$ .

Table 8. Descriptive Statistics for E-mails To Be Used in Main Study

|                     | Agentic Trait Ratings |           | Communal Trait Ratings |           |
|---------------------|-----------------------|-----------|------------------------|-----------|
|                     | <i>M</i>              | <i>SD</i> | <i>M</i>               | <i>SD</i> |
| Feminine E-mail #1  | 3.65                  | 1.25      | 5.58                   | 1.34      |
| Masculine E-mail #1 | 4.38                  | 1.29      | 2.96                   | 1.07      |

A between-subjects *t*-test was conducted to determine whether the agentic and communal trait ratings were different for revised feminine e-mail #1 and masculine e-mail #1. In other words, it was important to demonstrate that the revised feminine e-mail was rated significantly higher than the masculine e-mail on ratings of communal traits and significantly lower on ratings of agentic traits. The difference in agentic traits approached significance,  $t(28) = -1.469$ ,  $p = .153$ , while the communal traits were significantly different,  $t(28) = 5.804$ ,  $p < .01$ . Further investigation revealed that mean ratings of communality and agentic traits were in the desired direction for this set of feminine and masculine e-mails. The feminine e-mail ( $M = 5.58$ ,  $SD = 1.34$ ) was rated as

more communal than the masculine e-mail ( $M = 2.96$ ,  $SD = 1.07$ ). Similarly, the masculine e-mail ( $M = 4.36$ ,  $SD = 1.29$ ) was rated as more agentic than the feminine e-mail ( $M = 3.65$ ,  $SD = 1.25$ ), a difference that approached significance. Thus, the results of both phases of the pilot study indicate full support for the first and second hypotheses, as more feminine, communal e-mails are more likely attributed to female writers and more masculine, agentic e-mails are more likely attributed to male writers.

All of these results indicate that the feminine e-mail was viewed as more communal than agentic when seen in isolation. It was also viewed as more communal and less agentic than the masculine e-mail. Thus, in absolute and relative comparisons of agentic and communal traits, the first set of paired e-mails satisfied the criteria for inclusion in the main study.

## Main Study

### Participants

Of the 174 persons who began the survey, 172 completed the survey and 157 answered the manipulation check item about the gender of the e-mail writer correctly. Thus, data for fifteen persons were dropped from analyses and data from 157 persons were used for analyses. Due to the large number of graduate students as well as those recruited from summer classes, nearly half of participants were 24 years of age or older (47.6%), with less than ten percent reporting that they were 18 (7.0%), 19 (8.4%), 21 (7.7%), 22 (4.9), and 23 (7.7%) and 16.8% reporting that they were 20 years of age. Similarly, 11.7% were freshman, 16.8% sophomores, 11.7% juniors, 8.8% seniors, 35.8%

were in their 5<sup>th</sup> year or beyond, 15.3% reported that this was not applicable, and 20 persons chose not to answer this item.

The majority of participants were female – 89 compared to 51 – with 17 persons choosing not to answer this item. The majority was also Caucasian/White (71.8%), with 12% Black/African-American, 4.2% Hispanic, 6.3% Asian/Pacific-Islander, 5.6% not identifying with any of these races or ethnic groups, and 15 persons choosing not to respond to this item. Majors ranged extensively, from Architecture to Computer Science, Culinary Science, Chemistry, Bioengineering, Psychology, and Math. Several individuals indicated that they were pursuing M.D., M.B.A., and J.D. degrees. The effects of these variables on the dependent variables of interest were examined, and when correlations were significant, these demographic variables were treated as control variables in subsequent analyses.

## Measures

### *Stimulus Materials*

As noted earlier, all of the performance appraisal feedback scenarios for this study were created by the author, drawing on previous studies that have examined negative feedback paradigms and gendered communication, particularly those that have demonstrated readers can correctly identify the gender of the writer (e.g., Thomson & Murachver, 2001). To develop the feedback-providing e-mails, the author adapted some of the research on gender differences in verbal communication (e.g., Ivy & Backlund, 2000; Pearson, West, & Turner, 1995; Tannen, 1990, 1994). It seems logical that these gender differences should translate to written communication, though pilot testing

ensured that the manipulation was effective. All sample communications were presented in the form of hypothetical e-mails (Appendix E).

Each participant received a set of instructions asking that he or she try to answer the questions in the order in which they were presented, which reduced demand characteristics as participants read more and more questions that might cue them to believe that the study was investigating gender effects (Appendix D). In a between-subjects design, the participant then reviewed one sample e-mail, consistent with one of the conditions - masculine style e-mail, with relatively more task-oriented information, attributed to a male or a female; or a feminine style e-mail, with relatively more socially supportive information and emotional content among other feminine features, attributed to a male or female - depending on the link he or she used to complete the survey. Links were distributed in no particular order and each participant saw only one e-mail in this between-subjects design. The name of the manager or writer was either Jacob or Emily, as these two were the most popular male and female names for babies born in the United States during the most recent decade, or the period of 2000 to 2008 (Social Security Administration, 2009). Participants then answered questions about the effectiveness of the feedback delivered in the e-mail, as well as the perceived effectiveness and competence of the manager (Appendices F, G, H).

The result of the pilot testing was one paired set of masculine and feminine e-mails (Appendix E). Pilot testing of the stimulus materials ensured that the measures used elicited the desired stereotypes. Pilot testing of the measures, many of which were created

for the purpose of the study, guaranteed that participants were asked to reflect on the gender of the feedback, as well as the utility of the feedback itself.

#### *Dependent Variable Measures*

*Feedback effectiveness.* In the main study, the effectiveness of feedback was assessed using a combination of items that asked the participant to rate the e-mail's clarity (Appendix C, items 1-3, 5-7), consistency (item 4), and efficiency of the e-mail in communicating changes to be made (items 8-11). Participants were also asked about whether they believed that the message could have been communicated more clearly or efficiently. Asking participants about the clarity and consistency of the message is suggested by performance appraisal literature suggesting that individuals tend to place more value in and follow suggestions made in feedback that seems clear and consistent (e.g., Bannister, 1986; Fisher, Ilgen, & Taylor, 1979). This 10-item scale had a Cronbach's alpha of .90, thus meeting professional standards.

*Perceptions of the manager.* As noted earlier, three separate ratings of the manager were used. *Overall managerial effectiveness* was measured through items that assessed the overall competence (Appendix G, items 5 – 10), as well as credibility and legitimacy of the manager (Appendix H, item 1). These variables were assessed because of concerns that they would need to be controlled for if they are highly correlated with masculinity or femininity, as items used in performance appraisal evaluation literature suggests (e.g., Sinclair & Kunda, 2000; Stone, Gueutal, & MacIntosh, 1984). Reliability for this scale met professional standards with a Cronbach's alpha value of .89.

Participants also rated the manager on a number of adjectives that have been used to measure the *agentic* and *communal traits* of an individual using a Likert-type scale ranging from 1 or “does not describe the e-mail writer at all” to 7 or “describes the e-mail writer extremely well” (Rudman & Glick, 1999). Agentic (Appendix G, scale adapted from Rudman & Glick, 1999; items 11 – 18) and communal traits (items 19 – 28) were scored separately. Agentic adjectives included “independent” and “confident” while communal adjectives include “good listener” and “popular.” These agentic and communal scales met professional standards with a Cronbach’s alpha values of .90 and .96, respectively. Additional adjectives measuring gender-neutral traits, particularly those dealing with conscientiousness, were assessed in order to decrease the likelihood that participants will deduce the true purpose of the study (items 29 – 36). Items were mixed together in the versions participants viewed in order to reduce the likelihood that the items appeared to be focused on gender-specific traits. Participants also rated how socially supportive and focused on relationships the manager seems, a measure of communal traits (Appendix G, items 1 – 2), and how directive and action-oriented the manager seemed, additional measures of agentic traits (items 3 – 4).

#### *Control Variables*

*Gender of participant.* The gender of the participant was coded and analyzed, though I did not anticipate any significant differences between male and female participants, as past research does not indicate any significant sex differences in perceptions of male and female managers and role incongruous behavior. Thus, we controlled for this variable.

*Experience with female manager.* Participants were asked about their experience with and length of employment with a female manager (Appendix H, items 6 – 7). We also controlled for this variable.

#### Procedure

Participants were recruited through the Human Participation in Research (HPR) system and signed up for the experiment online and were asked to complete the survey in a web-based format. These participants later attended a debriefing session where the experimenter explained the purpose of the experiment and were given a copy of the debriefing form and information (Appendix I), and finally thanked for their participation. Other participants were recruited through e-mails sent by the author and were also asked to complete the survey online. These participants were given the debriefing information online (Appendix H).

## CHAPTER THREE

### RESULTS

Prior to analysis, it was necessary to identify and remove univariate outliers or extreme cases in the Agentic, Communal, Managerial Effectiveness, and Feedback Effectiveness scales. Four points were identified using various measures of influence. Subsequently, these points were deleted, however, these points comprised less than 1% of the total data.

#### *Initial Analyses of Potential Control Variables*

As is evident in Table 9, relationships among the variables of interest varied in strength. Of particular interest, the participant's age, gender, number of jobs and time in jobs with female supervisors were significantly correlated with some of the dependent variables of interest. Thus, these variables were held constant in all subsequent analyses, and entered as covariates in analyses of variance or ANCOVAs. Holding these demographic variables constant eliminated the variance accounted for in the dependent measures by each control variable. No other adjustments were made to the data because range restriction was not an issue, with answers to single items spanning the full spectrum of the response scale and averages that, if rounded, would also span the response scale.

#### *Relationships Among the Dependent Variables*

Table 9 also shows that the three main dependent variables of interest— Agentic Traits, Communal Traits, and Managerial Effectiveness, and the fourth dependent measure, Feedback Effectiveness – were significantly correlated with each other ( $r > .4$ ),

- thus it was necessary to conduct additional steps. Separate Analysis of Variance or ANCOVAs on each dependent variable would be inappropriate because doing so increases experiment-wise error and essentially conducts the analysis on a correlated variable three times, greatly increasing the probability of a Type I error. Thus, a Multivariate Analysis of Covariance or MANCOVA was conducted in which the effect of both independent variables on all four dependent variables was examined simultaneously. The MANCOVA relevant to the hypotheses involving main effects of message gender demonstrated there was a significant effect of message gender – feminine or masculine – on all four relevant dependent variables,  $F(4, 126) = 25.45, p < .01, \eta^2 = .45$ . The effect of writer gender – whether the e-mail was sent by Emily or Jacob – only approached significance,  $F(4, 126) = 1.66, p = .17$ , however, because of the other significant results and because this value was approaching significance, I was able to conduct separate tests of the within-gender hypotheses.

Relevant to the second set of hypotheses involving the interaction between manager and communication gender, I also conducted a MANCOVA testing this effect. The interaction was significant,  $F(4, 123) = 2.65, p < .05, \eta^2 = .079$ . Because the result of this MANCOVA was a significant interaction, separate tests of the relevant independent variables on each of the four dependent variables are considered legitimate (H3 and H4).

Table 10. Overall MANCOVA Results

|                                     | <i>F</i> | <i>df</i> | <i>p</i> | $\eta^2$ |
|-------------------------------------|----------|-----------|----------|----------|
| Writer Gender                       | 1.66     | 4, 126    | .17      | .05      |
| Message Gender                      | 25.45    | 4, 126    | < .01    | .45      |
| Writer x Message Gender Interaction | 2.79     | 4, 126    | < .05    | .08      |

Before conducting tests of the hypotheses, I examined the equality of correlation coefficients between the groups. Of particular concern was the relationship between agentic and communal traits, as these were highly correlated in the pilot testing phase, and thus I tested the correlation between agentic and communal traits for the four conditions, expanding the typical test for the equality of two independent means (Neter, Kutner, Nachtsheim, & Wasserman, 1996) to include multiple groups according to the recommendations of Snedecor and Cochran (1989). I conducted a chi-square difference test examining the correlations between agentic and communal traits for the four conditions and found that there is not a significant difference in correlations,  $\chi^2(3) = .71$ ,  $p = .87$  (Table 11).

Similarly, further tests revealed that the correlation between agentic traits and managerial effectiveness were not significantly different across groups,  $\chi^2(3) = 5.33$ ,  $p = .15$ , as was the correlation between communal traits and managerial effectiveness,  $\chi^2(3) = 1.77$ ,  $p = .62$ . A last analysis examining the equality of correlations between agentic and communal traits and feedback effectiveness revealed that these correlations were also not significantly different across groups,  $\chi^2(3) = 4.18$ ,  $p = .24$  and  $\chi^2(3) = .16$ ,  $p = .98$ , for

agentic and communal traits respectively. This lends further support to the decision to test the hypotheses as originally proposed.

Table 11. Chi-Square Difference Tests for Equality of Correlations Across Conditions

|  | $X^2$ | $p$ |
|--|-------|-----|
| $r_{\text{agentic-communal}}$                  | .71   | .87 |
| $r_{\text{agentic-managerial effectiveness}}$  | 5.33  | .15 |
| $r_{\text{communal-managerial effectiveness}}$ | 1.77  | .62 |
| $r_{\text{agentic-feedback effectiveness}}$    | 4.18  | .24 |
| $r_{\text{communal-feedback effectiveness}}$   | .16   | .98 |

### *Hypothesis Testing*

Results of the first hypotheses involving anticipated results of the pilot study are reported in the previous section discussing the pilot study. The following set of results involve tests of the main hypotheses regarding within and between-gender effects of the independent variables.

### *Within-Gender Hypothesis Testing*

An ANCOVA comparing e-mails sent by Jacob revealed support for the third hypothesis. Jacob was judged as significantly more agentic when he sent a masculine e-mail ( $M = 4.96$ ,  $SE = .19$ ) than when he sent a feminine e-mail ( $M = 4.06$ ,  $SE = .24$ ),  $F(1, 79) = 6.77$ ,  $p = .01$ ,  $\eta^2 = .085$  (Tables 12, 13). A separate ANCOVA revealed that Jacob was also rated as significantly less communal when he was the author of more masculine e-mails ( $M = 3.37$ ,  $SE = .95$ ) than when he sent more feminine e-mails ( $M = 4.72$ ,  $SE = .24$ ),  $F(1, 73) = 14.63$ ,  $p < .01$ ,  $\eta^2 = .167$ . When Jacob wrote more masculine e-mails, he was actually rated only slightly more effective or competent ( $M = 4.08$ ,  $SE = .23$ ) than

when he was the author of more feminine e-mails ( $M = 4.04, SE = .29$ ), though this difference was not significant,  $F(1, 78) = .01, p > .05$ . Thus, the hypotheses suggesting that evaluations of a male manager's effectiveness depended on the communication style as well as the dimension of managerial performance under evaluation were supported. However, the male manager was not rated as significantly more effective when he communicated in a gender-consistent manner.

Table 12. ANCOVA Results for E-mails Sent by Jacob and Emily

|                          | From Emily |           |          |          |
|--------------------------|------------|-----------|----------|----------|
|                          | <i>F</i>   | <i>df</i> | <i>p</i> | $\eta^2$ |
| Agentic                  | 4.51       | 1, 60     | < .05    | .077     |
| Communal                 | 40.26      | 1, 60     | < .01    | .427     |
| Managerial Effectiveness | .80        | 1, 59     | > .05    | -        |
|                          | From Jacob |           |          |          |
|                          | <i>F</i>   | <i>df</i> | <i>p</i> | $\eta^2$ |
| Agentic                  | 6.77       | 1, 79     | .01      | .085     |
| Communal                 | 14.63      | 1, 73     | < .01    | .167     |
| Managerial Effectiveness | .01        | 1, 78     | > .05    | -        |

An ANCOVA comparing e-mails sent by Emily revealed partial support for the fourth hypothesis. Emily was judged as significantly more agentic when she sent a masculine e-mail ( $M = 4.62, SE = .29$ ) than a feminine e-mail ( $M = 3.66, SE = .26$ ),  $F(1, 60) = 4.51, p < .05, \eta^2 = .077$  (Tables 12, 13). An ANCOVA showed that Emily was rated as more communal when she wrote a feminine e-mail ( $M = 5.41, SE = .23$ ) than when she wrote a masculine e-mail ( $M = 2.92, SE = .25$ ),  $F(1, 60) = 40.26, p < .01, \eta^2 = .427$ . In terms of overall effectiveness, Emily received higher ratings when she wrote feminine e-mails ( $M = 4.17, SE = .31$ ) than masculine e-mails ( $M = 3.70, SE = .33$ ).

However, this difference was not significant,  $F(1, 59) = .803, p > .05$ . Thus, the hypothesis that suggested that ratings of the female manager's effectiveness depended on the particular managerial dimension under evaluation – whether they were communal or agentic traits - and the masculinity or femininity of the communication style was supported. I did not find that communicating in a gender-consistent manner had a significant effect on ratings of overall competence.

Table 13. Group Means for Relevant Dependent Variables

|                       | Agentic  |           | Communal |           | Managerial Effectiveness |           | Feedback Effectiveness |           |
|-----------------------|----------|-----------|----------|-----------|--------------------------|-----------|------------------------|-----------|
|                       | <i>M</i> | <i>SE</i> | <i>M</i> | <i>SE</i> | <i>M</i>                 | <i>SE</i> | <i>M</i>               | <i>SE</i> |
| Feminine Congruent    | 3.66     | .26       | 5.41     | .23       | 4.17                     | .31       | 4.58                   | .25       |
| Feminine Incongruent  | 4.62     | .29       | 2.92     | .25       | 3.70                     | .33       | 4.45                   | .27       |
| Masculine Congruent   | 4.96     | .19       | 3.38     | .19       | 4.08                     | .23       | 4.84                   | .22       |
| Masculine Incongruent | 4.06     | .24       | 4.72     | .24       | 4.04                     | .29       | 4.43                   | .26       |

Note: Feminine congruent refers to feminine style e-mails sent by Emily, while feminine incongruent are masculine style e-mails sent by Emily. Masculine congruent refers to masculine e-mails sent by Jacob and masculine incongruent refers to feminine e-mails sent by Jacob.

#### *Cross-Gender Hypothesis Testing*

In order to test the between-gender hypotheses (H5), all data from e-mails written by both Emily and Jacob was examined. A 2x2 ANCOVA with participant's gender, age, jobs, and experience with a female supervisor as covariates revealed the masculinity and femininity of the e-mail message and the gender of the e-mail writer did not significantly interact to predict agentic trait ratings,  $F(1, 139) = .138, p > .05$  (Table 14).

Table 14. Group Means for Relevant Cross-Gender Hypothesis Tests

|                        | Agentic Traits |           | Communal Traits |           |
|------------------------|----------------|-----------|-----------------|-----------|
|                        | <i>M</i>       | <i>SE</i> | <i>M</i>        | <i>SE</i> |
| Masculine Style E-mail | 4.80           | .16       | 3.17            | .15       |
| Feminine Style E-mail  | 3.85           | .17       | 5.06            | .16       |
| E-mails from Jacob     | 4.53           | .13       | 4.04            | .13       |
| E-mails from Emily     | 4.13           | .15       | 4.19            | .14       |

A main effect for the femininity/masculinity of the communication emerged, with more masculine e-mails viewed more positively on agentic traits,  $F(1, 131) = 12.44, p < .01, \eta^2 = .087$  and mean score of 4.80 ( $SE = .16$ ) compared to 3.85 ( $SE = .17$ ) for more feminine e-mails (Table 15).

Table 15. ANCOVA Results for Cross-Gender Analyses

| Agentic Trait Ratings               |          |           |          |          |
|-------------------------------------|----------|-----------|----------|----------|
|                                     | <i>F</i> | <i>df</i> | <i>p</i> | $\eta^2$ |
| Message Gender                      | 12.44    | 1, 131    | < .01    | .087     |
| Writer Gender                       | 3.90     | 1, 131    | .05      | .029     |
| Message x Writer Gender Interaction | .138     | 1, 139    | > .05    | -        |
| Communal Trait Ratings              |          |           |          |          |
|                                     | <i>F</i> | <i>df</i> | <i>p</i> | $\eta^2$ |
| Message Gender                      | 45.83    | 1, 131    | < .01    | .300     |
| Writer Gender                       | .60      | 1, 131    | > .05    | -        |
| Message x Writer Gender Interaction | 6.54     | 1, 139    | .01      | .048     |
| Managerial Effectiveness            |          |           |          |          |
|                                     | <i>F</i> | <i>df</i> | <i>p</i> | $\eta^2$ |
| Message Gender                      | .44      | 1, 129    | > .05    | -        |
| Writer Gender                       | .36      | 1, 129    | > .05    | -        |
| Message x Writer Gender Interaction | .42      | 1, 137    | > .05    | -        |
| Feedback Effectiveness              |          |           |          |          |
|                                     | <i>F</i> | <i>df</i> | <i>p</i> | $\eta^2$ |
| Message Gender                      | .21      | 1, 128    | > .05    | -        |
| Writer Gender                       | .30      | 1, 128    | > .05    | -        |
| Message x Writer Gender Interaction | 1.46     | 1, 137    | > .05    | -        |

Similarly, there was a main effect for rater gender, with Jacob rated as significantly more agentic ( $M = 4.53$ ,  $SE = .13$ , compared to  $M = 4.13$ ,  $SE = .15$ ) than was Emily,  $F(1, 131) = 3.90$ ,  $p = .05$ ,  $\eta^2 = .029$  (Figure 1). This is an interesting effect because it means that simply putting a male name on the e-mail resulted in significantly higher ratings of agentic personality traits, regardless of the nature of the communication associated with the male manager.

Another ANCOVA revealed a significant manager gender by message gender interaction on communal trait ratings,  $F(1, 139) = 6.54$ ,  $p = .01$ ,  $\eta^2 = .048$  (Figure 2).

There was a main effect of message gender on communal trait ratings,  $F(1, 131) = 45.83$ ,  $p < .01$ ,  $\eta^2 = .30$ , with more feminine e-mails receiving higher communal scores ( $M = 5.06$ ,  $SE = .16$ ) than masculine e-mails ( $M = 3.17$ ,  $SE = .15$ ). Post-hoc tests revealed that virtually all of the four message conditions yielded ratings of communality that were significantly different, even using Tukey's post-hoc test, which is more conservative than other standards. The feminine congruent condition generated the highest ratings of communality, which provided partial support for H5 (Table 16). In other words, ratings of communality were disproportionately higher when a female provided feminine feedback than in any other condition. Paired comparisons also show that males who delivered more feminine feedback were still considered less communal than females who provided communal feedback, suggesting a natural boost for ratings of sex-congruent traits when message and writer gender are congruent. This also demonstrates that males may be at a disadvantage when evaluated on more feminine traits.

Table 16. Significance Tests for Ratings of Communal Traits

|                       | <i>M</i> | <i>SE</i> | Significance of Post-Hoc Comparison Tests |                          |                       |                         |
|-----------------------|----------|-----------|---|--------------------------|-----------------------|-------------------------|
|                       |          |           | Masculine<br>Congruent                    | Masculine<br>Incongruent | Feminine<br>Congruent | Feminine<br>Incongruent |
| Masculine Congruent   | 3.35     | .19       | -   |                          |                       |                         |
| Masculine Incongruent | 4.75     | .23       | .00                                       | -                        |                       |                         |
| Feminine Congruent    | 5.38     | .21       | .00                                       | .07                      | -                     |                         |
| Feminine Incongruent  | 3.00     | .23       | .31                                       | .00                      | .00                   | -                       |

Note: Significance values are reported for Tukey HSD post-hoc tests.

Lastly, writer and message gender did not significantly interact to predict overall managerial effectiveness,  $F(1, 137) = .422, p > .05$ , demonstrating that hypothesis 3 was partially supported. Thus, hypotheses 5a and 5c were not supported, while hypothesis 5b was supported by the results.

#### *Exploratory Analysis*

Though there was no formal, directional hypothesis regarding the fourth dependent variable, feedback effectiveness, this variable was measured in order to explore its relationship with gender. To that end, a separate ANCOVA with feedback effectiveness as the dependent variable revealed that there was not a significant effect of either writer,  $F(1, 128) = .30, p = .59$ , or message gender,  $F(1, 128) = .21, p = .65$ , nor an interaction between the two on feedback effectiveness,  $F(1, 128) = 1.46, p = .65$  (Table 15). Thus, the exploratory analysis of message and feedback gender on feedback effectiveness revealed a lack of any significant effects.

## CHAPTER FOUR

### DISCUSSION

Ultimately, these results provide reasons to be cautiously optimistic about the state of gender equality in the workplace for women. Not surprisingly, individuals reacted differently to masculine and feminine e-mails, empirically confirming participants' initial qualitative reactions, as displayed in unsolicited comments about the e-mails. Also not surprisingly, the results confirmed Eagly and Karau's Role Congruity Theory (2002), demonstrating that males and females are rated higher on measures of sex-congruent traits when the individual behaves in a sex-congruent manner, as was shown in the within-gender hypotheses. However, because neither writer nor message gender, nor the interaction of the two, significantly predicted ratings of overall managerial effectiveness, there is hope that subtle prejudice continues to fade with time. Essentially, participants did seem to judge the hypothetical leaders to be more agentic or communal based upon the masculinity or femininity of the e-mails, but these ratings were not accompanied by more critical, evaluative judgments about the manager's efficacy.

However, it is still important to note that participants reliably judged hypothetical males and females to be rather different on measures of particular personality traits, with females receiving higher communal trait ratings regardless of more situational cues such as a communal e-mail. This was evident from the analyses that revealed the female associated with the more feminine e-mail was rated as more communal than the male whose name was attached to the same e-mail. Thus, it is important to remember that while participants may not overtly judge these hypothetical writers in terms of

competence and efficacy, subtler judgments based upon gender persisted. Because of the existing literature demonstrating the congruence of masculine traits with those of the ideal leader (e.g., Johnson, Murphy, Zewdie, & Reichard, 2008; Sczesny, 2003), these results hint that subtle discrimination and prejudice exists. It is quite possible that the participants – many of whom had real world work experience and psychological course work – were able to answer questions about the manager’s competence to appear unbiased, a socially and legally desirable response. This suggests that effects of gender of manager and the masculinity/femininity of communication style are not simple, but depend in part on the fit between the communicator gender and message gender, as well as the particular aspect of managerial performance under evaluation.

#### *Methodological Strengths*

This study contributes to the literature in several ways. First, the literature and theoretical rationale for the current study draws on existing research in industrial and organizational psychology, social psychology, sociology, and linguistics. Second, the use of an extensive pilot study, with multiple phases, guaranteed that the stimulus materials were feminine or masculine, and thus either congruent or incongruent with the male or female name attached to them. Often, researchers cannot reject the null hypothesis, yet cannot determine whether the lack of significant differences is due to a true lack of group differences or a failure of the manipulation. In this case, the results are attributable to the e-mail messages and the writer gender.

Third, conclusions from the current study are strengthened by several methodological strengths. Of particular importance is the true experimental nature of the

study, a method rarely used yet most useful when drawing causal inferences (Shadish, Cook, & Campbell, 2002). This study also utilized an extensive pilot study process, as described previously, as well as both within- and between-subjects components. A combination of these methods protects the current claims from multiple threats to internal and external validity, most notably testing effects that may occur when participants complete a measure more than once (Campbell & Stanley, 1963; Cook & Campbell, 1979). The sample size of the current study was another methodological strength, as it was approximately the same size as or larger than similar published studies, including those in top-tier journals (e.g., Heilman, Block, & Lucas, 1992; Johnson, Murphy, Zewdie, & Reichard, 2008).

The conclusions of the current study are also bolstered by the statistical techniques used. Despite removal of univariate outliers, which comprised less than one-percent of the data, range restriction was not an issue. Participants used the full response scale offered and when rounding the composite scores for variables, such as agentic trait averages, the resulting composite scores used the entire spectrum of the response scale. Because range restriction was not an issue here, there were no issues related to underestimation of effects or overcorrection (e.g., Sackett, Laczko, & Arvey, 2002). Additionally, potential confounding variables were examined and when they were significantly correlated with dependent variables, they were held constant and entered as covariates, thus protecting the relationships between the independent and dependent variables.

### *Implications for Future Research*

Future studies could benefit from further pilot testing and exploration of the effects of longer e-mails and communication, as well as potential qualitative analysis of the impact of the different dimensions of speech that were explored in the current study for both men and women. However, the contribution of the current study stems from examining evaluations of both male and female-typed managerial traits as a function of gendered communications, rather than simply overall evaluations of managerial skills. Additionally, the findings from the current study are strengthened because of the extensive pilot testing involved in creating the stimulus materials, as well as the use of linguistic research in writing these e-mails.

In conducting this research, a number of comments from participants indicated substantial perceived gender differences inspiring a spectrum of reactions from raters. A more thorough investigation could aid in the determination of the strength and direction of these reactions. While Eagly and Carli (2007) explain that a labyrinth rather than a glass ceiling thwarts women's workplace advancement, it may be that different managerial tasks are associated with their own unique obstacles.

## APPENDICES

## Appendix A

### **Pilot Study Instructions**

You have been invited to participate in this study as a part of our research aiding in the development of a new performance appraisal system for a major local company. Please read the sample e-mail included here and answer the questions that follow regarding the nature of the feedback. It is very important that you read these scenarios carefully, and respond to the questions honestly. The findings of this study will contribute to our understanding of performance appraisal and how it influences those who receive performance feedback. There is a space provided for your comments at the end of most questions and we would greatly appreciate your comments and ideas regarding the sample e-mails. Please identify any problems or issues you see in the e-mails, and feel free to edit or proofread the e-mails included in the packet by adding comments in to the e-mails or including those at the end of the document under general comments.

We ask that you please answer the questions in the order they are presented and do not go back to questions you have already answered.

Thank you again for your participation in this study!

## Appendix B

### **Pilot Study E-Mails**

#### **E-mail Set #1 - Feminine style, Powerpoint task**

2/12/2008, 11:22am

Re: presentation for 2/13

I got the powerpoint presentation you put together - I appreciate how quickly you were able to do this!

A few suggestions:

- Fix spelling on slide #3
- Be more consistent in tone of voice/style throughout the presentation
- Try to explain example on slide #8 more clearly for non-experts we will present to
- Try to change the color scheme so that titles of slides are easier to read

If you could make these changes by the time you leave today at 5pm, I'd appreciate it. That way I can edit it tonight and tomorrow before we make the presentation, you know? Thanks!

#### **E-mail Set #1 - Masculine style, Powerpoint task**

2/23/2008, 9:08am

Re: powerpoint

Need you to make some changes on the presentation before our meeting tomorrow:

- Spell check all slides
- Use solid colors for slide titles/backgrounds
- Re-write to make some examples (e.g., slide #8) more clear for those without expert knowledge
- Cut use of first-person

I need this before you leave today.

#### **E-mail Set #2 - Feminine style, manuscript revisions**

3/08/2008, 2:32pm

Re:

Thanks for your hard work on this manuscript! I think we're getting close to the final draft stage. If you could make a few changes, that'd really help us get there.

If you could find some more references to support the second hypothesis, that would help. We're going to need to beef up that section before we submit this paper. Plus, I think we should put in some more modern references regarding factors that influence feedback effectiveness. We also need a table that presents the descriptive statistics, so if you could make that, that would help... make sense? If you could get this done by the end of the week, we can have a final draft done several days before we have to submit the manuscript to the conference.

### **E-mail Set #2 - Masculine style, manuscript revisions**

3/28/2008, 1:42pm

Re:

Need to go through a couple more drafts before we can submit this to the conference. Need to include some more modern references in the paragraph about factors influencing feedback effectiveness. Also you need to make a table of descriptive statistics for appendix and send it back to me by the end of the week. Thanks.

### **E-mail Set #3 – Feminine style, notes on video**

04/22/2008, 2:23pm

Re:

Got your notes on those videotaped interviews. I am going to go back and watch some of those later tapes that seem particularly relevant to our project. However, I was hoping you could go back and review the first three tapes because I will not have time to watch them and I would like a few more details before I make the presentation on this topic. So if you could go back and review your notes and those tapes and make sure you get down all the names of the experts interviewed (and their professional affiliations) and really try to make sure you get all the points that person is making and which questions he or she is responding to. I think that will also help me get a feel for how much each person is interviewed or featured in this tape, you know? If you could get that done by the end of the week, I'd appreciate it. Thanks!

### **E-mail Set #3 – Masculine style, notes on video**

04/22/2008, 3:32pm

Re:

Got your notes on those videotaped interviews. Still need you to make some more extensive notes on some of the earlier videos before I make a presentation on them. I'll probably watch the last couple, so I just need you to give me some more details on the interviews in the first three tapes. Make sure you get down the details of each interview – questions the person is asked, correctly spelled name and professional affiliation, and answers. I need this by the end of the week.

**E-mail Set #4 – Feminine style, literature review**

05/28/2008, 3:20pm

Re:

Good job with this draft of the literature review. You really cleaned up the writing and made the connections between previous research and our hypotheses clearer. For this next draft, it would be great if you could beef up some of the references in the first section – a couple more modern references and get a few from journals outside of strictly social psychology. I think that makes that first section a little stronger, which is important because it's possibly the most controversial section yet crucial to accepting our hypotheses. You know what I mean? I also think it would help if you could create some graphs to demonstrate the interactions we've hypothesized. Then I think we are getting close to this part of the paper being finished. Thanks for your hard work on this and just e-mail me the next draft as soon as you can!

**E-mail Set #4 – Masculine style, literature review**

05/28/2008, 2:52pm

Re:

Got a chance to review your changes to the literature review. The connections between previous research and our hypotheses are clearer in this draft. For the next draft, you just need to work on that first section in order to make it stronger. This will probably require a few more references from more than just social psychological journals and more modern references. Then, you need to make graphs of the hypothesized interactions. Once you do this, send it back to me as soon as you can and I'll take a look. Probably not too many more drafts necessary before we can look at the next sections of the paper.

## Appendix C

### **Pilot Study Measures**

*(Note: All headings were removed from the copy of the survey that participants received and items from various scales were mixed together in order to reduce demand characteristics.)*

*Please rate this e-mail on the following dimensions.*

#### **GENDER OF MANAGER AND E-MAIL**

1. How masculine do you think this e-mail is?

|                            |   |   |   |   |   |                   |
|----------------------------|---|---|---|---|---|-------------------|
| 1                          | 2 | 3 | 4 | 5 | 6 | 7                 |
| NOT<br>masculine<br>at all |   |   |   |   |   | Very<br>masculine |

2. How feminine do you think this e-mail is?

|                           |   |   |   |   |   |                  |
|---------------------------|---|---|---|---|---|------------------|
| 1                         | 2 | 3 | 4 | 5 | 6 | 7                |
| NOT<br>feminine<br>at all |   |   |   |   |   | Very<br>feminine |

3. How confident are you that the manager is a male?

|                        |   |   |   |   |   |                      |
|------------------------|---|---|---|---|---|----------------------|
| 1                      | 2 | 3 | 4 | 5 | 6 | 7                    |
| Definitely NOT<br>male |   |   |   |   |   | Definitely a<br>male |

4. How confident are you that the manager is a female?

|                          |   |   |   |   |   |                        |
|--------------------------|---|---|---|---|---|------------------------|
| 1                        | 2 | 3 | 4 | 5 | 6 | 7                      |
| Definitely NOT<br>female |   |   |   |   |   | Definitely a<br>female |





- 22. Competitive
- 23. Works well under pressure

*[Communal Traits]*

- 24. Kind
- 25. Supportive
- 26. Warm
- 27. Sincere
- 28. Helpful
- 29. Likable
- 30. Friendly
- 31. Popular
- 32. Good listener
- 33. Sensitive to the needs of others

*[Neutral Personality Traits]*

- 34. Full of energy
- 35. Conscientious
- 36. Is a reliable worker
- 37. Tries to follow the rules
- 38. Perseveres until the task is finished
- 39. Pays attention to details
- 40. Does a thorough job
- 41. Makes plans and follows through with them
- 42. Does things efficiently

**DEMOGRAPHIC INFORMATION**

- 43. Age: \_\_\_\_\_
- 44. Gender
  - a. Male
  - b. Female
- 45. Race/ethnicity
  - a. White/Caucasian
  - b. Black/African-American
  - c. Hispanic
  - d. Asian/Pacific Islander
  - e. Other
- 46. Year in School
  - a. Freshman
  - b. Sophomore
  - c. Junior
  - d. Senior

- e. 5<sup>th</sup> Year or beyond

**SUGGESTIONS**

Please indicate any comments about the feedback and sample e-mail in the space below. This can be any idea or suggestion you have for improvement, or any errors you found in the e-mail itself.

**ALL E-MAILS**

47. Please rate the e-mails in order of least masculine/feminine to most masculine/feminine by putting the number of the e-mail (1 for the e-mail that appeared first in your packet, 2 for the second e-mail, etc.) next to the corresponding level of masculinity/femininity.

- a. MOST masculine/feminine:
- b. *Second* MOST masculine/feminine:
- c. *Second* LEAST masculine/feminine:
- d. LEAST masculine/feminine:

## Appendix D

### **Instructions for Main Study**

You have been invited to participate in this study as a part of our research aiding in the development of a new performance appraisal system for a major local company.

Please read the following sample e-mail and answer the questions that follow. It is very important that you read these scenarios carefully, and respond to the questions honestly. The findings of this study will contribute to our understanding of performance appraisal and how it influences those who receive performance feedback. We ask that you please answer the questions in the order they are presented and do not go back to questions you have already answered as you read more questions. We want your first instincts or “gut reactions” and if you alter your answers, we will not be able to get those answers. However, you will be asked some questions about what you read later so that we can measure your impressions and memory of the material, so it is important to pay attention.

Thank you again for your participation in this study!

## Appendix E

### **Main Study E-Mails**

#### **Feminine E-mail**

*Used in Feminine Congruent and Masculine Incongruent Conditions (as well as Feminine E-mail Re-pilot)*

From: Jacob/Emily Smith  
2/12/2008, 11:22am  
Re: presentation for 2/13

I got the powerpoint presentation you put together - I appreciate how quickly you were able to do this! I've been trying to think about some suggestions for you. If you decide not to follow these, that's okay, too.

Here are a few suggestions. I think it might be helpful if you could fix the spelling on slide #3. If you were more consistent in tone of voice/style throughout the presentation, that would be great too. Also, it would be helpful to try to explain example on slide #8 more clearly for the non-experts we will present to. And lastly, I'm not sure, but if you could try to change the color scheme so that titles of slides are easier to read, I think that would help. What do you think?

If you could make these changes by the time you leave today at 5pm, I'd appreciate it. That way I can edit it tonight and tomorrow before we make the presentation, you know? Thanks!

#### **Masculine E-mail**

*Used in Masculine Congruent and Feminine Incongruent Conditions*

From: Jacob/Emily Smith  
2/23/2008, 9:08am  
Re: powerpoint

Need you to make some changes on the presentation before our meeting tomorrow: Spell check all slides. Use solid colors for slide titles/backgrounds. Re-write to make some examples (e.g., slide #8) more clear for those without expert knowledge. Cut use of first-person.

Appendix F

**Main Study Measures of Feedback**

*(Note: All headings were removed from the survey that participants received in order to reduce demand characteristics.)*

**FEEDBACK EFFECTIVENESS**

**CLARITY/AMBIGUITY AND GENERAL FEEDBACK EFFECTIVENESS**

1. How clear did you find this e-mail?

|                    |   |   |   |   |   |                  |
|--------------------|---|---|---|---|---|------------------|
| 1                  | 2 | 3 | 4 | 5 | 6 | 7                |
| Completely UNclear |   |   |   |   |   | Completely clear |

2. Did you understand what the e-mail writer is trying to communicate?

|                               |   |   |   |   |   |                           |
|-------------------------------|---|---|---|---|---|---------------------------|
| 1                             | 2 | 3 | 4 | 5 | 6 | 7                         |
| Did not understand everything |   |   |   |   |   | Did understand everything |

3. Did you understand the changes suggested in the e-mail?

|  |   |   |   |   |   |                                      |
|--|---|---|---|---|---|--------------------------------------|
| 1  | 2 | 3 | 4 | 5 | 6 | 7                                    |
| Did NOT understand all suggested changes |   |   |   |   |   | Did understand all suggested changes |

4. How consistent did you think the message was?

|                   |   |   |   |   |   |                 |
|-------------------|---|---|---|---|---|-----------------|
| 1                 | 2 | 3 | 4 | 5 | 6 | 7               |
| Very INconsistent |   |   |   |   |   | Very consistent |

5. Did the e-mail provide enough direction so that the subordinate should be able to make the suggested changes?

|                             |   |   |   |   |   |                            |
|-----------------------------|---|---|---|---|---|----------------------------|
| 1                           | 2 | 3 | 4 | 5 | 6 | 7                          |
| NOT nearly enough direction |   |   |   |   |   | More than enough direction |

6. How direct is the feedback?

|            |   |   |   |   |   |             |
|------------|---|---|---|---|---|-------------|
| 1          | 2 | 3 | 4 | 5 | 6 | 7           |
| NOT direct |   |   |   |   |   | Very direct |

7. If this e-mail was sent to you, would you make the changes the supervisor is suggesting?

|                               |   |   |   |   |   |                                      |
|-------------------------------|---|---|---|---|---|--------------------------------------|
| 1                             | 2 | 3 | 4 | 5 | 6 | 7                                    |
| Would NOT make<br>the changes |   |   |   |   |   | Definitely would<br>make the changes |

**EFFICIENCY/ECONOMY OF WORDS**

8. Did the supervisor effectively communicate the message?

|  |   |   |   |   |   |                                  |
|--|---|---|---|---|---|----------------------------------|
| 1                                      | 2 | 3 | 4 | 5 | 6 | 7                                |
| NOT at all effectively<br>communicated |   |   |   |   |   | Very effectively<br>communicated |

9. Did the supervisor efficiently communicate the message?

|                        |   |   |   |   |   |                  |
|------------------------|---|---|---|---|---|------------------|
| 1                      | 2 | 3 | 4 | 5 | 6 | 7                |
| NOT at all efficiently |   |   |   |   |   | Very efficiently |

10. Could the message have been communicated in a more direct style?

|  |   |   |   |   |   |  |
|--|---|---|---|---|---|--|
| 1                                      | 2 | 3 | 4 | 5 | 6 | 7  |
| Could have been<br>communicated better |   |   |   |   |   | Could NOT have<br>been communicated better |

11. Could this idea have been communicated more efficiently?

|   |   |   |   |   |   |   |
|---|---|---|---|---|---|---|
| 1   | 2 | 3 | 4 | 5 | 6 | 7   |
| Could have been<br>communicated more<br>efficiently |   |   |   |   |   | Could NOT have<br>been communicated<br>more efficiently |





12. Sincere
13. Helpful
14. Likable
15. Friendly
16. Popular
17. Good listener
18. Sensitive to the needs of others

*[Neutral Personality Traits]*

19. Full of energy
20. Conscientious
21. Is a reliable worker
22. Tries to follow the rules
23. Perseveres until the task is finished
24. Pays attention to details
25. Does a thorough job
26. Makes plans and follows through with them
27. Does things efficiently



7. If you combine the time you worked for a female manager, supervisor, or leader, at all jobs or in all capacities, for how long did you work for a female manager?
- a. Never
  - b. Less than 1 month
  - c. 1 -3 months
  - d. 3-8 months
  - e. 9-12 months
  - f. 1-2 years
  - g. 3-5 years
  - h. 5 or more years

**MANIPULATION CHECK**

8. What was the gender of the person who WROTE the e-mail?
- a. Male
  - b. Female

## Appendix I

### **Debriefing Form**

Thank you for participating in this study!

#### **Purpose of the Study**

You were told that this was a study to investigate what makes feedback effective and helpful, and while that will be examined in this study, the primary focus of this investigation is to understand how stereotypically “feminine” and “masculine” feedback differ. We are interested in understanding whether more feminine feedback that focuses on maintaining social harmony and protecting others feelings is less effective than masculine feedback. Delivering feedback is an important part of most managerial jobs and thus it is important to understand the ways that gender differences, or perceived gender differences, may contribute to stereotypes and differential treatment based on gender.

#### **Final Report**

If you would like to learn more about this study or receive a copy of the results of this study upon completion, please contact the primary investigator, Dr. Mary Anne Taylor, whose contact information is listed below.

#### **Concerns**

If you have any questions about the study, or about the deception involved, please feel free to contact either individual listed at the bottom of this form. If you have any questions or concerns about this study or your rights as a research participant, please contact the Clemson University Office of Research Compliance at 864.656.6460.

You may feel free to keep a copy of this debriefing form for your records. Thank you again for your participation in this study!

Dr. Mary Anne Taylor  
410L Brackett Hall  
864.656.4174  
taylorm@clemson.edu

Melissa Waitsman  
315 Brackett Hall  
mwaitsm@clemson.edu

Table 9.

*Means, Standard Deviations, Intercorrelations, and Reliability Estimates Among Study Variables*

| Variable                             | <i>M</i> | <i>SD</i> | 1 | 2   | 3     | 4    | 5    | 6    | 7     | 8     | 9     | 10    | 11    |
|--------------------------------------|----------|-----------|---|-----|-------|------|------|------|-------|-------|-------|-------|-------|
| 1 <i>Writer Gender</i>               | .44      | .50       | - | .12 | -.05  | .12  | .00  | .08  | .21*  | -.18* | .10   | -.04  | -.04  |
| 2 <i>Message Gender</i>              | .47      | .50       |   | -   | .65** | .18* | .15  | .12  | .27** | -.29* | .52** | .06   | -.18  |
| 3 <i>Age</i>                         | 5.07     | 2.15      |   |     | -     | .01  | -.04 | -.03 | -.05  | -.14  | .42** | .43** | .48** |
| 4 <i>Gender</i>                      | .63      | .48       |   |     |       | -    | .11  | .00  | .12   | .00   | .03   | .04   | -.03  |
| 5 <i>Race/Ethnicity</i>              | 1.62     | 1.18      |   |     |       |      | -    | .10  | -.03  | .01   | .04   | .11   | -.05  |
| 6 <i>Jobs with Female Supervisor</i> | 3.32     | 1.56      |   |     |       |      |      | -    | .63** | -.06  | .09   | .03   | -.05  |
| 7 <i>Time with Female Supervisor</i> | 5.72     | 2.08      |   |     |       |      |      |      | -     | -.03  | .13   | .04   | .03   |
| 8 <i>Agentic Traits</i>              | 4.41     | 1.21      |   |     |       |      |      |      |       | (.90) | .02   | .60** | .66** |
| 9 <i>Communal Traits</i>             | 4.07     | 1.43      |   |     |       |      |      |      |       |       | (.96) | .52** | .26** |
| 10 <i>Managerial Effectiveness</i>   | 4.02     | 1.33      |   |     |       |      |      |      |       |       |       | (.89) | .74** |
| 11 <i>Feedback Effectiveness</i>     | 4.62     | 1.25      |   |     |       |      |      |      |       |       |       |       | (.90) |

Note: Internal consistency reliability estimates are plotted on the diagonal.

\*  $p < .05$  (two-tailed). \*\*  $p < .01$  (two-tailed).

Writer Gender was coded as 0 = Male, 1 = Female. Message Gender was coded as 0 = Masculine, 1 = Feminine. Age was coded as 1 = 18 years, 2 = 19 years, 3 = 20 years, 4 = 21 years, 5 = 22 years, 6 = 23 years, 7 = 24 years or older. Gender was coded as 0 = Male, 1 = Female. Race/ethnicity was coded as 1 = White/Caucasian, 2 = Black/African-American, 3 = Hispanic, 4 = Asian/Pacific Islander, 5 = Other. Jobs with Female Supervisor was coded as 1 = 0 jobs, 2 = 1 job, 3 = 2 jobs, 4 = 3 jobs, 5 = 4 jobs, 6 = 5 jobs, 7 = 6 jobs, 8 = 7 or more jobs. Time with Female Supervisor was coded as 1 = Never, 2 = Less than 1 month, 3 = 1 – 3 months, 4 = 4 – 8 months, 5 = 9 – 12 months, 6 = 1 – 2 years, 7 = 3 – 5 years, 8 = 5 or more years.

Range of jobs with female supervisors ranged from 1 to 8, time with female supervisor ranged from 1 to 8 agentic trait average from 1.25 to 7, communal traits average range from 1.10 to 7, managerial effectiveness from 1 to 7, feedback effectiveness from 1 to 7.

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## Figure Captions

*Figure 1.* Effect of Message Gender x Writer Gender Interaction on Agentic Trait Ratings

*Figure 2.* Effect of Message Gender x Writer Gender Interaction on Communal Trait Ratings

Figure 1

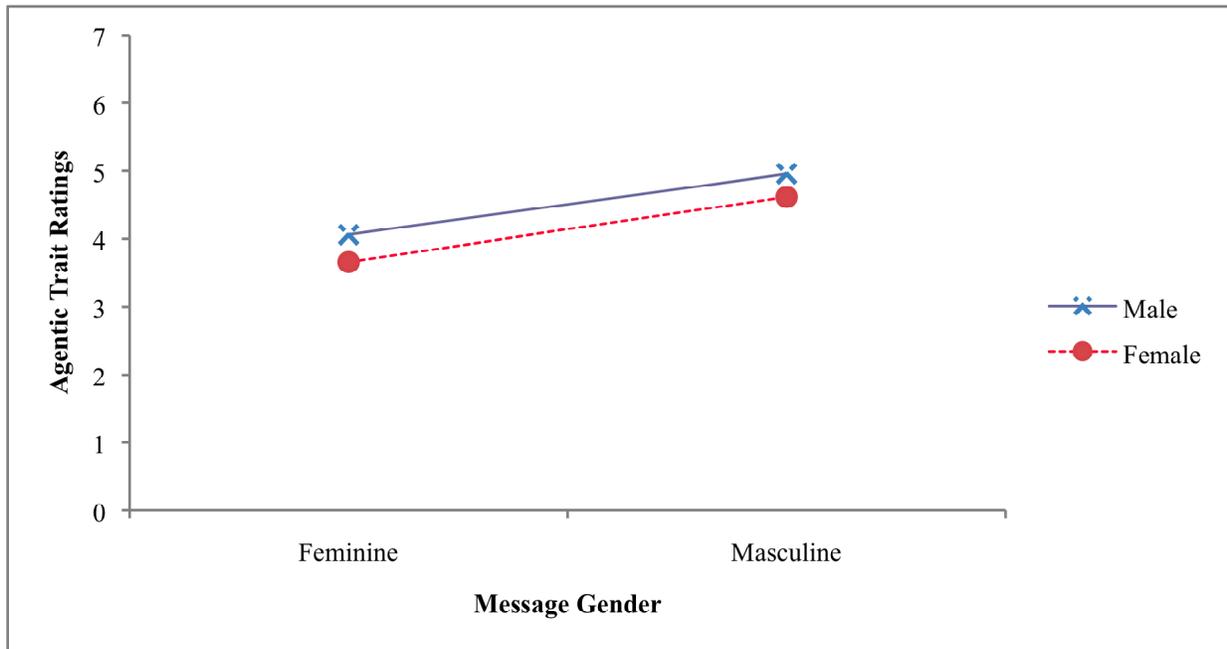


Figure 2

