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ABSTRACT

Because gender inequalities still exist, research is needed to better understand the differences in leadership perceptions and performance between genders. This research examines the role of gender, sex role orientation, and gender-linked tasks in shaping leadership efficacy, perceived performance, and leadership persistence. It was predicted that men and women will have higher levels of leadership efficacy, perceive themselves as better leaders, have a stronger desire to attain leadership roles in the future and be more likely to persist in the leadership role for the gender congruent task than the gender incongruent task. I also predicted that sex role orientation will have a greater impact on the dependent variables than participant gender. The results indicated that gender role orientation was a stronger predictor of the dependent variables than gender; however, the task condition did not play as major role as expected. In addition, women in the make-up condition exhibited lower levels of leadership efficacy than women in the tool set condition. Although the females participants did suffer from stereotype threat, these results reflect the necessity for a stronger manipulation in future research.

Chapter One:
The Impact of Gender-Linked Tasks on Female and Male Leaders

For the casual observer the experience of a man and a woman in the professional field might appear to be the same. They may work for the same company, hold the same position, and abide by the same rules. Both the man and the woman wake up and go to work each morning and complete similar tasks to further the company's success. With so many similarities between men and women as participants in the workforce, the differences they face each day are not immediately apparent. The work they produce is often viewed quite differently, and, unfortunately, the supervisor they both report to likely treats them differently. Beyond individual gender differences, the gender orientation of a man or woman may also play a significant role in how an employee is treated. As a result, this dissimilar treatment can result in very different leadership experiences.

Perhaps now more than ever before in history, women in America are considered equals to men. Women have been gaining ground for over a hundred years, from the right to vote in 1920 and the Equal Pay Act of 1963 to the movement into the workforce. Regardless of such advancements, disparities still exist in the number of women in top leadership roles in the business world. Though women represent 46% of the United State's workforce, a mere 6% hold executive positions. Disappointingly, the number of female CEO's in Fortune 500 companies consistently fluctuates in the single digits. The situation in the government is not much better. Though the U.S. Congress should be a body representative of the population, women only make up 15.1% with 81 in office (CAWP, 2005). As a result, it remains incredibly important to study the interaction between gender and leadership roles in our society.

Though women hold a fair percentage of leadership positions as middle managers, there seems to exist a barrier keeping women from reaching top leadership positions. Such data provides evidence for a glass ceiling that women seem to be facing in both the business and political worlds. Many of these elite positions, now held almost entirely by men, are perceived as particularly suited for people with masculine characteristics. This construct of elite leadership positions presents a problem for female leaders in that their performances may be perceived more negatively and they may face difficulties in male-oriented contexts. While men may face many similar issues in the workplace, it is less problematic when considering elite positions because they are associated with masculine forms of leadership. In fact, the incongruity between female gender roles and leader roles is the most extreme at the highest levels of leadership (Eagly& Karau, 2002).

Gender Roles and Gender Role Orientation

Gender roles can be defined as, "consensual beliefs about the attributes of women and men" (Eagly, 2002). As constructs of individual societies, these beliefs have an impact on our development and the beliefs we acquire for ourselves. While gender refers simply to an individual's sex, gender role orientation encompasses the traits and characteristics associated with masculinity or femininity. The qualities defined by gender roles are important in that they do not only define what is expected from different genders, but what is considered desirable for each sex. The roles we have for men and women are determined by two types of norms, descriptive and injunctive; descriptive norms describe expectations of how a group actually behaves while injunctive norms describe expectations for how a group should behave. A gender role develops when the descriptive and injunctive norms combine to develop expectations for males and females (Eagly, 2002).

As the existence of gender roles suggests, people have very distinct ideas about the traits and behaviors of women and men—one set of differences revolves around communal and agentic traits, with communal traits associated with females and agentic traits associated with males. Communal traits involve a concern for others, for example: affectionate, helpful, sympathetic, nurturing and gentle. Agentic traits, on the other hand, present a much more assertive and controlling character: aggressive, ambitious, dominant, independent, self-sufficient and *prone to act as a leader* (Eagly 2002). As a result, people may expect males to be prone to act as the leader while the traits associated with females lend better to being a follower. Such biased expectations lead to important consequences for gender roles in relationship to leadership (Eagly, 1995).

While biology determines one's sex, gender role orientation refers to the extent to which an individual associates with masculine and feminine constructs (Gurman & Long, 1991). The Bem Sex Role Inventory, a measure created to quantify gender role orientation, places participants in one of three (or four) categories: masculine, feminine, androgynous (or undifferentiated); (Orlofsky, Aslin & Ginsburh, 1977). Masculine or feminine individuals are those who attribute a majority of characteristics that are considered appropriate to one sex, and a minority of the other to themselves. For instance, feminine women would associate with a majority of the feminine traits and a minority of the masculine. Androgynous individuals attribute a large number of both masculine and feminine characteristics to themselves. Conversely, undifferentiated individuals do not attribute a large number of masculine or feminine characteristics to themselves (Lobel, 1994).

Social Role Theory and Role Congruity Theory

The Social Role Theory, developed by Eagly (2002), asserts that people are generally expected to engage in behaviors and activities that are consistent with their gender roles as defined by the culture. The theory recognizes the social pressures that cause individuals to favor gender-role consistent behavior and internalize the cultural expectations that motivate them to engage in behaviors consistent with their gender role. According to Eagly (1995), "Any such pressures favoring behavior congruent with one's gender role could be problematic for women occupying leadership or managerial roles because of the alignment of these social roles with stereotypically male qualities and therefore with the male gender role."

The incongruity between characteristics associated with leadership and those associated with female gender roles leads to prejudice towards female leaders (Eagly & Karau, 2002). According to Eagly and Karau, "when a stereotyped group member and an incongruent social role become joined in the mind of the perceiver, this inconsistency lowers the evaluation of the group member as an actual or potential occupant of the role" (2002). In other words, Eagly and Karau's role congruity theory recognizes that prejudice toward female leaders results from the incongruity between what people expect from women and what people expect from leaders. Such prejudices influence perceptions of leaders, leadership emergence, and leader performance.

Prejudice Against Women Leaders

When women confront the stereotypes and prejudices against them and actually emerge as leaders, they are often faced with biased reactions. Gender stereotypes regarding women in traditionally male positions, in this case a leadership role, trigger a bias in evaluative judgments. Research has shown that women who have achieved success in a traditionally male task are believed to have engaged in counter-normative behavior which results in negative consequences

(Heilman, Wallen, Fuchs & Tamkins, 2003). In other words, people perceive a woman's leadership successes as inappropriate for a female and treat her negatively in response. Heilman and colleagues found that successful women are less liked and more personally derogated than otherwise equivalent men in distinctly male arenas and that these effects are long lasting and influential in careers. In addition to showing a bias against women in roles reserved for men, followers perceive women who lead in a masculine way worse than male leaders. By breaking with their gender role, women leaders leave an unfavorable impression on their followers (Eagly, 1992). Beyond demonstrating followers' biased perceptions of women leaders who work against their gender roles, such research also reveals why women may be less willing to take on a leadership role or why they perform below their ability when given the opportunity.

The shifting standards model, proposed by Biernat, Vescio & Manis (1998) gives some explanation for the differing reactions to strong leadership from men and women. This model states that when asked to make social judgments, stereotypes that individuals hold about different social groups are activated and these influence the judgment standards that are called to mind. For instance, since leadership is perceived as counter-stereotypical for women, people are likely to interpret behaviors and successes differently for women than for men, especially on subjective scales. If a woman is successful in a gender congruent task, she is judged to be more competent than a man. However, for gender incongruent success she is judged more negatively with objective scales and more positively with subjective scales. This difference reflects a lower standard set for women and an over-compensation in non-zero-sum behaviors (Biernat, et. al., 1998). For instance, a manager may verbally congratulate a woman on achievements that would go unnoticed in a male co-worker; however, the supervisor would be more likely to choose the man for a more tangible reward such as a raise or promotion.

Rudman & Fairchild (2004) describe the negative reactions to counterstereotypic behavior as the backlash effect: the idea that violating stereotypes can result in social and economic punishments. This phenomenon will curb an individual's success and may cause defensive reactions, both of which will serve to promote the initial stereotypes. With logic similar to that described by the self-fulfilling prophecy, Rudman writes "penalizing atypical job applicants (e.g., by not hiring or promoting them) prevents them from becoming successful, recognizable role models and thereby curbs their ability to undermine gender stereotypes." As a result, women face a somewhat daunting contradiction: they need to perform masculine competencies to be recognized as qualified for a high-status role, yet this effort results in backlash. Unfortunately, the threat and actual repercussions of backlash serve to further cultural stereotypes.

Stereotype Threat

It is clear that gender roles and expectations play a large part in understanding how a leader is perceived, but how do these perceptions affect the leader? There is considerable research examining the impact of stereotypical expectations on the target of the stereotype, for instance, stereotype threat. Defined as a situation when negative stereotypes create the risk of being judged by or treated in terms of those stereotypes, stereotype threat results in a, "disruptive state for the stigmatized individuals" (Davies, 2005). Steele identifies several general features associated with stereotype threat. First, any member of a group with a widely known negative stereotype can be affected; stereotype threat is not necessarily tied to particular stigmatized groups. Second, the threat occurs when the negative stereotype becomes salient to one's behavior in a given situation. For example, a woman sitting in a room with men taking a math test or an African American checking the ethnicity box on a standardized test is enough to make stereotype

salient (Inzlicht & Ben-Zeev, 2000). Next, because stereotypes differ in content, scope and application, the stereotype threat experienced by varying groups differs in form and degree; naturally, every group does not feel or react the same way depending on the situation.

Steele also notes that it is not necessary for the target to believe the stereotype or consider it true to oneself in order to be adversely affected. Whether or not a woman believes she is worse at math than the rest of the men in the room, the salience of the stereotype is sufficient for stereotype threat to occur (Steele, 1997). It is important to note that stereotype threat does not result from any doubts concerning one's actual ability but instead from her identification with the domain and the resulting concern that she will be stereotyped. On the other hand, stereotype threat has little effect on participants who do not identify with the particular domain in that they usually give up or underperform regardless of experimental conditions. Finally, overcoming stereotype threat is a difficult task and needs to be repeated in each new situation. Though an African American may perform very well in an academic setting, the individual must work against the stereotype threat every time it is made salient.

Stereotype Activation and Female Leaders

The gender leader stereotype has been shown to undermine women's aspirations to become a leader and their performance once in that position. Davies, Spencer & Steele (2005) demonstrated that women express less interest in assuming the leader role over the problem-solver role when exposed to gender-stereotypic commercials. However, when they controlled for stereotype threat by creating a condition in which the participant's gender was not an issue, stereotype threat was no longer salient so there was no effect on leadership aspirations or performance (Davies, 2005). In addition, Hoyt and Blascovich (2006) found that women who were not confident in their leadership ability were particularly vulnerable to gender leader

stereotypes in that they performed worse in the leadership role and identified less with being a leader.

Previous research demonstrates that women perform better in feminine leadership roles while men are more effective in masculine leadership roles (Eagly, Karau & Makhijani,1995). Though leadership roles are more congruent with the male gender role than female in general, some roles in particular occupations or organizations can be defined in more androgynous terms. Accordingly, such roles should minimize the conflict between the leader role and female role resulting in equally effective performances between men and women. Eagly and colleagues found that leadership roles defined in masculine terms favored men, whereas roles that were defined in feminine terms favored female leaders. In addition, women were more successful than men in roles that perceivers judged required more interpersonal ability. On the other hand, men were more effective in tasks that were more male oriented in that they required the ability to direct and control people. The takeaway message is that leaders of each sex were most effective when their leadership role was perceived as congruent with their gender. It is quite clear that some leadership roles require men and women to act outside of their gender roles while others emphasize gender role congruency; yet, not every role is clear cut. This recognition raises several questions: How would men and women react to a neutral leadership position with gender congruent or incongruent elements? Would such a situation be more or less threatening than either a masculine or feminine leadership position?

Performing gender incongruent tasks, for both men and women, is likely to activate negative stereotypes. As a result, women should perceive they will underperform when leading a group in a masculine task and men will feel the same threat for a feminine task. In a study on leadership emergence, Karakowsky examined the role that gender orientation of the task might

play in relation to the gender of the leader. When a group member's gender is incongruent with the gender orientation of the task, the member shows lower levels of emergent leadership behavior in comparison to the rest of the group (Karakowsky, 1999). Such results demonstrate that the gendered nature of a task influence perceptions of expertise which leads to important consequences for leadership. As a result, I expect that men and women will be less likely to maintain their appointed leadership position when leading a group in gender incongruent tasks compared to leading gender congruent tasks.

Priming Social Behavior

First defined by Lashley (1951), priming simply refers to the preparatory function of thought. In other words, it is the, "incidental activation of knowledge structures...by the current situation context" (Bargh, Chen & Burrows, 1996). The knowledge structures refer to trait concepts and stereotypes. In the present experiment, the gender-linked tasks are developing an ad-campaign for a tool set or makeup kits; the gendered nature of the task was augmented by instructions on blue or pink sheets of paper. The color pink as associated with women or tools with men serve as knowledge structures designed to prime the participant with gender stereotypes.

Bargh, Chen & Burrows (1996) sought to demonstrate that social behavior is frequently triggered automatically from the mere presence of relevant features and that the behavior is not conscious. Their research showed that participants were more likely to interrupt an experimenter after being primed with the concept of rudeness. In addition, when an elderly stereotype was primed, participants walked down the hall slower than the participants who had not been primed. It is both interesting and critical to note that the priming simply consisted of a word scramble with elderly or rudeness stimuli. With no other mention of either rudeness or being elderly, the

word scramble alone activated social behavior consistent with the primes. Thus, the priming effects are not conscious and occur subliminally (Mussweiler &Förster, 2000).

The gender linked tasks and colored paper will prime the participants with either the male or female congruent task. A male confronted with pink paper and pictures of make-up will be primed with femininity which may in turn impact his leadership efficacy.. On the other hand, a woman handed a blue sheet of paper and pictures of tools will be primed with masculinity and will likely lead in more masculine manner. Interestingly, the gender primes will also make gender salient and in turn lead to stereotype activation for the female participants. Were the tasks completely gender neutral, a woman would still recognize the stereotypes about women in leadership roles; but, the presence of gender primes will likely make her even more aware of her gender and make the stereotypes that much more relevant.

Outcomes: Domain Identification, Leader Emergence and Persistence in the Leadership Role

Identification with the domain of leadership is an important precondition to effective leadership. Claude Steele (1997) discusses the importance of domain identification in the academic domain: "to sustain school success one must be identified with school achievement in the sense of its being a part of one's self-definition, a personal identity to which one is self-evaluatively accountable." In other words, maintaining success in leadership requires that the leader defines at least a part of his or herself through leadership, which serves as motivation. In order for this identification to form, one must recognize a possibility for success as a result of interests, skills, resources, and opportunities. Finally, if one does not learn to appreciate and identify with the domain, performance will suffer. Therein lays Steele's important question, "what in the experience of [this stereotyped group] might frustrate their identification with all or certain aspects of school achievement?" (1997).

Consistently being threatened with living down to a societal stereotype takes a great toll on individuals. One hypothesized self-protective outcome of stereotype threat is disidentification with the domain—a reconceptualization of the self and of one's values so as to remove the domain as self-identity, as a basis of self-evaluation" (Steele, 1997). Women who are consistently threatened with the female gender stereotype may disidentify with leadership, by doing so they will no longer associate success or failure in leadership with their personal identification and negative results will not be self-threatening. In disidentifying with the domain, women will also be less likely to desire leadership positions in the future. Unfortunately, such withdrawal only serves to hinder the possibility of eliminating stereotypes regarding women in leadership positions

An individual disidentified with leadership would not be likely to emerge as the leader in a group setting or demonstrate a desire for future leadership roles. Since he or she no longer associates with the domain, there would be no motivation to seize a leadership position. As with gender and domain identification, the general consensus is that gender role orientation is associated with leader emergence, while some data maintains that both gender and gender role orientation play a significant role (Fleischer, 1986; Goktepe, 1989; Nyquist & Spencer, 1998). Laboratory experiments tend to show a difficulty for women, even those who show dominant personalities, to emerge as the leader, but field experiments demonstrate no difference in the proportion of men and women who emerge as leaders. Goktepe (1989) found that gender was not a predictor for the leader who emerged, but that gender role orientation and interpersonal attractiveness were important in predicting emergent leaders rather than previous research that studied appointed leaders. On the other hand, other research found that men with communal traits emerged more frequently as the leader over women with dominant traits (Fleischer 1986;

Nyquist, 1998). The women who did emerge as leaders showed more egalitarian sex role attitudes, but several of the women who were high in dominance failed to emerge as leaders.

The conflicting results may be a reflection of the more lab-like environment design used by Nyquist (1995), yet it is still important to note that both studies found a connection between leader emergence and gender role orientation. Though I am not looking specifically at leadership emergence, I think it can be related to whether or not an individual chooses to continue as the leader or aspires for future leadership positions. The participant is selected as the leader for the initial task, but his or her decision to persist in the leadership role reflects an aspect of leadership emergence. In addition, participants' desire for future leadership roles can be viewed similarly as related to leadership emergence.

Self Efficacy

In addition to affecting a leader's performance and desire to stay in the leadership role, the gender of the leader and relevant stereotypes may influence a leader's self-efficacy for leadership and for the specific task at hand. Self efficacy presents a valid explanation for performance results after a man or woman has been chosen as the leader or elected to stay in the leadership position. Self-efficacy represents one's belief in his or her capability to "organize and execute the courses of action required to produce given attainments" (Bandura, 1997; Hoyt, 2003). Bandura found *enactive mastery* as the primary determinant of self-efficacy which depends on task performance, both perceived and real (Bandura 1997, Jex & Bliese, 1999). Individuals' self-efficacy impacts their choices, persistence during difficulties and expended effort. In addition, research has found that it can act as a, "cognitive mediator of performance" as well. Self-efficacy is particularly important in terms of problem solving strategies; whereas an

individual with high levels of self-efficacy will use problem focused strategies, an individual with lower self-efficacy will focus more on emotion focused (Jex, 1999; Hoyt, 2005).

Research has demonstrated that self-efficacy is a domain-specific construct. In addition, domain-linked measures of perceived efficacy have been shown to be more effective measures in predicting academic performance, anxiety, pain tolerance, diabetic metabolic control than other scales. Thus, leadership effectiveness should be related to self-efficacy for leadership (Hoyt, 2005).

For the purpose here, leadership efficacy can be defined simply as one's belief in his or her ability to succeed as a leader (Hoyt, Murphy, Halverson & Watson 2003). Hoyt and colleagues found that leadership efficacy predicts anxiety which in turn predicts a leader's efficacy on a particular task. They also determined that leaders with high leadership efficacy experience less anxiety than low efficacy leaders, most likely because of the problem-focused problem solving strategy rather than a reliance on emotions. In addition to anxiety, people with different levels of self-efficacy exhibit different preferences for types of jobs and working environments. Participants with high levels of self-efficacy prefer careers in which they can function independently and show personal judgment (Jex, 1999).

While leadership and task self-efficacy of the leader are strong determinants of group and organizational outcomes, the gender of the task may have the potential to impact the leader's efficacy. Depending on initial levels of efficacy, performing a counter-stereotypical task may have a negative impact on both leadership efficacy and task efficacy. Hoyt and Blascovich (2006) demonstrated that low efficacy leaders are particularly prone to adverse effects from stereotype activation. I predict that both men and women placed in leadership roles with

congruent tasks will show higher levels of leadership efficacy than those leading gender incongruent tasks.

Study Overview

My study will look at participant gender, gender role orientation and the gender orientation of the task as the independent variables in relationship to several dependent variables: the leader's self efficacy for leadership, the leader's perception of his or her performance, the leader's desire to attain leadership roles in the future, and the leader's persistence in the leadership role.

To test my hypotheses, I will use a small group experimental design. The groups will consist of one male or female participant and two confederates, one male and one female. Each participant, "the randomly chosen leader," will lead the group in developing an ad campaign for a tool set (masculine task) or make-up kit (feminine task). Upon completion, the participant will be led to believe there is another similar task and that he or she can give up the leadership role to another member of the group or retain it for the next task as well.

Hypotheses

Leadership Efficacy

I predict that both gender and gender role orientation will interact with task type and efficacy such that participants leading in a gender congruent task will have higher levels of efficacy than those leading gender incongruent tasks,

Perceived performance

I predict that both gender and gender role orientation will interact with task type such that participants leading in a gender congruent task will have higher levels of perceived performance than those leading gender incongruent tasks,

Future Leadership

I predict that both gender and gender role orientation will interact with task type such that participants leading in a gender congruent task will have a stronger desire to attain leadership positions in the future than those leading gender incongruent tasks,

Leadership Persistence

I predict that both gender and gender role orientation will interact with task type such that participants leading in a gender congruent task will be more likely to continue in the leadership role than those leading gender incongruent tasks,

Gender verse Gender Role Orientation

While I predict both gender and gender role orientation will impact efficacy, perceived performance, and leadership persistence, I predict that gender role orientation will be a stronger predictor of the dependent variables than gender.

CHAPTER TWO: METHODS

Participants

Sixty undergraduate students at the University of Richmond participated in the study, (thirty men and thirty women). The participants were between the ages of 18 and 22. I found participants by posting announcements in Spiderbytes, the daily email from campus administration. and through asking students in my classes. I also offered the incentive of a ten dollar reward to each participant.

Design

The experiment was a 2 x 2 x 2 between-subjects; quasi-experiment. The independent variables were the gender of the participants (male/female), the gender role orientation of participants (masculine/feminine) and the gender-orientation of the task (masculine/feminine). The dependent variables were the participants' leadership efficacy, the participants' perception of their leadership performance, the participants' willingness to accept future leadership roles, and their persistence in maintaining the leadership role within the small group.

Tasks

The participants were asked to complete one of two tasks based on random assignment. These tasks were gender-oriented such that one required the participant to design an ad campaign for a tool set (masculine) and the other to design an ad campaign for a make-up kit (feminine). Post-experimental data analysis indicated that participants did perceive the tool set task as masculine and the make-up kit task as feminine (see manipulation check in results). As the experimenter, I explained the task to each of the participants and gave them a sheet with clear

instructions (see Appendix F). The participants were told that the fictional advertising company they work for was hired by a hardware or make-up company to design a campaign for the latest line of tools or make-up kit. During the five minute meeting with the research confederates, they were asked to develop answers for the following questions: What makes this product unique? Who will you target the product to? Where will you sell it? How will you advertise it? What will the slogan be? To augment the implicit activation of stereotypes, the sheet for the male-oriented task was blue and the sheet for the female oriented task was pink.

Measures

Participants were asked to respond to all questionnaires (except the Bem Sex Role Inventory) on a Likert-type scale ranging from -3 (strongly disagree) to

3 (strongly agree)

Bem Sex Role Inventory

In order to assess participant's gender role identity, they completed the Bem Sex Role Inventory (Bem, 1981; see Appendix C). The BSRI is a widely used instrument for measuring gender role perceptions. The measure includes 60 characteristics to which the participants respond to based on a Likert-type scale ranging from -3 (always or almost always untrue) to 3 (always or almost always true). Traits such as warm, tender and sympathetic provide examples of feminine responses; whereas words like athletic, assertive and self-sufficient are associated with the masculine gender role orientation. As it is rather dated, evidence has suggested that the masculine and feminine gender roles may be weakening. For instance, Wilcox & Francis (1997) demonstrated in a test with young British females that several of the constructs no longer satisfy the criteria that would warrant their inclusion. On the other hand, Holt & Ellis (1998) validated the constructs in a replication study and Oswald (1999) found that the categories are still valid

for men and women of varying ages. Despite contradicting research, the construct is still frequently used as a measure for sex role orientation and as a means for determining the validity of developing constructs (Johnson, Jones & Brems, 1996). Participants were asked to respond to each question

Leadership Efficacy

The Self-Efficacy for Leadership measure was developed by Murphy (1992) to measure individuals' self-efficacy in terms of their leadership abilities and has been well validated in predicting leadership outcomes. In particular, high levels of leadership efficacy have been associated with less anxiety in leadership situations in comparison to low-efficacy leaders (Hoyt, Murphy, Halverson & Watson, 2003). The measure consists of the following eight statements: I feel that I know a lot more than most leaders about what it takes to be a good leader; I know what it takes to make a work group accomplish its tasks; In general, I am very good at leading a group of my peers; I am confident of my ability to influence a work group that I lead; I know what it takes to keep a work group running smoothly; I know how to encourage good work group performance; I feel comfortable allowing most group members to contribute to the task when I am leading a work group; and Overall, I believe that I can lead a work group successfully. It was administered to participants twice in order to measure the participants' initial leadership efficacy and the participants' leadership efficacy immediately after they learned what task they would be leading the group in and were given five minutes to prepare for the group meeting.

Perceived Performance Measure

The perceived performance measure utilized in this research is a modified version of a scale developed by Hoyt & Blascovich (2006). Participants responded to the following five statements in order to assess their perception of their performance in completing the task: I

performed well on the leadership task I just completed; I feel that I just did a good job leading the group; I am content with how well I did on the leadership task; I am confident that I performed well; and I am confident in my leadership performance. The questions were designed to measure how positively the participant perceived his or her own leadership performance on the task.

Future Leadership

The following three statements were developed to assess the participants desire to attain leadership roles in the future after they had completed the task: I intend to pursue a leadership-oriented career; I will actively pursue leadership positions in the future; and It is important to me that I occupy leadership roles in my future endeavors.

Leadership Persistence

I used two methods to gauge participant's persistence in the leadership role. First, they responded to the following two statements: I would like to retain my position as leader of the group and I would like to give my leadership position to another member of the group. The participants were also asked to respond to the following open-ended statement: If I could give the leadership position to another member of the group, I would select _____. For future reference, participant's should respond to a more definitive statement, such as: I want to remain in the leadership position or I am choosing to give the leadership position to _____.

Procedure

Upon arrival, the participant waited with the two research confederates pretending to be other participants (one male, one female) in the seating area outside of the Social Interaction Research Center in the Jepson School of Leadership Studies at the University of Richmond. At the appropriate time, I walked into the waiting area and asked for the names of the participant

and the two research confederates. I then asked the participant to follow me and mentioned that I would be back shortly for the research confederates. After taking the participant to the meeting room, I explained that he or she had been randomly selected as the leader and that the other two participants waiting outside would be his or her followers. As this point, the participant filled out a sheet assessing demographic data, a consent form, the Bem Sex Role Inventory (see Appendix C) and a measure for determining initial levels of leadership efficacy (see Appendix D).

When the participant completed the questionnaires, I explained the task to the participant and gave him or her the appropriate task materials. The binder for the feminine condition contained a pink instruction sheet and several different sheets with pictures of and definitions for: blush, mascara, lipstick, eyeliner, and eye shadow (see Appendix G). On the other hand, the male oriented condition contained a blue instruction sheet and several different sheets with pictures of and definitions for: a saw, a hammer, a screwdriver, a level, and a tape measurer (see Appendix H). The participant was then given five minutes in order to prepare for the meeting with the research confederates. After five minutes passed, I asked the participant to fill out a questionnaire measuring the pre-task leadership efficacy (see Appendix E). Upon completion, I brought the two research confederates in the room for the task, turned on the audio recorder, and told the group that I would be back in seven minutes.

After the seven minute meeting, I re-entered the room and asked the research confederates to follow me into another room. I also advised the participants that they would have three minutes alone in order to prepare for the two-minute ad-campaign pitch they were going to audio-record. After the participants delivered their two minute ad-campaign pitch, I came back and told the participant that there was one more similar task that the group would be completing. I explained that he or she could retain the leadership position or relinquish it to another member

of the group and administered a few questionnaires measuring the participant's perception of his or her performance; the participant's willingness and desire to seek leadership roles in the future, and the participant's persistence in the leadership role (see Appendix I). Finally, when the participant completed the final questionnaires I returned to debrief and pay him or her.

CHAPTER THREE: RESULTS

Descriptive Statistics, Reliabilities, & Correlation Matrix

To verify that all the measures I used were reliable I ran Cronbach's α's on all measures. The Cronbach's α's.are on the diagonal in Table 1, as well as the means, standard deviations and intercorrelations among all measures.

Variable	M	SD	1	2	3	4	5
1. Initial Leadership Efficacy	1.21	.65	0.88				
2. Pre-Task Leadership Efficacy	1.31	.64	.90**	0.89			
3. Perceived Performance	.92	.77	.51**	.56**	0.94		
4. Future Leadership	1.31	1.23	.49**	.57**	.60**	0.91	
5. Leadership Persistence	.27	.48	.37**	.46**	0.26	.47**	0.88

** Correlation is significant at the 0.01 level

Table 1: Cronbach's α's, means, standard deviations and intercorrelations among all measures

Manipulation Check

To determine whether participants perceived the gendered nature of the tasks, as either masculine or feminine, I conducted a post-experimental manipulation check. I ran a univariate two-way analysis of variance (ANOVA) with the gender of the task (masculine/feminine), gender of the participant (male/female) as the independent variables and with responses to following statement as the dependent variable: "The task may have been easier for people of my gender." The results indicated a significant interaction between gender and task ($F (1, 31) =$ 24.33, $p < .001$). Men saw the masculine task as easier for people of their gender ($M = .40$; $SD =$ 1.56) and the feminine task as more difficult for people of their gender ($M = -1.78$; $SD = 1.09$). Similarly, women saw the masculine task as more difficult for someone of their gender ($M = -$ .57; $SD = .79$) and the feminine task as easier for their gender ($M = 1.33$; $SD = 1.12$). Figure 1

presents the interaction between participant gender and task on their response to the relevant

measure:

Manipulation Check

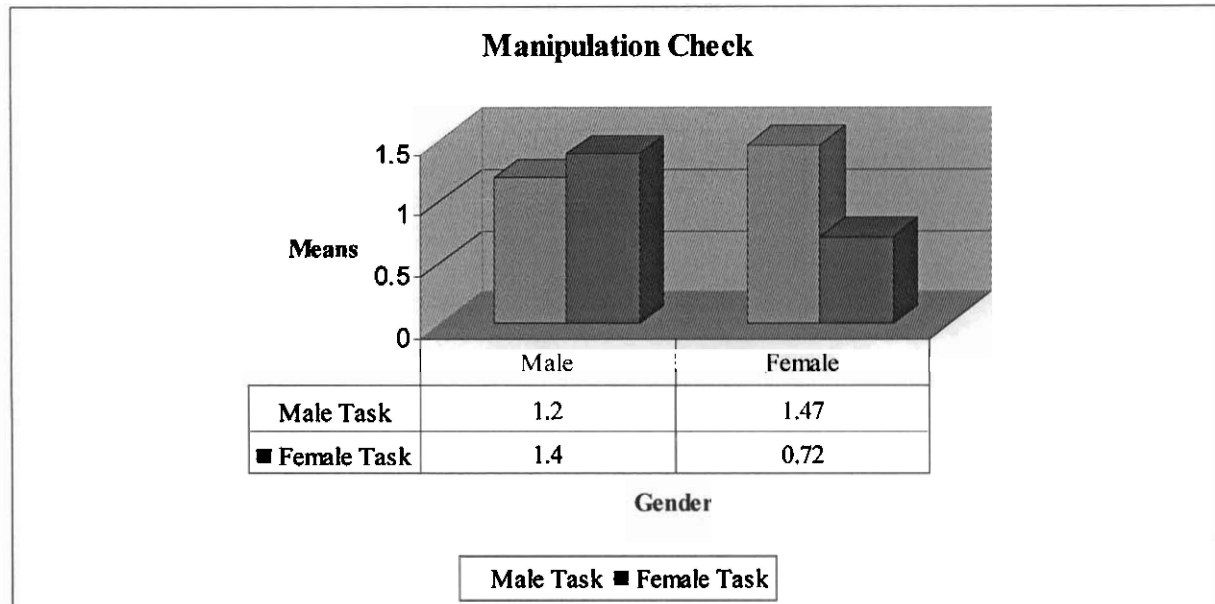|	Male	Female
Male Task	1.2	1.47
■ Female Task	1.4	0.72

Gender

Male Task ■ Female Task

Figure 1: Response to manipulation check item (*The task may have been easier for people of my gender*) as a function of participant gender and condition

Hypothesis Testing: Gender

One purpose of this research was to understand the role that gender plays in a leader's

leadership efficacy, perceived performance, desire for attaining future leadership positions and

persistence in the leadership role when the task is gendered as either masculine or feminine.

Initial Efficacy

Before receiving any information on the sort of task they would be completing, I asked

the participants to fill out a few initial surveys. The first eight questions on the pre-measure were

designed to determine a participant's initial level of leadership efficacy. In order to make sure

initial levels of leadership efficacy were not differ across conditions, I conducted a multivariate

two-way ANOVA on initial levels of leadership efficacy with participant gender and the task

condition. The results indicated no main effect between males (M = 1.29; SD = .46) and females

(M = 1.11; SD = .88). However, the test for between-subject effects revealed an interaction such

that the females randomly assigned to the feminine task had significantly lower levels of

leadership efficacy than females assigned to the masculine task (F (1, 43) = 5.97, p = .02). Figure

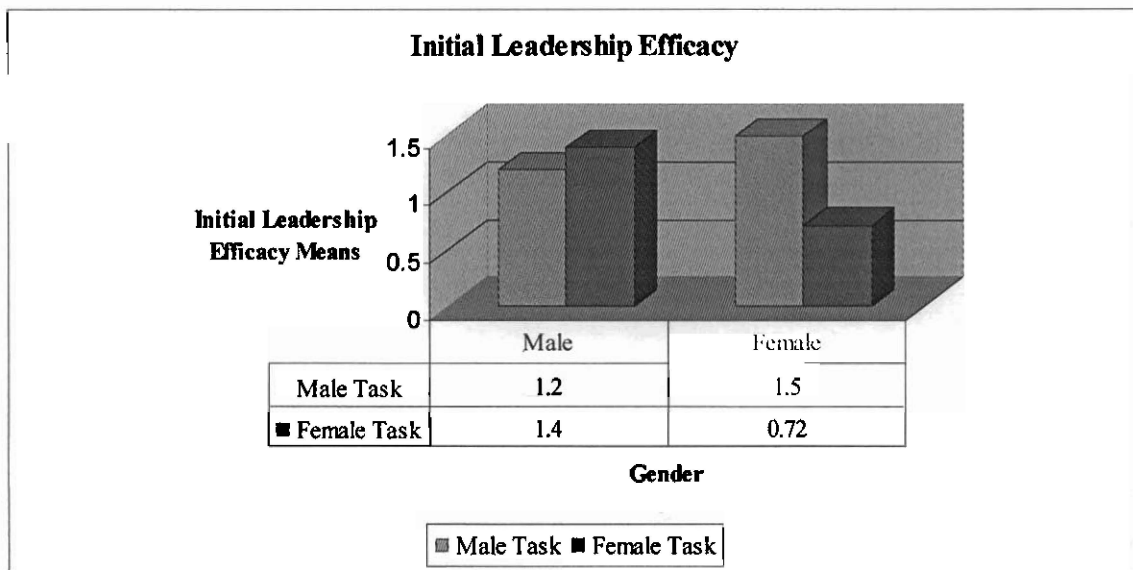2 presents the initial differences in leadership efficacy between men and women across task

conditions:

Initial Leadership Efficacy

	Male	Female
Male Task	1.2	1.5
■ Female Task	1.4	0.72

Gender

☐ Male Task ■ Female Task

Figure 2: Response to self-efficacy for leadership measure (taken before participants were aware of the gendered nature of the task the would be completing) as a function of participant gender and task condition

To control for the unexpected yet significant differences in initial leadership efficacy, I

controlled for the efficacy as a covariate in all subsequent analyses.

Hypotheses

I hypothesized that gender would interact with task type such that participants leading in

a gender congruent task would have higher levels of leadership efficacy, better perceptions of

their performance, a greater desire to attain leadership roles in the future, and more persistence in

the leadership role. In order to test these hypotheses, I ran a two-way multivariate ANOVA with

gender and condition as the independent variables and pre-task leadership efficacy, perceived

performance, future leadership and leadership persistence as the dependent variables.

Pre-Task Leadership Efficacy

After participants were made aware of the nature of the task they had been chosen to lead

and were given five minutes to prepare for the task, I again tested their levels of leadership

efficacy. Questions 7 -14 on the mid-measure questionnaire (see Appendix E) were designed to

test the participant's leadership efficacy before going into the task. The results from the

ANOVA indicated a slight main effect for gender, where men exhibited a marginally significant

higher level of efficacy (M = 1.41; SD = .45) than women (M = 1.20; SD = .76); (F (1, 59) = 3.3,

p = .07). There was also a significant interaction between the task condition and participant

gender (F (1 , 59) = 4.50, p = .05), such that women had significantly lower levels of efficacy in

the feminine task than other conditions. On the other hand, men showed the opposite pattern in

that they had lower levels of efficacy in the female task than the male task. There was, however,

no main effect for condition (F (1, 59) = .19, p = .67). Figure 3 presents the interaction between

gender and task condition for pre-task leadership efficacy:

Pre-Task Leadership Efficacy Interaction

	Male	Female
■ Male Task	1.27	1.53
■ Female Task	1.55	0.911

Pre-Task Leadership Efficacy Means
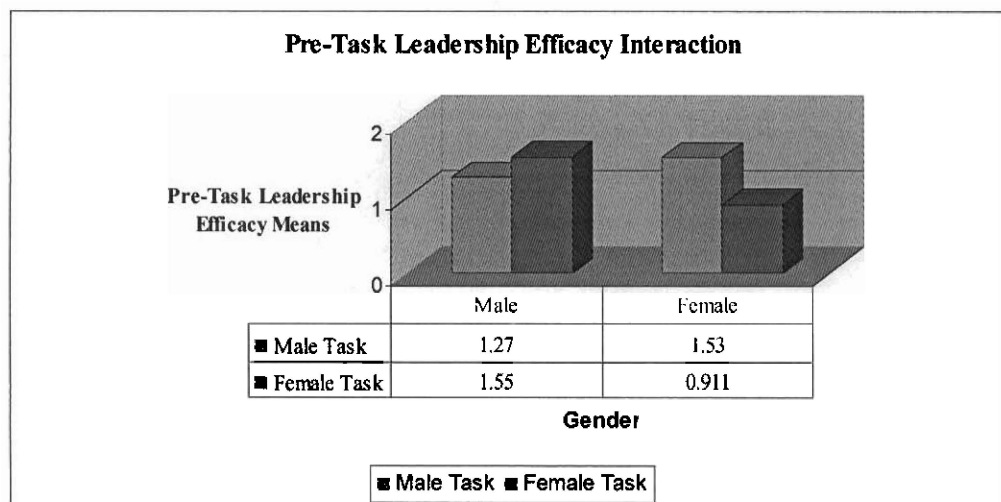
Gender

■ Male Task ■ Female Task

Figure 3: Responses to self-efficacy for leadership (taken after participants were made aware of the gendered nature of the task they would be completing) measure as a function of participant gender and task condition

Perceived Performance

After participants completed the task, I administrated a questionnaire to determine their perception of their performance as the leader. Questions 1, 2, 3, 5 and 6 on the post-measure (see Appendix I) were designed to measure participant's perceived performance. Results from the multivariate ANOVA indicate that there were no main effects for gender ($F (1, 59) = .61$, $p > .10$) or task condition ($F (1, 59) = .07$, $p > .10$). In addition, there was no interaction between gender and task condition ($F (1, 59) = .377$, $p > .10$).

Future Leadership

After I told participants that they would be completing another task, in which they could retain or relinquish the leadership role, I administered a questionnaire to determine their willingness to lead in the future. Questions 21, 22 and 23 on the post-measure (see Appendix I) were designed to determine this desire. The results from the multivariate ANOVA indicate that there were no main effects for gender ($F (1, 59) = 1.3$, $p > .10$) or task condition ($F (1, 59) = .02$, $p > .10$). In addition, there was no interaction between gender and task condition ($F (1, 59) = 1.1$, $p > .10$).

Leadership Persistence

The post-measure (see Appendix I) also gave participants an opportunity to either remain the leader or give the position to a member of the group for the next task. Although the multivariate ANOVA indicated that there was no main effect for gender ($F (1, 59) = .41$, $p > .10$) and no interaction between gender and condition ($F (1, 59) = .85$, $p > .10$); the results did indicate a marginally significant main effect for the task condition ($F (1, 59) = 2.68$, $p = .11$) such that men and women were more likely to persist in the female task than the male task. Figure 4 presents the main effect for leadership persistence in terms of task condition:
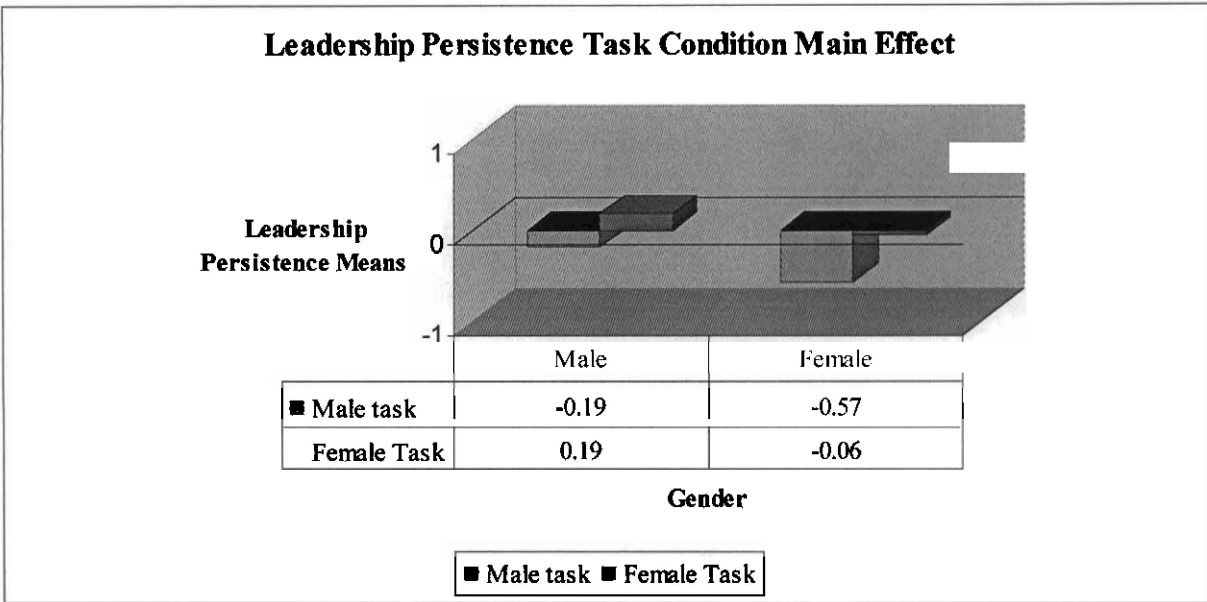
Leadership Persistence Task Condition Main Effect

	Male	Female
■ Male task	-0.19	-0.57
Female Task	0.19	-0.06

Gender

■ Male task ■ Female Task

Figure 4: Responses to leadership persistence measure as a function of task condition and gender

Leader Choice

Beyond determining whether or not the participant wanted to continue as the leader, I asked them to choose one of the confederates as the leader if they decided to relinquish the role. I ran a chi-square to understand the relationship between a participant's gender, the task condition and the decision to relinquish the leadership role to either the male or female confederate. Though there was no significant relationship between participant gender and leader choice (χ^2 = .56, p > .10), the results indicated a significant relationship between the task condition and leader choice (χ^2 = 6.01, p = .01). Thus, participants were more likely to choose the female confederate in the feminine condition and the male confederate in the masculine condition. Figure 5 presents
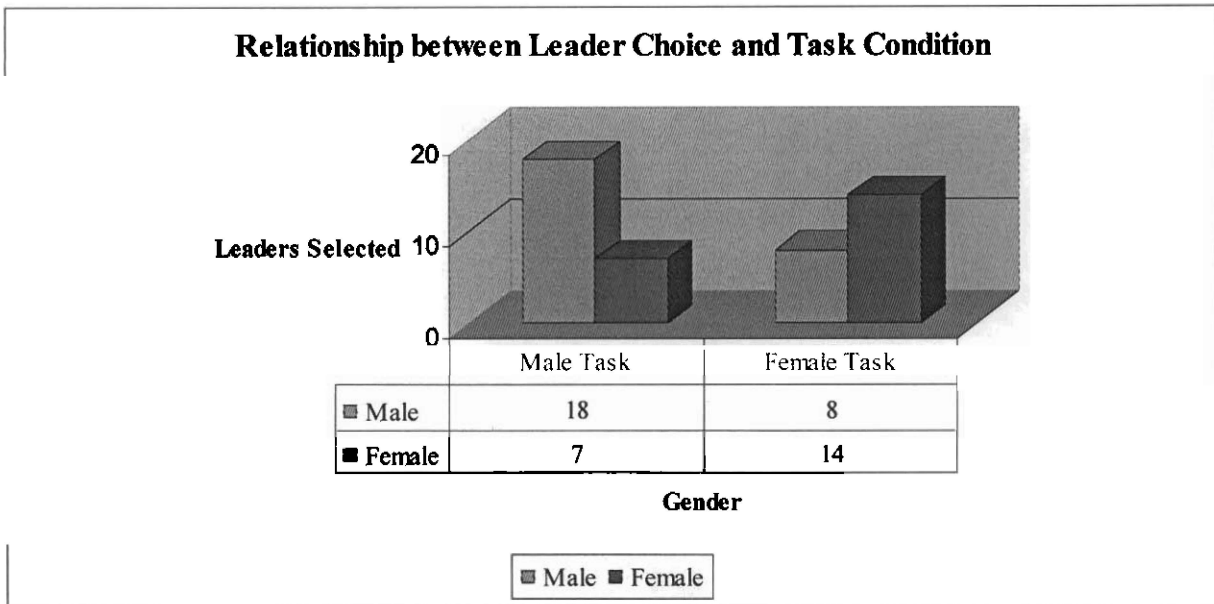
this significant relationship:

Relationship between Leader Choice and Task Condition

	Male Task	Female Task
▣ Male	18	8
■ Female	7	14

Gender

▣ Male ■ Female

Figure 5: After giving up leadership position, participant's choice for the next leader as a function of gender

Hypothesis Testing: Gender Role Orientation

Gender Role Orientation

A second goal in this research was to understand the influence that gender role orientation may have on a leader's leadership efficacy, perceived performance, desire for attaining future leadership positions, and persistence in the leadership role when the task is either masculine or feminine. To determined participants' sex role orientations, I used the median-split approach on the feminine (1.42) and masculine (1.10) subscales as adopted by Bem (1977) in order to remedy the fact that a simple t-score did not differentiate between androgynous and undifferentiated individuals (Briere, Ward & Hartsborough, 1983). Participants who scored above the median on the feminine subscale and below the median on the masculine subscale were considered feminine. Similarly, those who scored above the median on the masculine subscale and below the median on the feminine subscale were labeled masculine. Finally, those

who scored above the median for both the masculine and feminine subscales were considered androgynous and those below the median on both subscales were undifferentiated. For the purpose of this research, I only selected the masculine and feminine participants for these analyses.

Initial Leadership Efficacy

In order to test whether initial levels of leadership efficacy were equal across conditions I conducted a multivariate two-way ANOVA on initial levels of leadership efficacy with gender role orientation and task condition as the independent variables. The results indicate that there was no main effect of condition and no significant interaction between gender role orientation and task condition (F $(1, 33)$ = .025, p > .10). Thus, for these analyses I did not need to control for initial levels of leadership efficacy.

Hypotheses

I hypothesized that gender role orientation would interact with task type such that participants leading in a gender task congruent with their gender role orientation would have higher levels of leadership efficacy, better perceptions of their performance, a greater desire to attain leadership roles in the future and more persistence in the leadership role. In order to test these hypotheses, I ran a two-way multivariate ANOVA with gender role orientation and task condition as the independent variables and pre-task leadership efficacy, perceived performance, future leadership and leadership persistence as the dependent variables.

Pre-Task Leadership Efficacy

Results from the multivariate ANOVA indicated no significant main effect for condition (F $(1, 33)$ = .10 p > .01) and no significant interaction between gender role orientation and task condition (M − 1.33; SD = .54; F $(1, 33)$ = .001 p > .10). However, there was a significant main

effect for gender role orientation such that masculine participants had higher levels of leadership

efficacy before the task (M = 1.58; SD = .32) than female participants (M = 1.10, SD = .63; F (1,

33) = 7.21, p < .02). Figure 6 presents this difference:

Pre-Task Leadership Efficacy

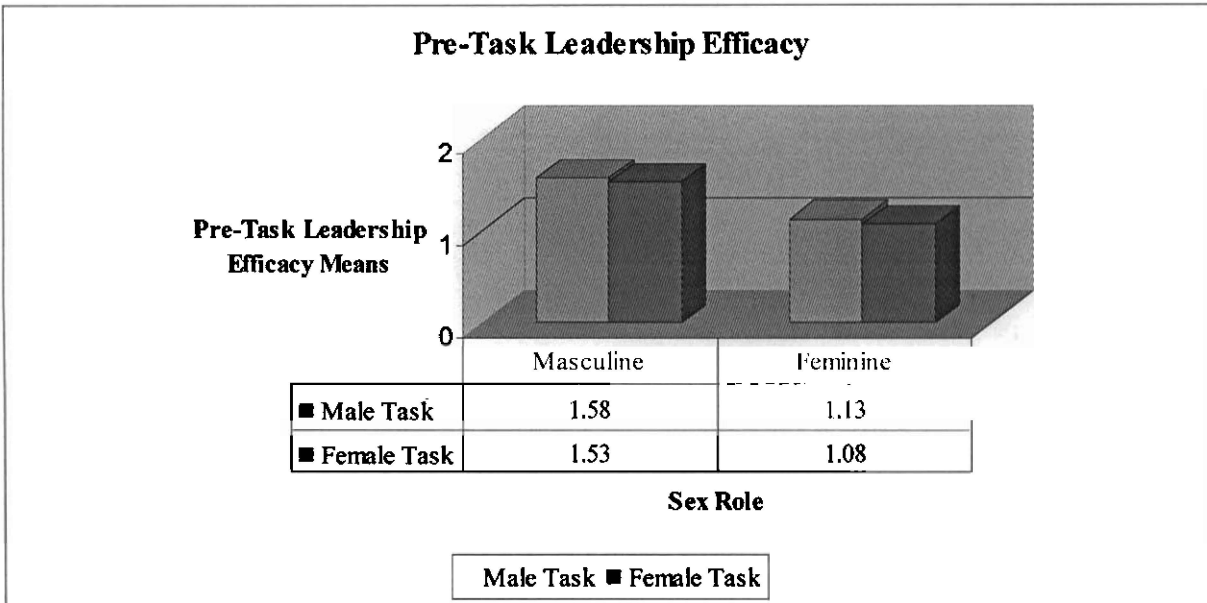|	Masculine	Feminine
■ Male Task	1.58	1.13
■ Female Task	1.53	1.08

Sex Role

Male Task ■ Female Task

Figure 6: Response to self-efficacy for leadership measure as a function of participant gender role orientation and task condition

Perceived Performance

Results from the multivariate ANOVA reveal no significant main effect for condition (F

(1, 33) = .80, p > .10) and no significant interaction between gender role orientation and task

condition (M = 1.22; SD = .98; F (1, 33) = .01, p > .10) on perceived performance. On the other

hand, there was a significant main effect for gender role orientation such that masculine

participants had a better perception of their performance on the task (M = 1.62; SD = .42) than

female participants (M = .79; SD = 1.22; F (1, 33) = 7.42, p = .01). Figure 7 shows the higher

perceived performance among masculine participants compared with feminine participants,
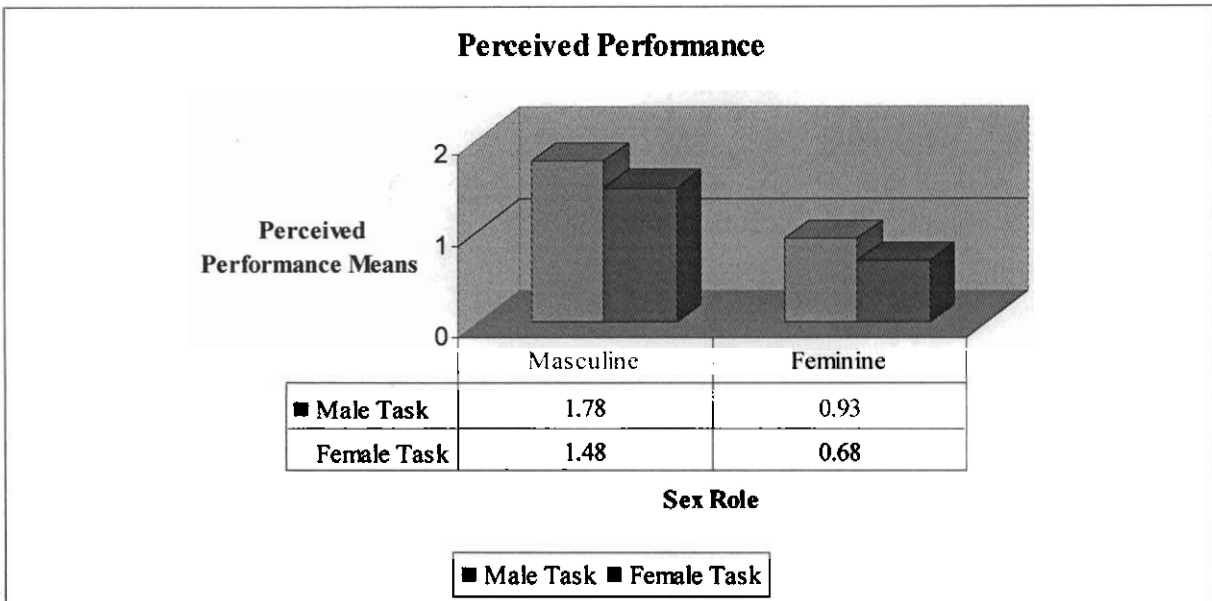
regardless of condition:

Perceived Performance

	Masculine	Feminine
■ Male Task	1.78	0.93
Female Task	1.48	0.68

Sex Role

■ Male Task ■ Female Task

Figure 7: Responses to the perceived performance measure as a function of participant gender role orientations and task condition

Future Leadership

Results from the multivariate ANOVA indicate no significant main effect for task condition (F $(1, 33)$ = .14, p > .10) or interaction between task condition and gender role orientation (M = 1.29; SD = 1.20; F $(1, 33)$ = .66, p > .10) on intent to lead in the future. Yet, there was a significant main effect for participant gender role orientation such that masculine participants were more likely to desire a leadership role in the future (M = 1.79; SD = .90) than feminine participants (M = .76; SD = 1.23; F $(1, 33)$ = 7.4, p = .01). Figure 8 demonstrates the increased aspiration for future leadership roles among masculine participants compared to their feminine participants:
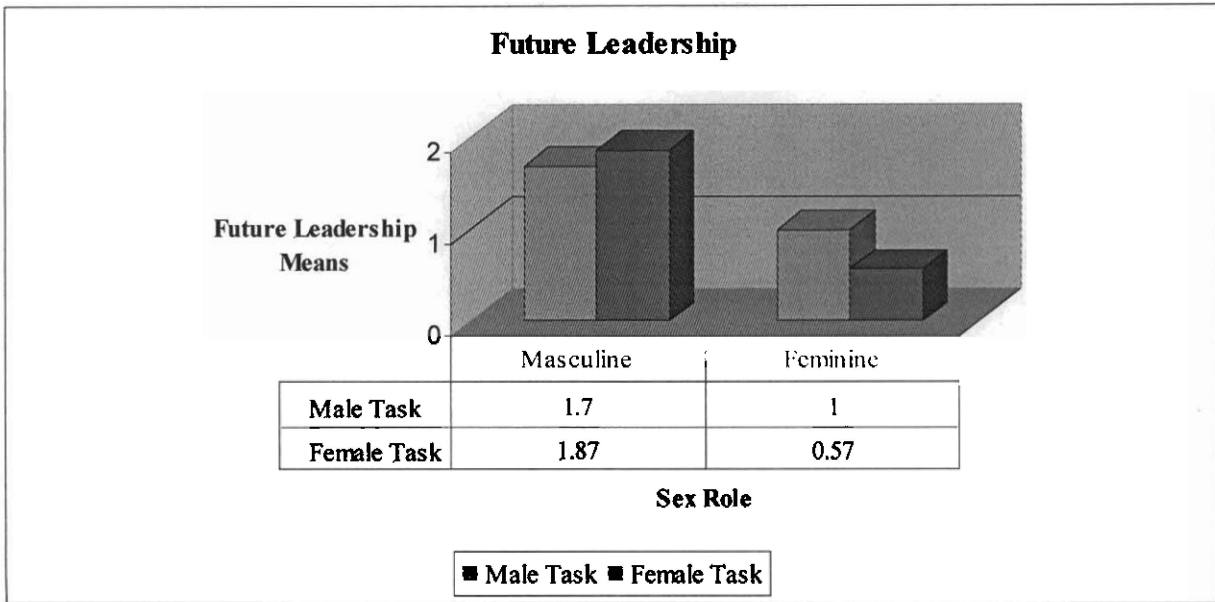
Future Leadership

	Masculine	Feminine
Male Task	1.7	1
Female Task	1.87	0.57

Sex Role

■ Male Task ■ Female Task

Figure 8: Responses to future leadership measures as functions of gender role orientation and task condition

Leadership Persistence

Finally, the multivariate ANOVA revealed no main effect for task condition (F (1, 33) = 1.03, p > .1) or interactions between participant gender role orientation and task condition (M = -08; SD = 1.66; F (1, 33) = .16 p > .1) on leadership persistence. However, there was a significant main effect for gender role orientation such that masculine participants were more likely to retain the leadership role (M = .50; SD = 1.52) than feminine participants (M = -.69; SD = 1.62; F (1, 33) = 5.19, p = .03). Figure 10 shows the feminine participants' unwillingness to continue as leader of the small group in comparison to their masculine counterparts:

Leadership Persistence

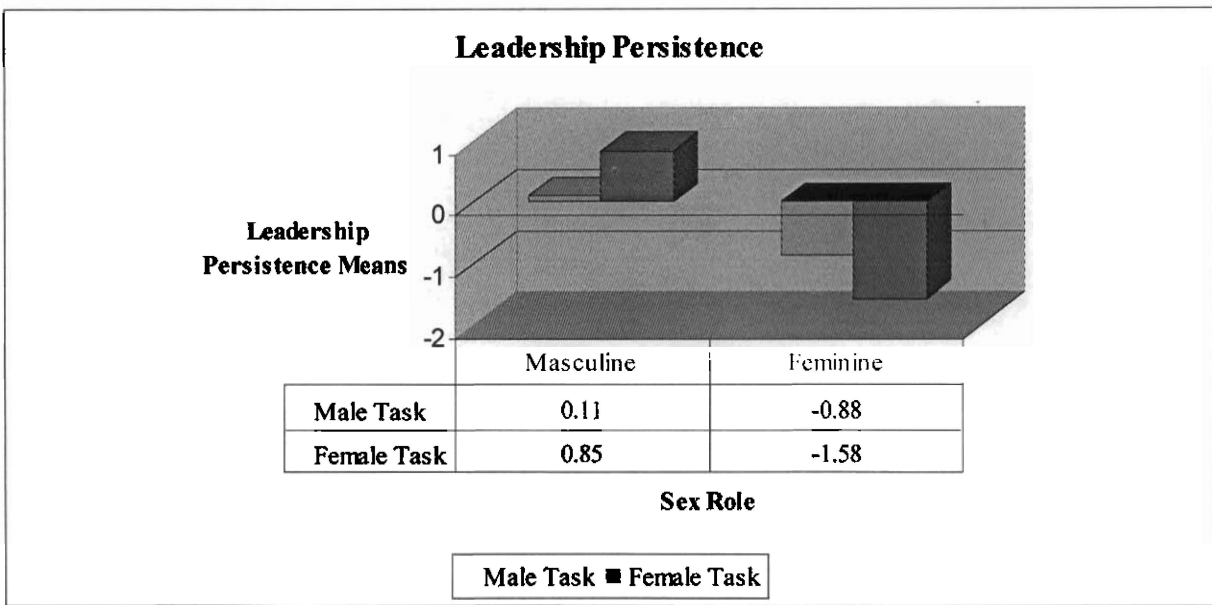|	Masculine	Feminine
Male Task	0.11	-0.88
Female Task	0.85	-1.58

Sex Role

Male Task ■ Female Task

Figure 10: Decision to persist in leadership role as a function of gender role orientation and task condition

CHAPTER FOUR: DISCUSSION

Though an individual's gender may be the first thing we notice in another, the characteristics and traits associated with masculinity and femininity also play a major role in who we are and how we act. An individual may be born male or female, but the communal and agentic traits that make someone up are also incredibly influential in day to day actions. In terms of leadership, people are expected to demonstrate masculine qualities. Unfortunately, the incongruity between leadership positions and femininity often times leads to prejudice toward female leaders. In turn, feminine individuals may cease to identify with the leadership domain, furthering stereotypes. The purpose of this study was to understand the role gender and gender role orientation play on leadership. The results demonstrate the importance of gender role orientation in determining an individual's level of leadership efficacy and confidence in a leadership role.

Gender: Theoretical Implications

Contrary to the hypothesized expectations, the participant's gender did not play a significant role in determining his or her leadership performance perception or future leadership aspirations. There was however a significant relationship between the task condition and leader choice, which demonstrates that the participants did consider the tasks gendered. Though it did not play a role in their leadership perception or aspirations, the fact that they chose women to lead the feminine task and men to lead the masculine task shows that the participants clearly recognized the make-up kit condition as feminine and the tool set condition as masculine. The results of the manipulation check serve to support the idea of a gendered task as well.

Interestingly, women had significantly lower levels of efficacy in the feminine task than other conditions. While this result contradicts my initial hypotheses that congruency between gender and the task condition would result in higher levels of efficacy, the feminine nature of the task offers an explanation. Working with make-up made the female participant's gender more salient than the tool kit, in turn activating the stereotypes associated with female leaders. Rather than creating a comfortable atmosphere, working with make-up made the women aware of the expectations for women in leadership positions. These results are consistent with Eagly's (2002) Social Role Theory in that women in the make-up condition submitted to the social pressures associated with acting in gender-role consistent behavior.

These results are also consistent with the ideas surrounding stereotype threat. The presence of a leadership task for a female satisfies Davies, Spencer and Steele's (2005) first requirement for stereotype threat, that any member of a group with a widely known negative stereotype can be affected. Second, the negative stereotype became salient when the female participants were assigned the leadership role. For women in the make-up condition, gender was even more salient because of the feminine nature of the task and the pink instruction sheet. The results suggest that the leadership role alone was not enough to trigger stereotype threat, but the task of designing an ad-campaign for make-up was.

Eagly, Karau & Makhijani (1995) found that women perform better in feminine leadership roles and men are more effective in masculine leadership roles. The difference here is that the leadership role for designing an ad-campaign was not made more feminine or masculine by the task condition. Rather than assisting women in the leadership position, the make-up condition served to activate stereotypes. Though the task was viewed as more appropriate for a

female leader when participants chose to relinquish their leadership position, female leaders did not internalized the role in feminine terms.

Interestingly, both male and female participants were more persistent in the leadership role for the feminine task as compared to the masculine task. High efficacy leaders may have been demonstrating reactance to stereotypes associated with make-up and females (Hoyt & Blascovich, 2006). Rather than succumbing to the prejudices associated with femininity and a woman's product, the participants fought against the stereotypes and were determined to continue in the leadership role to prove themselves. Though this possible explanation contradicts the fact that women in the make-up kit condition showed significantly lower levels of efficacy, perhaps there were enough remaining high efficacy leaders to exhibit a marginally significant level of persistence.

The unexpected variance in initial levels of leadership efficacy, in particular the higher levels for women in the masculine task, may have contributed to the unexpected results. In controlling for the differences in initial levels of leadership efficacy, some effects were lost in the analyses. Nevertheless, the fact that gender played practically no significant role emphasizes the importance of an individual's gender role orientation.

Gender Role Orientation: Theoretical Implications

As hypothesized, gender role orientation did significantly impact participant's leadership efficacy, leadership performance perception, future leadership aspirations and leadership persistence. In addition, the hypothesis that gender role orientation would be a stronger predictor of the dependent variables than simply gender was supported. The results reveal that masculine participants, in comparison to their feminine counterparts, exhibited significantly higher levels for all conditions, regardless of the task. Though they were working with a feminine task, the

masculine leaders were able to work beyond the disadvantage and show higher levels of leadership efficacy, performance perception, leadership aspirations and leadership persistence. On the other hand, feminine participants did not overcome the challenges associated with feminine leaders, even when working with feminine task.

These results support Gopteke's (1989) field research in that gender was not a predictor for leadership emergence, yet gender role orientation was. Masculine participant's success in overcoming incongruities between their gender role orientation and the task condition and feminine participant's failure to work with both the congruent and incongruent tasks between their gender role orientation and the task condition demonstrates the overarching importance of gender role orientation in determining a leader's efficacy, perceived performance, aspirations, and persistence.

The fact that gender role orientation congruency between the participant and the task did not matter can be explained by the masculine nature of a leadership role and the limitations of the manipulation. While the participants did find the feminine task more appropriate for the female research confederate and the masculine task as more appropriate for the male research confederate, the task itself failed to increase leadership efficacy, perceived performance, leadership aspirations and leadership persistence for gender role orientation congruent participants. Eagly, Karau and Makhijani found that women perform better in feminine leadership roles; therefore, participants did not view the make-up condition as a feminine leadership role. Instead, the leadership position was viewed as a masculine role, no matter the gendered nature of the task. The make-up kit or tool set served as gender role primers, they did not change the nature of the leadership as fundamentally masculine

In sum, the results from this study yield support for half of the five hypotheses. There was no support for the hypotheses predicting that gender would interact with task type such that participants leading in a gender congruent task would be more likely to have higher levels of leadership efficacy and perceived performance, as well as a stronger desire to attain leadership positions in the future and persist in the leadership role. On the other hand, the results show a strong effect for gender role orientation such that masculine leaders showed higher levels than female leaders for all dependent variables. These effects support the final hypothesis, that gender role orientation would be a stronger predictor of the dependent variables than gender. Yet, I was surprised to find that the task did not matter for the last hypothesis.

Limitations

The major limitations for this research include the use of undergraduate students and research confederates as well as the nature of the task. I was limited in the number and scope of available participants because of the chosen methodology, laboratory experimentation at an undergraduate university. As the selection pool was rather small, I relied on research confederates to serve as "participants." Though their assistance limited my ability to understand the follower's perception of the leader's performance, their presence did bring a certain degree of control to the meetings. Despite the inexperienced participants, this research does have external validity. Undergraduate students are frequently forced to work in small groups, often assigned by faculty. As a result, they are familiar with working in groups with members they do no know. In addition, the two minute audio-recorded ad-campaign served as a motivation to take the task seriously.

The condition may not have changed the gendered nature of the task, but using make-up and tools could have portrayed different aspects of masculinity and femininity. While make-up is

typically associated with women and tools with men, they highlight gender in a biased manner. In general, tools are more positive than negative and are associated with building and improvement. On the other hand, make-up emphasizes the trivial nature of women and a tendency towards vanity. Thus, the tool condition portrayed males and masculinity in a positive light; whereas, the make-up condition reflected a negative side of females and femininity.

Future Research

In order to further understand the importance of gender role orientation, future researchers should attempt to experimentally determine the causal factors that determine gender role orientation. Though we know the characteristics and traits associated with masculine or feminine gender roles, what makes an individual more prone to either one? The fact that gender did not play a significant role suggests that stereotypes regarding women in leadership are based on their femininity rather than their gender. As a result, future research should attempt to further understand the differentiation between female and feminine from both the leader and follower's perspective. Finally, research should continue to examine the difference between masculine and feminine leadership roles to understand why the participants here chose female leaders for the feminine task but experienced lower levels of leadership efficacy.

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The Role of Gender Orientation and Gender Roles on Leadership Performance and Perceptions

1. **Before each participant arrives**
   a. Ensure there is a tape labeled and ready in the recorder
   b. Check what condition to run
      i. Get appropriate folder
      ii. Include appropriate task description
   c. Get the participant questionnaire packet ready
      i. Record all condition Information
      ii. Number each sheet with participant number
   d. Don't forget the lab coat!
2. **Go greet participants, select leader**
3. **Greet Participant and bring to experimental room**
   a. Hello SUBJECT, my name is Ashley Pyle and I will be your experimenter today. Please follow me and we'll get started. Today you will be participating in an experiment looking at work group performance. This is a group experiment. As you saw outside, there will be three of you in this group. You were randomly chosen as the leader of the group. Before I go into the details of the experiment further, I would like you to fill out these forms. Please just knock on the door when you have completed the questionnaires.
   b. Wait for SS to complete questionnaires
4. **SS Informed about nature of the experiment**
   a. Bring materials
   b. Take away the clipboard with the first set of questionnaires
      i. Participant Information
      ii. Consent From
      iii. SES
      iv. Pre-Measure
   c. "You will need this binder for the next part of the experiment. Basically you will be leading the group in developing an ad campaign for the items pictured and defined in the folder. The sheet in the folder lists several questions that you need to lead the group in answering. You will have 5 minutes to prepare for the meeting with the followers. In the meeting, you will have 7 minutes to answer the questions. After meeting with the group you will be asked to deliver an approximately 2 minute presentation that will be audio-recorded. I'll be back in 5 minutes to address any questions you might have then."
   d. Start the Stopwatch
5. **After 5 minutes to prepare...**
   a. Bring in Mid-Measure Questionnaire
   b. "5 minutes have passed. Do you have any questions concerning the task?"
   c. "Please fill out this questionnaire before entering the meeting with the other two group members. As you are doing this, I will go check on the other two participants. When you are done please knock on the door lightly."

6. **Confederates should be ready to enter the meeting when participant knocks on the door**
   a. Bring confederates into the meeting room.
   b. "You will now have your ten minute meeting with _____ and _____ . I will be back in seven minutes. I am going to turn the audio recorder on now and I will return after then ten minutes.
   c. START the TAPE
   d. Leave the room and start the stopwatch
7. **Wait ten minutes...Meeting Over**
   a. "You're meeting is over. While _____ and _____ come with me, you will have 3 minutes to prepare for your ad pitch. I will be back shortly to answer any questions you might have."
   b. Start Stopwatch
8. **Wait two minutes**
   a. "Do you have any questions regarding your task?"
   b. "I will now start the audiorecorder and I will be back in two minutes"
9. **Wait two minutes**
   a. "Thank you, two minutes have passed."
   b. "We will now work on another very, very similar task. First I will need you to fill out a few more questionnaires. The next task involves leading the group as the previous task did. You can stay in the leadership role if you so choose or you may give the leadership role to one of the other participants. But first I need you to fill out another questionnaire. This one is on the front and the back of the sheet, so please be sure to answer each question. Again, just knock on the door when you are done."
10. **Debrief:**
    a. There isn't another task! I just want to ask you a few questions...
    b. What do you think this experiment is about?
    c. Were you nervous talking to the others?
    d. Were you nervous giving your short speech?
    e. How do you think you did on the task?
    f. What did the task have to do with it?
    g. Tell about the confederates
       i. Completely normal reaction to believe they weren't real participants.
       ii. Did you have any idea? If so, how?
       iii. Please keep this a secret!!
    h. I deceived you about the second task to see how willing you would be to continue in the leadership role
       i. Again, no reason to believe that you wouldn't have to. Completely normal to either give up the role or keep it.
    i. If you are feeling upset, I can give you CAPS information

APPENDIX B
Consent Form

Principle Investigator
Ashley Pyle, (804) 662-3908-6825. If you have any questions or concerns, please email
Ashley.pyle@richmond.edu

Project Description
The purpose of this research is to better understand some factors that contribute to affective, cognitive, and motivational response patterns in the small group domain. If you agree to participate, you may be asked to perform a group task with other individuals. This task will also involve a short audio recording. Afterwards, we will ask you to complete a series of questionnaires regarding your experiences in this experiment. The experiment will last approximately one hour.

Voluntary Participation
You may refuse to participate or withdraw from this study at anytime without penalty or loss of benefits to which you are entitled. If you are doing this experiment for credit, you will receive one credit for each hour of participation. If you are being paid, you will receive $10 for each hour.

Confidentiality of Records
Your identity will be kept confidential by replacing personally identifying information with a code number in the data files. The audio recorded portion of the task will also be associated with a number to ensure your anonymity. Only the Principle Investigator will have access to identifiable data.

Participant's Rights Information
If you have any questions concerning your rights as a research participant, you may contact the Chair of the University of Richmond's Institutional Review Board for the Protection of Research Participants at 289-8417 for information or assistance.

Participant's Consent
    The study has been described to me and I understand that my participation is voluntary and that I am free to withdraw my consent and discontinue my participation in the project at any time without penalty.
    I also understand that the results of the study will be treated in strict confidence and will be reported as group data sets without personally identifying information, possibly in scholarly publications.
    I understand that if I have any questions or concerns about this experiment I may pose them to Ashley Pyle (Ashley.pyle@richmond.edu) or Dr. Crystal Hoyt (choyt@richmond.edu). I have read and understand the above information and I consent to participating in this study by signing below.

_____   _____

Signature   **Date**

_____

Signature of Investigator

APPENDIX C
Bem Sex Role Inventory

Please indicate the extent to which you associate with each of the following characteristics or statements. Please write the number corresponding to your answer on the line next to each item using the following scale:

Always or Almost Always Untrue	Untrue	Somewhat Untrue	Neither True or Untrue	Somewhat True	True	Always or Almost Always True
-3	-2	-1	0	1	2	3

_____ 1. Self-Reliant

_____ 2. Yielding

_____ 3. Assertive

_____ 4. Defends own beliefs

_____ 5. Cheerful

_____ 6. Moody

_____ 7. Independent

_____ 8. Shy

_____ 9. Conscientious

_____ 10. Athletic

_____ 11. Affectionate

_____ 12. Theatrical

_____ 13. Helpful

_____ 14. Flatterable

_____ 15. Happy

_____ 16. Strong Personality

_____ 17. Loyal

_____ 18. Unpredictable

_____ 19. Feminine

_____ 20. Reliable

_____ 21. Analytical

_____ 22. Sympathetic

_____ 23. Jealous

_____ 24. Has leadership abilities

_____ 25. Sensitive to the needs of others

_____	26.	*Truthful*
_____	27.	Willing to take risks
_____	28.	Understanding
_____	29.	Secretive
_____	30.	Makes decisions easily
_____	31.	Compassionate
_____	32.	Sincere
_____	33.	*Self-sufficient*
_____	34.	Eager to soothe hurt feelings
_____	35.	Conceited
_____	36.	Dominant
_____	37.	Soft-spoken
_____	38.	Likable
_____	39.	Masculine
_____	40.	Warm
_____	41.	Solemn
_____	42.	Willing to take a stand
_____	43.	Tender
_____	44.	Friendly
_____	45.	Aggressive
_____	46.	Gullible
_____	47.	Inefficient
_____	48.	Acts as a leader
_____	49.	Childlike
_____	50.	Adaptable
_____	51.	Individualistic
_____	52.	Does not use harsh language
_____	53.	Unsystematic
_____	54.	Competitive
_____	55.	Loves children
_____	56.	Tactful
_____	57.	Ambitious
_____	58.	Gentle
_____	59.	Conventional

APPENDIX D
Preameasure – Initial Leadership Efficacy

Please indicate the extent to which you agree with each of the following statements. Please write the number corresponding to your answer on the line next to each item using the following scale:

Strongly Disagree	Disagree	Somewhat Disagree	Neither Agree nor Disagree	Somewhat Agree	Agree	Strongly Agree
-3	-2	-1	0	1	2	3

_____ 1. I feel that I know a lot more than most leaders about what it takes to be a good leader.

_____ 2. I know what it takes to make a work group accomplish its tasks.

_____ 3. In general, I am very good at leading a group of my peers.

_____ 4. I am confident of my ability to influence a work group that I lead.

_____ 5. I know what it takes to keep a work group running smoothly.

_____ 6. I know how to encourage good work group performance.

_____ 7. I feel comfortable allowing most group members to contribute to the task when I am leading a work group.

_____ 8. Overall, I believe that I can lead a work group successfully.

_____ 9. Leadership is important to me.

_____ 10. I am a good leader.

_____ 11. I have the ability to be a qualified leader.

_____ 12. I have the ability to perform as a leader.

_____ 13. I feel comfortable being selected leader.

_____ 14. I feel tense about being selected leader.

_____ 15. I would like to remain in my position as leader of the group.

_____ 16. I would like to give up my position as leader of the group.

_____ 17. I feel comfortable/have experience?? planning events.

_____ 18. I have the ability to give directions clearly

_____ 19. I have the ability to get others to follow my directions

APPENDIX E
Midmeasure

Please indicate the extent to which you agree with each of the following statements. Please write the number corresponding to your answer on the line next to each item using the following scale:

Strongly Disagree	Disagree	Somewhat Disagree	Neither Agree nor Disagree	Somewhat Agree	Agree	Strongly Agree
-3	-2	-1	0	1	2	3

_____ 1. I have confidence in my ability to do this leadership task

_____ 2. I have the skills needed to perform this leadership task very well.

_____ 3. I doubt my ability to do this leadership task.

_____ 4. Most people doing this leadership task can do it better than I can.

_____ 5. I have the abilities to complete this leadership task successfully.

_____ 6. This leadership task is very demanding.

_____ 7. I feel that I know a lot more than most leaders about what it takes to be a good leader.

_____ 8. I know what it takes to make a work group accomplish its tasks.

_____ 9. In general, I am very good at leading a group of my peers.

_____ 10. I am confident of my ability to influence a work group that I lead.

_____ 11. I know what it takes to keep a work group running smoothly.

_____ 12. I know how to encourage good work group performance.

_____ 13. I feel comfortable allowing most group members to contribute to the task when I am leading a work group.

_____ 14. Overall, I believe that I can lead a work group successfully.

APPENDIX F
Ad Campaign Task

Your advertisement company has been selected by a home improvement company to develop an ad campaign for their latest line of tools. As the randomly selected leader you will have 5 minutes to prepare on your own before meeting with the other two group members to complete the task. You will have a 7 minute meeting with your followers to discuss and complete the campaign.

The Ad Campaign should attempt to answer the following questions:

- What makes this product unique?
- Who will you target the product to?
- Where will you sell it?
- How will you advertise it?
- What will the slogan be?

After your ten minute meeting, you will be given an additional 3 minutes on your own to plan an approximately 2 minute long presentation for the home improvement company. The presentation will be audio-recorded. Please direct any questions or uncertainties to the experimenter.
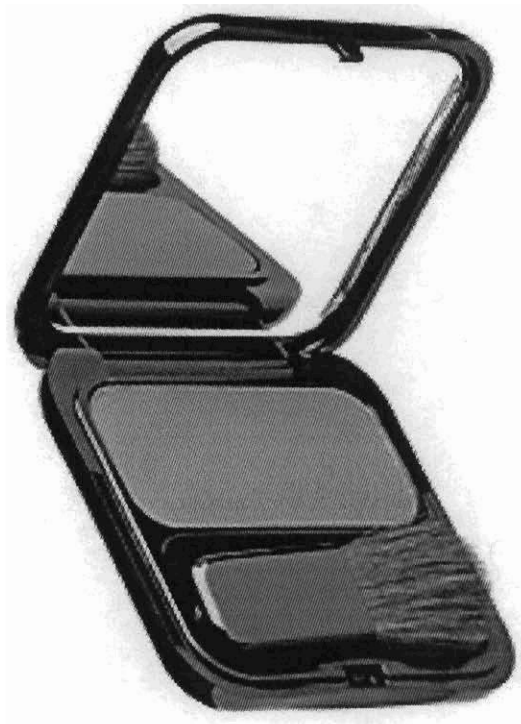
<u>Blush</u>: used to brighten and define cheeks
with a subtle pink for
natural blush undertone, created to highlight
the complexion.
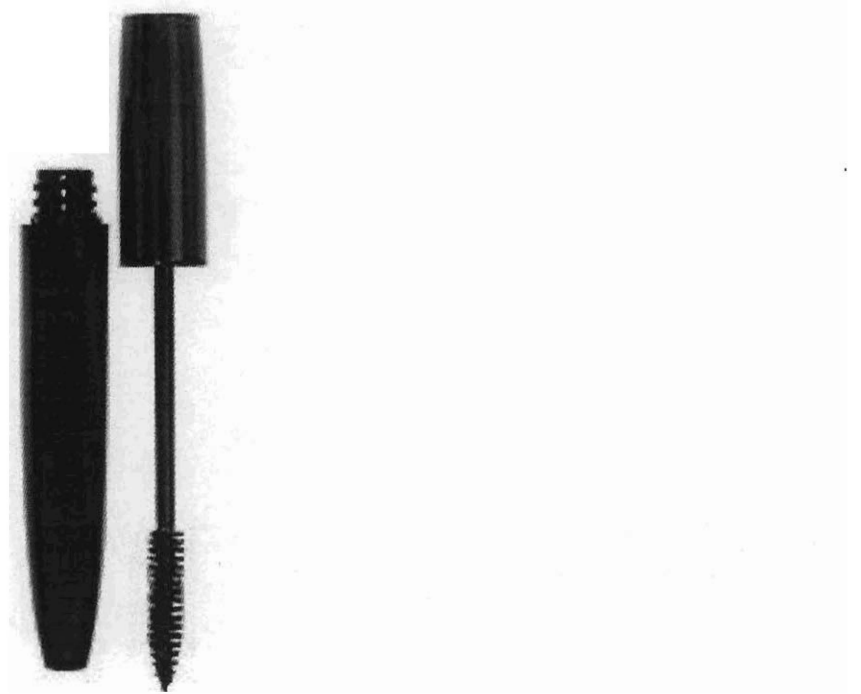
Mascara: used to darken the eyelashes
and accentuate the eyes

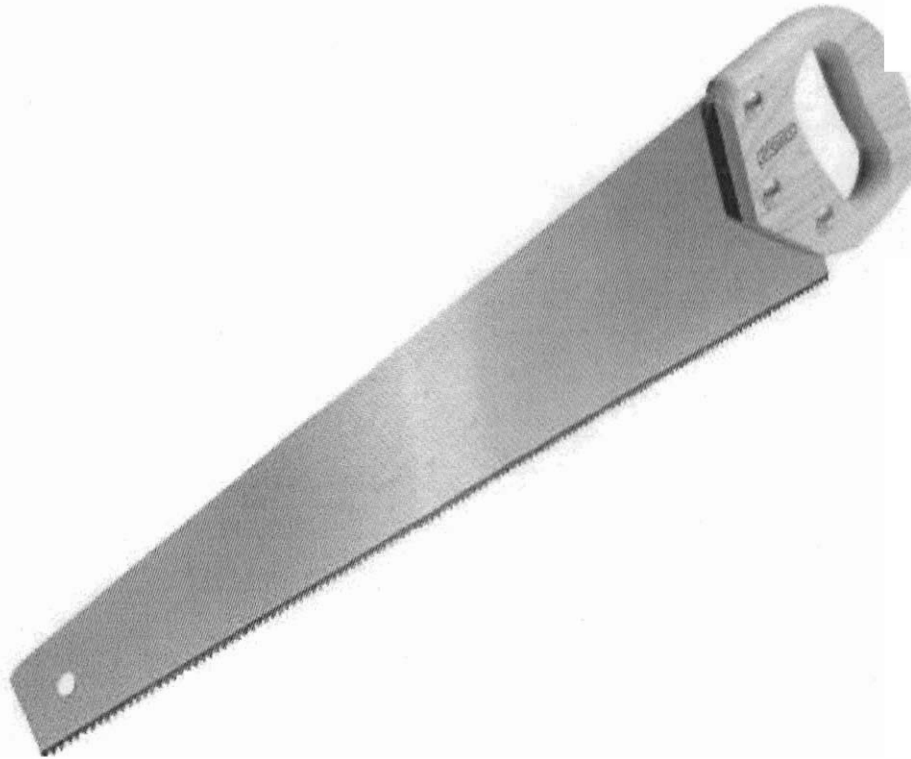**Lipstick:** used to add color and define the shape of the lips

Eyeliner: makeup applied to emphasize the shape of the eyes

Eye Shadow: a cosmetic cream or powder in one of various
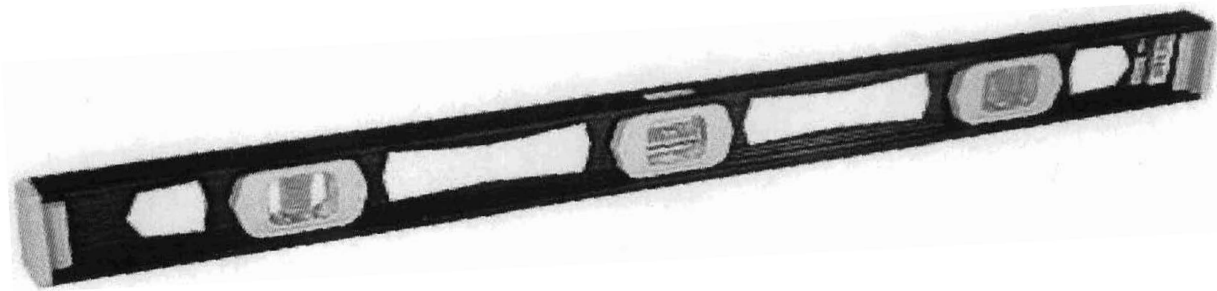colors that is applied to the eyelids to accent
the eyes

<u>Saw</u>: a thin metal blade with a sharp, usually toothed edge,
used for cutting wood, metal, or other hard materials

<u>Hammer</u>: a hand tool used for striking or pounding

Screwdriver: A tool used for turning screws

<u>Level</u>: An instrument for ascertaining whether a surface is horizontal, vertical, or at a 45° angle

<u>Tape Measure</u>: a tool with a tape marked off
in a linear scale,
as of inches or centimeters, for taking
measurements

Please indicate the extent to which you agree with each of the following statements. Please write the number corresponding to your answer on the line next to each item using the following scale:

Strongly Disagree	Disagree	Somewhat Disagree	Neither Agree nor Disagree	Somewhat Agree	Agree	Strongly Agree
-3	-2	-1	0	1	2	3

_____ 1.   I performed well on the leadership task I just completed.

_____ 2.   I feel that I just did a good job leading the group.

_____ 3.   I am content with how well I did the leadership task.

_____ 4.   This task was difficult.

_____ 5.   I am confident that I performed well.

_____ 6.   This task was hard.

_____ 7.   I felt I was under a lot of pressure during the task.

_____ 8.   I am confident in my leadership performance.

_____ 9.   I was nervous about completing this task.

_____ 10.   I was anxious about completing this task.

_____ 11.   I have the ability to be a qualified leader.

_____ 12.   I have the ability to perform as a leader.

_____ 13.   I feel comfortable being selected leader

_____ 14.   I feel tense about being selected leader

_____ 15.   It is important for me to be selected as a group leader.

_____ 16.   Leadership is important to me.

_____ 17.   I am a good leader.

_____ 18.   I am a leadership-oriented person.

_____ 19.   I would like to retain my position as leader of the group

_____ 20.   I would like to give my leadership position to another member of the group

_____ 21.   I intend to pursue a leadership-oriented career.

_____ 22.   I will actively pursue leadership positions in the future.

_____ 23.   It is important to me that I occupy leadership roles in my future endeavors.

If I could give the leadership position to another member of the group, I would select –

_____

Please indicate the extent to which you agree with each of the following statements. Please write the number corresponding to your answer on the line next to each item using the following scale:

Strongly Disagree	Disagree	Somewhat Disagree	Neither Agree nor Disagree	Somewhat Agree	Agree	Strongly Agree
-3	-2	-1	0	1	2	3

_____ 1.   In my opinion, women in general have more difficulties than do men in leading groups.

_____ 2.   In my opinion, men in general have more difficulties than do women in leading groups.

_____ 3.   Elite leadership positions are more often occupied by men than women.

_____ 4.   People are more comfortable with powerful male leaders than powerful female leaders.

_____ 5.   I, as an individual, am good at leading groups compared to other women.

_____ 6.   I, as an individual, am good at leading groups compared to other men.

_____ 7.   During the task, I often wondered what the experimenter thought about my performance.

_____ 8.   During the task, I often wondered what the followers thought about my performance.

_____ 9.   Some people think I have less leadership ability because of my gender.

_____ 10. The task may have been easier for people of my gender

_____ 11. The experimenter expected me to do poorly because of my gender.

_____ 12. In leadership roles, people of my gender often face biased evaluations.

_____ 13. My gender does not affect people's perception of my leadership ability.

_____ 14. People's stereotypic idea of a leader is more often male than female.

_____ 15. It is easier for men to attain leadership positions than women.

APPENDIX J
Debriefing Notes

Date: _____   Gender: M   F

Participant #:_____   Condition: M   F

a. What do you think this experiment is about?

b. Were you nervous talking to the others? When giving your short speech?

c. Did you keep leadership role? If not, who did you give it to and why?

d. How do you think you did on the task?

e. What did the task have to do with it?

f. Tell about the confederates
     i.   Completely normal reaction to believe they weren't real participants.
     ii. Did you have any idea? If so, how?

     iii. Please keep this a secret!!

g. I deceived you about the second task to see how willing you would be to continue in the leadership role
     iv. Again, no reason to believe that you wouldn't have to. Completely normal to either give up the role or keep it.
h. If you are feeling upset, I can give you CAPS information