

## **INFORMATION TO USERS**

This manuscript has been reproduced from the microfilm master. UMI films the text directly from the original or copy submitted. Thus, some thesis and dissertation copies are in typewriter face, while others may be from any type of computer printer.

**The quality of this reproduction is dependent upon the quality of the copy submitted.** Broken or indistinct print, colored or poor quality illustrations and photographs, print bleedthrough, substandard margins, and improper alignment can adversely affect reproduction.

In the unlikely event that the author did not send UMI a complete manuscript and there are missing pages, these will be noted. Also, if unauthorized copyright material had to be removed, a note will indicate the deletion.

Oversize materials (e.g., maps, drawings, charts) are reproduced by sectioning the original, beginning at the upper left-hand corner and continuing from left to right in equal sections with small overlaps. Each original is also photographed in one exposure and is included in reduced form at the back of the book.

Photographs included in the original manuscript have been reproduced xerographically in this copy. Higher quality 6" x 9" black and white photographic prints are available for any photographs or illustrations appearing in this copy for an additional charge. Contact UMI directly to order.

# **U·M·I**

University Microfilms International  
A Bell & Howell Information Company  
300 North Zeeb Road, Ann Arbor, MI 48106-1346 USA  
313/761-4700 800/521-0600



**Order Number 9431376**

**Gender and intentions to model managerial behavior**

**Xenos, Tina Marina, Ph.D.**

**City University of New York, 1994**

**Copyright ©1994 by Xenos, Tina Marina. All rights reserved.**

**U·M·I**  
300 N. Zeeb Rd.  
Ann Arbor, MI 48106



**GENDER AND INTENTIONS TO MODEL MANAGERIAL BEHAVIOR**

by

**TINA M. XENOS**

**A dissertation submitted to the Graduate Faculty in Psychology in partial fulfillment of the requirements for the degree of Doctor of Philosophy, The City University of New York**

1994

c 1994

TINA M. XENOS

All Rights Reserved

This manuscript has been read and accepted by the Graduate Faculty in Psychology in satisfaction of the dissertation requirement for the degree of Doctor of Philosophy.

April 25, 1994  
Date

Edwin P. Hollander  
Chair of Examining Committee

April 25, 1994  
Date

Arthur Reber  
Executive Officer

Dr. Edwin Hollander  
Dr. Florence Denmark  
Dr. Walter Reichman  
Dr. Gwendolyn Gerber  
Dr. Vita Rabinowitz  
Supervisory Committee

THE CITY UNIVERSITY OF NEW YORK

**Abstract****GENDER AND INTENTIONS TO MODEL MANAGERIAL BEHAVIOR**

by

**Tina M. Xenos****Advisor: Professor Edwin Hollander**

Two hundred women and 144 men read a script in which either a male or female manager discussed a job performance problem with either a male or female subordinate. In general, regardless of whether subjects read about a same-sex or opposite-sex model, or whether the subordinate was male or female, there were no significant differences between men's and women's ratings of the model's effectiveness, the likelihood of their imitating the behavior of the manager, or their self-expectations of effectiveness if they imitated the manager's behavior. However, women were significantly more likely than men to perceive the task as difficult when the subordinate was male, and the manager as lucky when the subordinate was female. In addition, differences were found on the basis of respondent demographic characteristics, such as supervisory status and education. Compared to male supervisors, female supervisors were more likely to view the task as difficult and their handling it well important when the subordinate was male. Compared to graduate women, undergraduate women evaluated the manager more positively, and they were more inclined to believe that they would model the behavior of the manager in the script.

## Acknowledgements

As anyone who knows me can confirm, I am a woman of few words. The length of this dissertation is proof of that. Although there is much I want to say to express my appreciation to the family, friends, colleagues, and professors who have supported and encouraged me throughout my graduate career, I can sum it up with two simple and truly heartfelt words -- thank you!

There are a few extra words that I would like to say to my committee members. To my chairman and advisor, Ed Hollander: thank you for your guidance and unwavering belief in me. You are the standard against which all mentors should be measured! To Florence Denmark: thank you for being such an excellent same-sex role model. To Walter Reichman: thanks for the "pep" talks in which you not only offered words of encouragement, but also entertained me with stories about the trials and tribulations of completing your own dissertation. To my outside readers, Gwen Gerber and Vita Rabinowitz: thank you for agreeing to participate, and for your patience and cooperation in meeting deadlines and coordinating schedules.

## Table of Contents

<b>Introduction</b> .....	<b>1</b>
<b>Social Learning Theory</b> .....	<b>1</b>
<b>Components of Behavior Modeling Training</b> .....	<b>4</b>
<b>Questions Not Addressed in Behavior Modeling Training Studies</b> .....	<b>5</b>
<b>Imitation and Sex of Role Model</b> .....	<b>7</b>
<b>Gender and Leadership Expectations</b> .....	<b>9</b>
<b>Gender and Leadership Evaluations</b> .....	<b>10</b>
<b>Gender and Causal Attributions for Performance</b> .....	<b>13</b>
<b>Causal Attribution Theory</b> .....	<b>13</b>
<b>Causal Attribution Research</b> .....	<b>14</b>
<b>Gender, Context, and Leadership Evaluations</b> .....	<b>18</b>
<b>Rationale and Hypotheses</b> .....	<b>20</b>
<b>Method</b> .....	<b>25</b>
<b>Subjects</b> .....	<b>25</b>
<b>Procedure</b> .....	<b>25</b>
<b>Measures</b> .....	<b>28</b>
<b>Manipulation Checks</b> .....	<b>29</b>

## Table of Contents (continued)

<b>Results</b> .....	<b>31</b>
<b>Demographic Items</b> .....	<b>31</b>
<b>Manipulation Checks</b> .....	<b>31</b>
<b>Perceptions of Similarity To Model</b> .....	<b>31</b>
<b>Sex-Typing of Task</b> .....	<b>33</b>
<b>Manager's Authority</b> .....	<b>36</b>
<b>Task Importance and Predicted Likelihood of Performance</b> .....	<b>37</b>
<b>Dependent Variables</b> .....	<b>37</b>
<b>Hypothesized Variable Relationships</b> .....	<b>39</b>
<b>Likelihood of Imitation</b> .....	<b>39</b>
<b>Self-Expectations of Effectiveness</b> .....	<b>42</b>
<b>Model's Effectiveness</b> .....	<b>42</b>
<b>Manager's Ability</b> .....	<b>43</b>
<b>Non-Hypothesized Variable Relationships</b> .....	<b>45</b>
<b>Task Difficulty</b> .....	<b>45</b>
<b>Manager's Luck</b> .....	<b>47</b>
<b>Manager's Effort</b> .....	<b>48</b>
<b>Likelihood of Manager Repeating Behavior</b> .....	<b>50</b>
<b>Recommendation of Script</b> .....	<b>50</b>

**Table of Contents (continued)**

<b>Discussion</b> .....	<b>51</b>
<b>Research Findings</b> .....	<b>51</b>
<b>Research Design</b> .....	<b>61</b>
<b>Conclusion</b> .....	<b>67</b>
<b>Appendix: Sample Modeling Script and Questionnaire</b> .....	<b>71</b>
<b>References</b> .....	<b>81</b>

## List of Tables

<b>Table 1:</b>	<b>Assignment of Scripts Among Respondents</b>	<b>27</b>
<b>Table 2:</b>	<b>Similarity and Task Importance Ratings by Respondent Gender</b>	<b>32</b>
<b>Table 3:</b>	<b>Similarity Ratings by Education by Manager and Respondent Gender</b>	<b>34</b>
<b>Table 4:</b>	<b>Ratings of Personality Characteristics Required for Task</b>	<b>35</b>
<b>Table 5:</b>	<b>Summary: Multivariate Analysis of Variance of Dependent Variables by Manager, Subordinate, and Respondent</b>	<b>38</b>
<b>Table 6:</b>	<b>Ratings of Likelihood of Imitation by Respondent Gender</b>	<b>40</b>
<b>Table 7:</b>	<b>Imitation and Ability Ratings by Respondent Education and Gender</b>	<b>41</b>
<b>Table 8:</b>	<b>Effectiveness Ratings by Education by Manager and Respondent Gender</b>	<b>44</b>
<b>Table 9:</b>	<b>Task Difficulty and Luck Ratings by Respondent Gender</b>	<b>46</b>
<b>Table 10:</b>	<b>Effort and Recommendation Ratings by Respondent Education and Gender</b>	<b>49</b>

## Introduction

Each year, billions of dollars and millions of hours are devoted to employee training. A large portion of those resources are allocated for supervisory and managerial training. For example in 1992, among employees in U.S. organizations, first-line supervisors and middle managers were the most likely to receive some training from their employer (Filipczak, 1992). One widely accepted method of supervisory and management skills training is behavior modeling. "For developing and refining a supervisor's skills in conducting difficult discussions with employees, behavior modeling is second to none" (Hultman, 1986, p. 60). However, as Baldwin (1992) points out, despite the "explosive increase" in industrial applications of modeling training, and the continued need for research that explores methods of improving or enhancing the technique, empirical research on behavior modeling training has seriously waned in the last decade.

## Social Learning Theory

Behavior modeling training is based on social learning theory, which states that learning is affected by both direct experience (i.e., differential reinforcement) and observing other people's behavior and its consequences for them (Bandura,

1977). Observational learning, as described by the theory, involves four processes: attention, retention, motor reproduction, and motivation.

Attentional processes determine which models are observed and what information is extracted from observation. Characteristics of the models, observers, and the modeled activities affect attention. For example, greater attention to models occurs when: (1) the model is the same age, sex, race, etc. as the observer, possesses high competence or expertise, and is of high status, (2) the model controls resources desired by the observer, (3) the model is rewarded for engaging in the behavior, (4) the behavior is distinctive and not too complex, (5) the behavior is meaningful to the observer, (6) the observer is instructed to, or expected to, perform the behavior, (7) the observer is attracted to the model, (8) the observer has been frequently rewarded for imitation.

Retention processes determine how modeled behaviors are symbolically represented in memory. Repeated exposure to the modeling stimuli results in "enduring, retrievable" visual images of the behavior. In addition, the visual information is transformed into verbal codes. Rehearsal of the visual and verbal codes increases retention.

Motor reproduction processes involve converting the symbolic representations from memory into actions. As individuals try to imitate the modeled behavior, they compare their performance to the memory of what was modeled and they attempt to correct their behavior accordingly. Motivational processes determine which observationally learned responses will be performed.

Behaviors that are rewarded (directly or vicariously) are more likely to be performed than are those that have unrewarding or punishing effects.

Motivation to imitate a model's behavior is affected not only by direct and vicarious reinforcement, but also, by self-efficacy expectancies (Bandura, 1977). Self-efficacy is the degree to which an individual believes that he/she can successfully perform a particular behavior. "Efficacy expectations determine how much effort people will expend and how long they will persist in the face of obstacles and aversive experiences. The stronger the efficacy or mastery expectations, the more active the efforts" (Bandura, 1977, p. 80).

According to Bandura (1977), two sources of efficacy expectations are performance accomplishments and vicarious experience. The individual's own personal experiences of repeated success raise mastery expectations; experiences of repeated failure lower them. Observing the behavior of others (i.e., vicarious experience) also influences self-efficacy.

Proficient models build self-beliefs of capability by conveying to observers effective strategies for managing different situations. Modeling also affects self-efficacy beliefs through a social comparison process. People partly judge their capabilities in comparison with others. Seeing similar others succeed by sustained effort raises observers' beliefs about their own capabilities, whereas observing similar others fail despite high effort lowers observers' judgements of their own capabilities and undermines their efforts. (Wood & Bandura, 1989, pp. 364-5)

### Components of Behavior Modeling Training

Behavior modeling training consists of four basic components:

(1) modeling; (2) role playing; (3) social reinforcement; and (4) transfer of training (Goldstein & Sorcher, 1973). The modeling portion of the training usually consists of videotapes showing an individual (the model) performing and being reinforced for the specific behaviors that the trainees are expected to learn.

During the role-playing portion of training, the trainees practice the specific behaviors (i.e., learning steps) that are displayed by the model. As each trainee's role-playing increasingly approximates the behavior of the model, he/she is given positive feedback, approval, or reward (i.e., social reinforcement) from the trainer and the other participants.

Transfer of training involves increasing the likelihood that what the trainee learns will in fact be applied on the job. This is attempted in terms of the other three components: modeling, role-playing, and social reinforcement. For example, the use of realistic and relevant situations in the modeling films, the order of presentation of role-playing situations from easy to difficult, and reinforcement from the trainees' supervisors are some ways in which transfer can be facilitated.

Behavior modeling training programs are designed not only to convey skills, but also, to build the trainees' self-assurance in their capabilities (Wood & Bandura, 1989). Performance accomplishments, vicarious experience, and verbal persuasion are some of the ways in which the trainees' self-efficacy is

strengthened. The modeling display provides vicarious experience. The role-playing portion of the training results in performance accomplishments. Role-playing allows the trainees to "test their newly acquired skills in simulated situations in which they need not fear making mistakes or appearing inadequate" (Wood & Bandura, 1989, p. 363). Verbal persuasion is provided in the form of positive feedback from the trainer and the other participants.

#### Questions Not Addressed in Behavior Modeling Training Studies

Overall, a review of the literature on behavior modeling training points to the success of that approach to training. The participants believe that the training helps them to perform their jobs better (Latham & Saari, 1979; Russell, Wexley & Hunter, 1984). The trainees retain the knowledge they acquire in training and are able to apply it to later role-playing situations (Burnaska, 1976; Moses & Ritchie, 1976; Latham & Saari, 1979; Decker, 1982). Their subordinates report that they are able to transfer the skills to the job (Byham et al., 1976). The participants' performance improves (Latham & Saari, 1979).

However, studies of behavior modeling training have not addressed the question of whether it is an equally effective technique for male and female managers. The results of some studies are based on all-male samples (Latham & Saari, 1979; Russell et al., 1984). Other studies do not specify how many, if any, of the trainees are female (Burnaska, 1976; Byham et al., 1976; Decker, 1982).

Although some of the studies specify how many subjects are female, they do not analyze their results separately by sex (Decker, 1983; Mann & Decker, 1984).

Studies of behavior modeling training for managers have also neglected to assess the effects of using males versus females in the modeling portion of the training process. As Sorcher and Goldstein (1972) point out:

to maximize participant identification with the model, the model should also be similar to the participants in age, sex, and occupational background. If the participants do not see any similarity between themselves and the model, it is not likely that the model's behavior will be imitated.  
(pp. 37-38)

The vast majority of behavior modeling training studies, however, do not mention the sex of the model. One of the studies which did, showed the stereotypical situation in which the supervisor (the model) was male and the subordinate was female (Decker, 1983). Two other studies which mention the sex of the model used a female (Decker, 1984; Mann & Decker, 1984). Only one of those studies assessed the effect of sex of trainee and found no significant differences between male and female trainees (Decker, 1984). Considering the fact that the study used students as subjects, and it involved behavior modeling of assertiveness skills, the question remains of whether the result would be similar for the training of managerial skills.

### Imitation and Sex of Role Model

Several empirical studies which have investigated the topic of male versus female role models have found the effect on observers varies as a function of sex of model. Stimpson and Reuel's (1984) is one of the few studies which investigated the effect of sex of model on the imitation of leadership behavior. They found that when the model was male, both male and female observers imitated the model's managerial style fairly closely. On the other hand, when the model was female, male observers' leadership style became more democratic and female observers' style became more authoritarian than the model's.

The topic of leadership and sex of role model was also investigated by Geis, Boston, and Hoffman (1985). They tested the hypothesis that men and women who were exposed to more female authority role models would, in a mixed-sex group discussion, share both leadership performance and recognition more equally than would men and women exposed to fewer female models. Two examples of authority role models were used. In the first, a set of four TV commercials showed male-female relationships in which either the males were the authorities (the traditional version) or the females were the authorities (the reversed role version). In the second example, the experimenter in charge of the group's discussion task was either a man or a woman.

Geis et al. (1985) found that men and women who were exposed to either the all-male authority condition (traditional commercials and male experimenter)

or the all-female authority condition (reversed-role commercials and female experimenter) did not differ significantly in leadership performance. However, peer recognition of men's versus women's leadership differed. Whereas leadership recognition was equal in the all-female authority condition, men received more recognition in the all-male condition. In the two mixed authority conditions, reversed-role commercials followed by a male experimenter and traditional commercials followed by a female experimenter, Geis et al. (1985) found significant performance and recognition differences. Men received more leadership recognition and objectively outperformed women.

Robinson, Froehle, and Kurpius (1979) investigated the effect of a male versus a female model in the training of beginning master's degree counseling students. Their subjects viewed a videotape showing counselor tacting response leads (CTRL), in which counselors helped clients "to be more specific either by defining terms and physiological reactions or by exploring the significant happenings and circumstances surrounding some previous event" (p. 76).

After viewing the modeling videotape, the subjects were shown a videotape of client problem statements. Each subject's oral responses to each of the client statements were judged as to whether or not it was a CTRL, and the quality of each CTRL was rated. Robinson et al. (1979) found no significant difference between subjects who were exposed to a male model and subjects who were exposed to a female model.

As Robinson et al. (1979) point out, their finding that sex of model did not make a difference in subsequent observer performance may have been due to the modeled behavior (CTRL) being judged as equally appropriate for male and female counselors. However, when the modeled behavior is more gender typed (e.g., reflection of feeling being feminine, confrontation being masculine), Robinson et al. believe that sex of role model may make a difference. Schunk (1987) expresses a similar view and cites a few studies, which looked at sex of model and children's imitation of behavior, that support the hypothesis. According to Schunk, model sex will not influence observers when the task is perceived as appropriate for both sexes. On the other hand, observers are more likely to be influenced by same-sex models when the task is perceived as more appropriate for members of one sex, especially if the observer views the task as sex-inappropriate for him/her.

### Gender and Leadership Expectations

That the role of manager is perceived as more appropriate for men than women was shown by Schein (1973). She found that women are less likely to be recognized as possessing the characteristics perceived as requisite for success as a manager. In her study, male middle managers believed that successful middle managers possess characteristics, attitudes, and temperaments that are more commonly ascribed to men in general than to women in general. Similarly, recent

studies have shown that for ratings by male managers, this relationship between sex role stereotypes and requisite management characteristics still exists (Brenner et al., 1989; Heilman et al., 1989). However, women managers view successful middle managers as possessing characteristics, attitudes, and temperaments that are ascribed to both men and women in general (Brenner et al., 1989).

### Gender and Leadership Evaluations

In addition to affecting expectations about leadership, sex role stereotypes also affect the evaluation of behavior. As White et al. (1981) point out, leadership behaviors that are compatible with sex role expectations are evaluated more positively than behaviors that are in conflict with such expectations. For example, Bartol and Butterfield (1976) found that, when presented with written descriptions of managerial behavior, subjects rated males higher than females when they used an initiation-of-structure style and females higher than males when they used a consideration style. According to Izraeli and Izraeli (1985), Bartol and Butterfield's results may be due to the fact that the undergraduates used as subjects were less responsive to cues about performance competence and more affected by sex-role stereotypes than practicing managers would be. Thus, Izraeli and Izraeli replicated Bartol and Butterfield's study, using a sample of managers. As they predicted, sex of manager did not have an overall main effect on performance evaluation.

Although Izraeli and Izraeli (1985) argue that, when comparing students' and managers' evaluations of male versus female leaders, managers are more responsive to the behavioral cues relevant to the occupational role than to sex-role stereotypes, several studies have found that managers do evaluate males and females differently. An example of a study which showed differences in managers' evaluations of leadership style, depending upon the leader's sex, is Jago and Vroom's (1982). They found that males and females whose typical managerial style was perceived to be participative were rated nearly equally favorable. But, when the managers' typical leadership style was perceived to be autocratic, females were evaluated more negatively than males. The results of Eagly, Makhijani, and Klonsky's (1992) metaanalysis of leader evaluation experiments support this finding. They found that "women in leadership roles were devalued relative to their male counterparts when leadership or management was carried out in stereotypically masculine styles, particularly when this style was autocratic and nonparticipative" (p. 18).

Wiley and Eskilson (1982) found that the use of similar influence techniques by men and women did not result in equivalent evaluations of their performance. In their study, middle managers were given scripts of a dialogue in which one of the people successfully persuaded the other to adopt a specific plan of action by utilizing either reward power or expert power. Wiley and Eskilson found that males were seen as more effective when they used expert power and females were seen as more effective when they used reward power.

In Mai-Dalton et al.'s (1979) study, banking executives read a scenario describing a male or female manager who coped with a job-related conflict in either an unemotional, calm manner or an emotional, angry manner. In evaluating the behavior, the executives judged emotional, angry behavior as more effective and appropriate when it was displayed by a female manager than when it was displayed by a male manager. In addition, Mai-Dalton et al. found that males' and females' ratings of the likelihood that they would behave the same as the calm, unemotional male manager did not differ. However, when the unemotional, calm manager was female, females were more likely than males to indicate that they would behave the same as the stimulus person.

The stereotypical view of women reacting more emotionally (and by implication, more irrationally) to situations might also account for one of Rosen and Jerdee's (1974) findings. In their study, male banking managers were asked to react to a series of in-basket items. One of the items was a report from a supervisor describing a problem with one of his/her subordinates and requesting the termination or at least the transfer of the subordinate. Rosen and Jerdee found that, for performance problems, when the requesting supervisor was male, subjects rated termination of the subordinate high and transfer low. On the other hand, when the requesting supervisor was female, termination of the subordinate was rated low and transfer high.

## Gender and Causal Attributions for Performance

### Causal Attribution Theory

As Nieva and Gutek (1980) point out, "the process of evaluation includes not only the judgement of the worth of the performance being evaluated, but also the attribution of the causality for that performance" (p. 269). According to the Attribution Model of Motivation (Weiner, Frieze, Kukla, Reed, Rest, & Rosenbaum, 1972), individuals make inferences about the causes of their own and others' achievement behaviors in terms of four elements: ability, effort, task difficulty, and luck. These four causes vary along two basic dimensions: locus of control (internal versus external) and degree of stability (fixed versus variable). Ability is perceived as internal and stable; effort as internal and unstable; task difficulty as external and stable; and luck as external and unstable.

According to the expectations hypothesis of sex differences in causal attributions (Deaux, 1984; Deaux & Major, 1987), differences in initial expectations for male and female performance exist and are based on gender stereotypes. Generally, it is assumed that men will perform better than women on a variety of tasks. In particular, the sex-linkage of the task, in combination with the actor's sex is a major influence on initial performance expectations (e.g., women are not expected to be successful on "masculine" tasks). "Differential expectations lead to differential attributions even when outcome is held constant: attribution to stable and internal causes when there is a fit between expectancy

and performance, and attributions to unstable causes when there is a discrepancy" (Deaux, 1984, p. 111). Ability (a stable, internal factor) is assumed to be the cause of a male's success and a female's failure, whereas luck and effort (unstable factors) are assumed to be the causes of a male's failure and a female's success.

### Causal Attribution Research

Numerous studies have investigated whether the sex of the performer influences causal attributions, and the results of those studies have been widely cited (e.g., Frieze, Fisher, Hanusa, McHugh, & Valle, 1978; Nieva & Gutek, 1980; Deaux, 1984; Deaux & Major, 1987). For example, on the basis of their review of the literature on social-perception and self-perception attribution research, Ross and Fletcher (1985) reached the following three conclusions:

- 1) There is little effect for sex of subject in the social perception studies. Male and female perceivers make similar attributions for success and failure by male and female performers.
- 2) When differences in attribution do occur as a function of performer's sex:
  - a) a male's success is more likely to be attributed to ability and less likely to be attributed to luck or effort than is a female's success.

- b) a male's failure is more likely to be attributed to bad luck or lack of effort and is less likely to be attributed to lack of ability than is a female's failure.
- 3) The most common explanation for the effects of sex of performer on attributions focuses on the differential expectations attributors have for male and female performers.

Several studies have addressed the specific issue of gender and causal attributions for performance in a managerial role. Garland and Price (1977) investigated the relationship between male business students' generalized attitudes toward women in management and the causal attributions they made for the success or failure of a hypothetical female manager. Using the Women as Managers Scale (WAMS) developed by Peters, Terborg, and Taynor (1974), Garland and Price found that internal attributions (i.e., ability and hard work) for success were associated with more positive attitudes toward women in management (higher WAMS scores), while external attributions (i.e., good luck and easy job) were associated with more negative attitudes toward women in management (lower WAMS scores). Attitudes toward women in management (WAMS scores), however, were unrelated to causal attributions for failure.

Stevens and DeNisi (1980) replicated Garland and Price's (1977) study and addressed one of its design limitations by including both male and female students in their sample. Contrary to Garland and Price's results, Stevens and DeNisi

found that the WAMS scores of their male subjects were significantly related to causal attributions in the failure, as well as the success condition. For males, WAMS scores were positively correlated with ability and effort (i.e., hard work) attributions in the success condition, and negatively correlated with ability and effort attributions in the failure condition. For female subjects, on the other hand, there was no significant correlation between WAMS scores and causal attributions for either the manager's success or failure.

Another replication of Garland and Price's (1977) study, using a sample of employed men and women, was conducted by Garland, Hale, and Burnson (1982). Their results for male respondents parallel those of the original study. There were significantly positive correlations between WAMS scores and attributions to ability and hard work in the success condition, and no significant correlations between causal attributions and WAMS scores in the failure condition. Among female respondents, the results in the success condition correspond to those of Stevens and DeNisi (1980). There were no significant correlations between WAMS scores and causal attributions. However, contrary to Stevens and DeNisi's findings, significant relationships between attributions and WAMS scores were found in the failure condition. WAMS scores were negatively correlated with ability and luck attributions, and positively correlated with job attributions (i.e., difficult job).

Two limitations in the designs of the three studies (Garland & Price, 1977; Stevens & DeNisi, 1980; Garland et al., 1982) which looked at the relationship

between attitudes toward women in management and causal attributions can be pointed out. First, potential differences in attributions for male versus female performance were not explored. None of the studies included scenarios in which a male manager was described as succeeding or failing. Second, by categorizing ability and effort attributions together (because they are both perceived as internal causes) differences in the two types of attributions were ignored.

Individuals tend to infer an inverse relationship between ability and effort. "The high-ability person is assumed to exert less effort to produce success than the low-ability person. Similarly, success in the presence of low effort implies higher ability than success in the presence of high effort" (Ross & Fletcher, 1985, p. 87). In addition, ability and effort attributions differ from each other on the dimension of stability. Ability is perceived as stable; effort as unstable. As Weiner et al. (1972) point out, research has shown that expectancies for future performance are "primarily determined by the stability, rather than locus of control of the attributional element" (p. 97). Thus, expectations for future success are higher when successful performance is attributed to ability.

The results of L'Heureux-Barrett and Barnes-Farrell (1991) tend to confirm the existence not only of a relationship between attributions and expectancies for managerial behavior, but also differences for both elements on the basis of manager sex. In their study, male and female undergraduates attributed female managers' job success to significantly greater effort than male managers' job success. On the other hand, the mean ability ratings participants

assigned to male managers were significantly greater than the mean ability ratings for female managers. In addition, the average rating on expected future performance was significantly higher for male managers.

### Gender, Context, and Leadership Evaluations

Although L'Heureux-Barrett and Barnes-Farrell (1991) found sex differences in causal attributions and expected future performance, they found no significant differences in the perceived current effectiveness of male versus female managers. Similarly, Offermann (1986) found that despite the fact that female and male leaders were evaluated as being equally effective currently, there were sex differences for predictions of future success. For groups that had a female leader, sex of followers affected ratings of future performance. Predictions of future success were higher for mixed-sex groups (i.e., composed of both male and female followers) than for all-female or all-male follower groups.

The interaction between sex of manager and sex of subordinate in determining performance expectations was also investigated by Rose and Andiappan (1978). They found that when evaluating hypothetical applicants for managerial positions, their subjects expected females to be more successful, have longer careers with the employer, better satisfy customers, and provide more satisfaction for subordinates when the position involved supervising predominately

female subordinates. Male applicants were expected to perform better supervising predominately male subordinates.

Similarly, Jacobson, Antcnelli, Winning, and Opeil (1977) found that evaluations of female supervisors were based not only on their behavior, but also on the sex of their subordinates. A female supervisor who was punitive with a poorly performing male subordinate (i.e., fired him) was evaluated more negatively than a female supervisor who dealt harshly with another woman, or a male supervisor who was punitive with a subordinate of either sex. In addition, a female supervisor who showed leniency toward a poorly performing female subordinate (i.e., gave her one more chance) was judged more negatively than a female supervisor who was lenient with a male subordinate, or a male supervisor who was lenient with a subordinate of either sex.

In addition to finding that sex of influencer affected which type of influence technique was perceived most effective, Wiley and Eskilson (1982) found an interaction between sex of influence target, sex of influencer, and perceptions of the influencer's power. A woman influencing a man was seen as less powerful than a woman influencing another woman or a man influencing either a woman or a man. A man influencing another man was perceived as the most powerful.

### Rationale and Hypotheses

As Goldstein and Sorcher (1974) point out, "learning by modeling cannot occur unless the observer at minimum, pays attention to the modeling display . . . the attentional component of modeling will be enhanced when the model is of high status, competent, and of the same age and sex as the observer . . ." (p. 29). Although the literature on behavior modeling has theoretically acknowledged the importance of sex of model, it has not empirically investigated this element of the modeling display. In particular, the issue of using female models in training managers has not been studied.

In response to this gap in the literature, this study focused on the modeling portion of behavior modeling training. A full behavior modeling training program was not included in the design of this study because it would be difficult to isolate the effects that are due to the modeling portion. Any differences in results between groups might be due to the modeling. However, they might be due to one or more of the other components of training or the interaction of the modeling with those components. Inclusion of role-playing and social reinforcement from the other participants would introduce the need for controlling numerous variables, which due to practical constraints, could not all be controlled. For example, the variable of gender of role-playing partner singly, or in combination with other variables (e.g., subject sex, model sex, role-playing situation, etc.), might affect the results. Similarly, differences in social

reinforcement might result, depending upon such factors as subject sex, role-player sex, model sex, etc.

In addition, modeling scripts rather than modeling videotapes were used in order to control for the potential influence of variables having to do with the model's and his/her subordinate's appearance (e.g., attractiveness, race, dress, etc.). As Deaux and Major (1987) point out, "certain features of a target such as dress or nonverbal gestures may cause a perceiver to invoke particular gender subtypes and their associated beliefs" (p. 374). For example, Heilman and Stopeck (1985) found that there are differences in perceptions of capability and causal attributions for success for attractive female managers versus attractive male managers. Whereas attractive men, compared to unattractive men, were viewed as more capable and their success was more strongly attributed to ability, attractive women, compared to unattractive women, were perceived as less capable and their success was attributed less to ability.

This study investigated the effects of sex of model, sex of respondent, and sex of model's subordinate. The variables of model sex and respondent sex were included because past research has shown that the effects of modeling differ depending upon both variables (Thorensen et al., 1967; Stimpson & Reuel, 1984). In addition, it was expected that sex of model is particularly important for the modeling of managerial behaviors by female subjects because same-sex models have been found to be more effective when the task is viewed as sex-inappropriate for the observer (Schunk, 1987) and research indicates that the role

of manager is perceived as more appropriate for men than women (Schein, 1973; Heilman et al., 1989). Considering that modeling is expected to be more effective when the model is perceived as competent (Goldstein & Sorcher, 1974; Decker & Nathan, 1985), sex of the model's subordinate was included as a variable in this study because evaluations of female managers differ depending upon whether they interact with a male or a female subordinate (Wiley & Eskilson, 1982; Jacobson et al., 1977).

This study tested the following hypotheses:

- 1) Respondents who read about a same-sex model will rate the likelihood of their imitating the model higher than respondents who read about an opposite-sex model.

According to Wood and Bandura (1989), the likelihood of adopting modeled behavior is increased by one's perceived similarity to the model. It was assumed that, female respondents would perceive themselves as more similar to a female model than a male model, and male respondents would perceive themselves as more similar to a male model than a female model. Another reason for this hypothesis is Mai-Dalton et al.'s (1979) finding that males were less likely to indicate that they would behave the same as a female model.

- 2) Compared to females who read about any of the other model/subordinate combinations, females who read about the female model counseling a female subordinate expect that they, themselves, will be more effective counseling a subordinate.

According to Wood and Bandura (1989), "the impact that modeling has on beliefs about one's capabilities is greatly increased by one's perceived similarity to the models" (p. 363). In addition, they state that the likelihood of adopting modeled behavior is increased by one's expectations that the behavior will produce valued outcomes, rather than unrewarding or punishing effects. As assumed in Hypothesis 1, it was expected that the female respondents would perceive themselves as more similar to the female model, which would increase expectations of their own effectiveness. In addition, considering that women are evaluated more favorably for supervising other women (Rose & Andiappan, 1978), it was assumed that the situation showing the female model with the female subordinate would be perceived as more likely to result in reward, thus increasing the female respondents' self-expectations of effectiveness.

- 3) Regardless of the sex of the respondent, the female model whose subordinate is also a woman is perceived as most effective.

Although the scripts for this study were constructed so that there were not any objective differences in the performance of the male versus female model, it was hypothesized that sex of model and sex of subordinate would affect respondents' evaluations. As White et al. (1981) point out, behaviors that are compatible with sex role expectations are evaluated more positively than behaviors that are in conflict with such expectations. It was assumed the interpersonal skills needed for counseling a subordinate would be perceived as more compatible with the feminine sex role stereotype than with the masculine

sex role stereotype. The findings of Schein (1973) and Heilman et al. (1989) support this assumption. They found that successful managers were perceived to be more similar to women in general than to men in general on the traits of helpful, intuitive, understanding, and aware of others' feelings. Thus, it was hypothesized that the female model in this study would be evaluated as more effective than the male model. It was also expected that the sex of the model's subordinate would influence that evaluation. Considering that women are evaluated more favorably for supervising other women (Rose & Andiappan, 1978), it was hypothesized that the female model whose subordinate is also a woman would be perceived as most effective.

- 4) The male model's performance is more likely to be attributed to ability and than is the female model's performance.

Due to the fact that the subordinate in the script agrees to take steps to improve his/her performance, it was assumed that the manager would be perceived as having succeeded at the task of counseling the subordinate. Considering that research (e.g., Frieze et al., 1978; Nieva & Gutek, 1980; Deaux & Major, 1987; L'Heureux-Barrett & Barnes-Farrell, 1991) has shown that a male's success is more likely to be attributed to ability than is a female's success, it was expected that those findings would be replicated in this study.

- 5) Subjects who read about a male model are more likely to believe they will be effective if they imitate the model.

Based on the prediction in Hypothesis 4 that respondents would be more likely to perceive the male model's behavior is due to ability, it was assumed that it would be seen as a stable behavior that can not only be repeated in the future by the model, but can also be effectively replicated by the respondent himself/herself.

### Method

#### Subjects

The sample of participants consisted of 344 individuals (200 women and 144 men) enrolled in undergraduate and graduate business and psychology courses at various schools in New York City during the Spring, Summer, and Fall semesters of 1993. Most of the subjects were graduate students (65%) and were between the ages of 20 and 29 (69%). Fifty percent of the respondents were White, 11% were Black, 10% were Hispanic, and 22% were Asian/Pacific Islander. The vast majority of the sample (83%) was employed -- 58% full-time, 25% part-time. Overall, 53% of the participants identified themselves as non-supervisors and 24% identified themselves as first-line supervisors.

#### Procedure

Each subject was randomly assigned to read one of four modeling scripts. As part of a brief introduction, the subjects were told that the script is for a

videotape that is being considered for inclusion in a training program. They were asked to read the script and then answer the questions that followed concerning the script and demographic data about themselves.

### Modeling Scripts

Four modeling scripts in which a manager (model) counsels a subordinate about a performance problem were used in the study:

- 1) a female manager (model) counseling a female subordinate.
- 2) a female manager counseling a male subordinate.
- 3) a male manager counseling a female subordinate.
- 4) a male manager counseling a male subordinate.

Table 1 shows for each script, the number of male and female respondents who read it.

The four scripts were exactly the same in terms of problem presented, setting, and dialogue. In each script, the manager and subordinate discuss the subordinate's declining job performance. The model displays the following key behaviors for "coaching" an employee (Decker & Nathan, 1985):

- a) states the problem in behavioral terms, and immediately focuses on the problem, not the person (ties problem to functioning of the organization).
- b) tries to bring the reasons for the problem into the open.

Table 1  
Assignment of Scripts Among Respondents

<u>Respondent</u>	<u>Total</u> #	<u>Manager/Subordinate Pair</u>			
		<u>MM</u> #	<u>MF</u> #	<u>FM</u> #	<u>FF</u> #
Male	144	36	36	39	33
Female	200	52	47	46	55
<b>Total</b>	<b>344</b>	<b>88</b>	<b>83</b>	<b>85</b>	<b>88</b>

- c) asks for subordinate's suggestions and discusses his/her ideas on how to solve the problem.
- d) listens openly.
- e) agrees on steps that each of them (manager and subordinate) will take to solve the problem.
- f) plans and records a specific follow-up date.

### Measures

After reading the scripts, the subjects completed a questionnaire which asked them to indicate their sex, race, age, education level, employment status, and supervisory status, and which consisted of 5-point bi-polar scales for responding to the following questions:

- 1) Do you recommend that this script be used for training managers?  
(definitely recommend → definitely do not recommend)
- 2) If you had to handle a situation similar to the one in the script:
  - a) how likely would you be to handle the situation in the same way as the manager in the script? (very likely → very unlikely)
  - b) overall, how effective do you think you would be if you handled it in the same way as the manager in the script?  
(very ineffective → very effective)

- 3) Overall, how likely do you think it would be that the manager would handle the situation in a similar way with other employees whom he/she supervises? (very likely → very unlikely)
- 4) Overall, how effective do you think the manager in the script was in handling the situation? (very ineffective → very effective)
- 5) How much ability do you think the manager demonstrated in handling the situation in the script? (very low ability → very high ability)
- 6) How much effort do you think the manager put into handling the situation in the script? (very low effort → very high effort)
- 7) How easy or difficult would you rate the manager's task in the script? (very easy → very difficult)
- 8) How would you describe how the situation in the script turned out? (manager was very lucky → manager was very unlucky)

### Manipulation Checks

In addition to measuring the demographic and dependent variables, the questionnaire included several items which served as manipulation checks. For example, one of the main assumptions of this study was that subjects would view same-sex models as more similar to themselves than opposite-sex models. To assess subjects' perceived similarity to the models, they were asked: How similar to yourself is the manager in the script? (very similar → very dissimilar)

Another assumption was that counseling a subordinate would be viewed as a meaningful task for the subjects. Two items were used to measure task meaningfulness:

- a) How likely is it that sometime in your career, you will be expected to handle situations similar to the one in the script? (very likely → very unlikely)
- b) How important would it be in your career for you to do well handling situations similar to the one in the script? (very important → very unimportant)

A third assumption of this study was that subjects would perceive counseling a subordinate as involving feminine behaviors. The following item was used to measure the perceived sex-typing of the task: The personality characteristics required for a manager to effectively handle the situation in the script are: (very masculine → very feminine)

Perceived status of the model was another variable which was examined. Studies have shown that, in the absence of job title information, men are assumed to hold higher status positions than women (Eagly & Steffen, 1984; Wiley & Eskilson, 1982). Although both the male and the female model were described as "manager of the Sales Department," subjects may have perceived differences in the status of male versus female models. To assess this possibility, the following question was asked: Compared to other people at his/her level, how much

authority do you think the manager in the script has? (much less authority → much more authority)

## Results

### Demographic Items

Potential differences in age, race, education level, employment status, and supervisory status between men and women in the sample were investigated using Chi-square tests. There were no significant differences, except for age. A larger percentage of women than men were 30 years old or more.

### Manipulation Checks

Responses to the manipulation check questions (i.e., perceptions of similarity to model, manager's authority, sex-typing of task, importance of task, and likelihood of being expected to perform the task) were analyzed using an analysis of variance (ANOVA) for each item. Tukey post-hoc tests were also performed as needed.

### Perceptions of Similarity To Model

In general, as was assumed, same-sex models were rated as more similar to oneself than opposite-sex models. Table 2 shows that among respondents who read about a male manager, males were more likely than females to rate the

**Table 2**  
**Similarity and Task Importance Ratings\* by Respondent Gender**

	Male Resp.			Female Resp.			F	Sig
	<u>n</u>	<u>Mean</u>	<u>SD</u>	<u>n</u>	<u>Mean</u>	<u>SD</u>		
<b><u>Similarity</u></b>								
Male manager	72	3.21	1.13	98	2.88	1.16	3.46	.06
Female manager	72	3.07	1.24	100	3.05	1.16	0.11	.92
<b><u>Task importance</u></b>								
Supervisor	47	4.43	0.95	53	4.74	0.49	4.37	.04
Non-supervisor	75	4.55	0.86	108	4.43	0.87	0.87	.35

\* 5 point scales, 1= "low"; 5= "high"

manager as similar to themselves ( $p=.06$ ). In particular, as shown in Table 3, men with a BA or less education were:

- a) somewhat more likely than male graduate students to perceive themselves as similar to the male manager
- b) significantly more likely than female graduate students to rate the male manager as similar to themselves ( $p= .02$ ).

In addition, women who were supervisors rated the female manager as more similar to themselves than the male manager ( $p= .08$ ). Similarly, although manager gender had little effect on perceptions of similarity among undergraduate level women, ratings of similarity did seem to differ among women enrolled in graduate school. Women with some graduate training tended to perceive the female manager as more similar to themselves than the male manager.

#### Sex-Typing of Task

Although it was predicted that the task in the script would be perceived as requiring feminine personality characteristics, this was not found. Seventy percent of the respondents rated the task as neither masculine nor feminine. An interaction, however, between supervisor, subordinate, and respondent gender was found among those subjects who perceived the task to be sex-typed. Table 4 shows that men who read about a male manager with a male subordinate were most likely to label the task masculine and women who read about a female

**Table 3**  
**Similarity Ratings\*\* by Education by Manager and Respondent Gender**

	BA or less			Grad School			F	Sig	
	<u>n</u>	<u>Mean</u>	<u>SD</u>	<u>n</u>	<u>Mean</u>	<u>SD</u>			
<b><u>Similarity</u></b>									
<b><u>Male manager</u></b>							3.31	.02	(Mb:Fg)*
Male resp	24	3.42	1.02	47	3.06	1.15			
Female resp	35	3.23	1.03	62	2.68	1.20			
<b><u>Female manager</u></b>							0.17	.92	
Male resp	20	2.95	1.15	52	3.12	1.28			
Female resp	35	3.11	1.16	63	3.00	1.15			

\* Fb= Female BA; Fg= Female Grad; Mb= Male BA; Mg= Male Grad

\*\* 5 point scale, 1= very dissimilar; 5= very similar

Table 4

Ratings of Personality Characteristics\*\* Required for Task

	Male Respondent			Female Respondent			<u>F</u>	<u>Sig</u>	
	<u>n</u>	<u>Mean</u>	<u>SD</u>	<u>n</u>	<u>Mean</u>	<u>SD</u>			
<u>Mgr/Sub Pair</u>							3.42	.002	(MMM:FFF)*
MF	36	3.08	0.60	47	3.11	0.56			
MM	36	3.31	0.58	52	2.98	0.75			
FM	39	2.87	0.57	46	2.98	0.49			
FF	33	3.12	0.55	53	2.72	0.79			

\*\* 5 point scale: 1= very feminine; 5= very masculine

\* MMM= male mgr/male sub/male resp; FFF= female mgr/female sub/female resp

manager with a female subordinate were most likely to label the task feminine ( $p = .002$ ).

### Manager's Authority

As expected, there was no significant difference in the perceived status of male versus female models. Overall, 42% of the male models and 42% of the female models were rated as possessing the same authority as other managers at their level. Perceptions of the manager's status, however, did differ on the basis of several variables -- manager gender, subordinate gender, respondent education, and respondent gender. When the manager in the script was male, respondents tended to perceive him as possessing more authority than his peers when he was interacting with a male subordinate ( $p = .09$ ).

Within the undergraduate group, the male manager was more likely to be perceived as having more authority than his peers than was the female manager ( $p = .06$ ). In addition, respondents with a BA or some college education rated the male manager's authority significantly higher than did respondents with a graduate education ( $p = .0003$ ).

Among respondents who read about a female manager, ratings of her authority were similar among undergraduate and graduate males. However, among females, those with graduate schooling seemed more likely to rate the manager as possessing less authority than her peers.

### Task Importance and Predicted Likelihood of Performance

The assumptions that being expected to perform the task would be perceived as likely and that performing the task well would be perceived as important were confirmed. Ninety-one percent of the respondents perceived performing the task as moderately (27%) or very important (65%) and more than three-quarters (77%) of the sample indicated that it would be likely that they would be expected to handle situations similar to the one outlined in the script. Compared to Asian respondents, White respondents were significantly more likely to believe that they would be expected to handle the situation sometime in their career ( $p = .02$ ).

Not surprisingly, respondents who were supervisors were the most likely to think that they would be expected to handle discussions similar to the one in the scenario ( $p = .001$ ). Among supervisors, women were significantly ( $p = .04$ ) more likely than men to believe that it was important for them to handle the situation well (see Table 2), specifically when the subordinate was male.

### Dependent Variables

The data from the dependent variable measures (e.g., likelihood of imitation, self-expectations of effectiveness, perceptions of manager's effectiveness, etc.) were analyzed using multivariate analysis of variance (MANOVA). Table 5 summarizes the results of the multivariate tests and, due to space considerations, only those univariate tests which yielded statistically significant findings.

Table 5

**Summary: Multivariate Analysis of Variance of Dependent Variables\***  
**by Manager, Subordinate, and Respondent**

	<u>F</u>	<u>Sig</u>
<b><u>Multivariate Tests</u></b>		
Manager X Subordinate X Respondent	0.60	.79
Subordinate X Respondent	1.74	.08
Manager X Respondent	0.48	.89
Manager X Subordinate	0.39	.94
Respondent	2.16	.02
Subordinate	1.03	.42
Manager	0.38	.94
<b><u>Univariate Tests</u></b>		
<b><u>Subordinate X Respondent</u></b>		
Task difficulty	4.49	.04
Manager's luck	6.78	.01
<b><u>Respondent</u></b>		
Task difficulty	6.45	.01
Manager's luck	7.19	.01

- Dependent variables = likelihood of imitation, self-expectations of effectiveness, task difficulty, manager's: (a) effectiveness, (b) ability, (c) effort, (d) luck, (e) likelihood of repeating behavior

### Hypothesized Variable Relationships

Examination of the multivariate and univariate results from the MANOVA revealed no statistically significant main or interaction effects for the four dependent variables for which hypotheses were presented -- likelihood of imitation, self-expectations of effectiveness, manager's effectiveness, manager's ability. However, ANOVA and Tukey post-hoc analyses of the data revealed that there were several differences in responses (especially on the basis of education) that can be pointed out.

### Likelihood of Imitation

Sixty-two percent of respondents indicated that they were likely to imitate the model, but Hypothesis 1 was not supported. Neither women who read about female models nor men who read about male models were significantly more inclined to believe that they would imitate the manager in the script. Table 6 shows that within the graduate student ( $p = .01$ ) and supervisor ( $p = .08$ ) subgroups, males were more likely than females to indicate that they would imitate the model's behavior.

Table 7 shows that whereas ratings of perceived likelihood of imitation did not vary on the basis of education among male respondents, there was a difference among female respondents. Women with a BA or some college education were significantly more likely to expect that they would handle the situation in the same way as the manager in the script ( $p = .001$ ).

**Table 6**  
**Ratings\* of Likelihood of Imitation by Respondent Gender**

	Male Resp.			Female Resp.			F	Sig
	<u>n</u>	<u>Mean</u>	<u>SD</u>	<u>n</u>	<u>Mean</u>	<u>SD</u>		
<u>Likelihood of imitation</u>								
BA or less	44	3.57	1.15	71	3.72	1.02	0.54	.47
Grad school	99	3.57	1.21	126	3.14	1.24	6.54	.01
Supervisor	47	3.57	1.19	53	3.11	1.35	3.23	.08
Non-supervisor	75	3.59	1.16	108	3.45	1.11	0.61	.44

\* 5 point scale, 1= very unlikely; 5= very likely

**Table 7**  
**Imitation and Ability Ratings\* by Respondent Education and Gender**

	BA or less			Grad School			F	Sig
	<u>n</u>	<u>Mean</u>	<u>SD</u>	<u>n</u>	<u>Mean</u>	<u>SD</u>		
<b><u>Likelihood of imitation</u></b>								
Male resp	44	3.57	1.15	99	3.57	1.21	0.00	.99
Female resp	71	3.72	1.02	126	3.14	1.24	11.03	.001
<b><u>Manager's ability</u></b>								
Male resp	44	3.39	1.08	99	3.39	0.99	0.002	.97
Female resp	71	3.75	0.95	126	3.20	1.11	12.23	.001

\* 5 point scales, 1= "low"; 5= "high"

### Self-Expectations of Effectiveness

Contrary to Hypothesis 5, manager gender did not have a significant effect on respondents' self-expectations of effectiveness. Fifty-nine percent of the participants who read about a male manager and 61% who read about a female manager expected that they would be effective if they behaved the same as the manager in the script.

In addition, the prediction stated in Hypothesis 2 that women who read the female manager/female subordinate script would have significantly higher self-expectations of effectiveness was not confirmed. However, among men who read about a female manager, those who read about the manager interacting with a female subordinate seemed to be more likely to think that they themselves would be effective in handling the situation.

### Model's Effectiveness

The manager in the script was perceived as effective by 59% of the sample. Hypothesis 3 predicted that the model in the female manager/female subordinate situation would be rated more effective than the model in any of the other three model/subordinate situations. This hypothesis seems to have been partially confirmed among male respondents. Men who read about a woman manager tended to rate her as more effective when she was interacting with another woman. Among female respondents, on the other hand, the woman manager

seemed to be perceived as more effective when her subordinate was a man rather than a woman.

Among undergraduate level respondents, the male manager was significantly more likely to be perceived as effective than was the female manager ( $p = .05$ ). In addition, in general, respondents with an undergraduate education perceived the male manager as more effective than did respondents with some graduate schooling ( $p = .04$ ). In particular, as shown in Table 8, females with a BA or less were significantly more likely than female graduate students to rate the male manager as effective ( $p = .02$ ).

When the manager in the script was a woman, the difference in ratings between women with a BA or some college education versus those enrolled in graduate school was not significant. However, among men, there was a significant difference on the basis of education ( $p = .04$ ). Male graduate students perceived the female manager to be more effective in handling the task in the scenario.

#### Manager's Ability

More than half of the respondents (54%) perceived the manager as demonstrating high ability. The expectation of a main effect for manager gender as predicted in Hypothesis 4 was not supported. The male manager's performance was not more likely to be attributed to ability than was the female manager's performance.

**Table 8**  
**Effectiveness Ratings\*\* by Education by Manager and Respondent Gender**

	BA or less			Grad School			F	Sig
	<u>n</u>	<u>Mean</u>	<u>SD</u>	<u>n</u>	<u>Mean</u>	<u>SD</u>		
<b>Manager's effectiveness</b>								
<b><u>Male manager</u></b>							3.26	.02 (Fb:Fg)*
Male resp	24	3.58	1.44	47	3.32	1.16		
Female resp	35	3.91	1.12	63	3.14	1.22		
<b><u>Female manager</u></b>							1.65	.18
Male resp	20	2.90	1.41	52	3.60	1.19		
Female resp	36	3.53	1.30	63	3.37	1.20		

\* Fb= Female BA; Fg= Female Grad; Mb= Male BA; Mg= Male Grad

\*\* 5 point scales, 1= very ineffective; 5= very effective

Whereas among men, there was little difference in the perceptions of the undergraduate versus graduate group, among women, ratings varied on the basis of education. Those with a BA or less were significantly ( $p = .001$ ) more likely to rate the manager as demonstrating high ability than were those enrolled in graduate courses (see Table 7).

#### Non-Hypothesized Variable Relationships

Differences in responses within and across conditions and respondent subgroups were found for several of the dependent variables for which hypotheses were not proposed. For example, the MANOVA revealed that for two of the dependent variables -- task difficulty and manager's luck, there was a significant main effect for respondent gender and a significant interaction between respondent and subordinate gender.

#### Task Difficulty

Overall, approximately two-thirds (66%) of the respondents perceived the task presented in the script as difficult. White respondents rated the task as significantly more difficult than Asian respondents ( $p = .007$ ). Table 9 shows that women were significantly ( $p = .01$ ) more likely than men to rate the task as difficult. There was no difference in respondent's ratings of task difficulty when the manager's subordinate was a woman. However, there was a difference when

**Table 9**  
**Task Difficulty and Luck Ratings\* by Respondent Gender**

	Male Resp.			Female Resp.			F	Sig
	<u>n</u>	<u>Mean</u>	<u>SD</u>	<u>n</u>	<u>Mean</u>	<u>SD</u>		
<b><u>Task difficulty</u></b>	<b><u>144</u></b>	<b><u>3.42</u></b>	<b><u>0.94</u></b>	<b><u>199</u></b>	<b><u>3.68</u></b>	<b><u>0.89</u></b>	<b><u>6.54</u></b>	<b><u>.01</u></b>
Male subord.	75	3.35	0.97	98	3.81	0.87	10.78	.001
Female subord.	69	3.51	0.92	101	3.55	0.89	0.11	.74
BA or less	44	3.48	0.90	71	3.58	0.89	0.34	.56
Grad school	99	3.40	0.97	126	3.75	0.87	8.09	.005
Supervisor	47	3.30	0.93	53	3.75	0.94	5.95	.02
Non-supervisor	75	3.53	0.92	108	3.69	0.81	1.56	.21
<b><u>Manager's luck</u></b>	<b><u>144</u></b>	<b><u>3.15</u></b>	<b><u>0.70</u></b>	<b><u>196</u></b>	<b><u>3.37</u></b>	<b><u>0.75</u></b>	<b><u>7.17</u></b>	<b><u>.01</u></b>
Male subord.	75	3.27	0.68	96	3.27	0.72	0.00	.97
Female subord.	69	3.03	0.71	100	3.46	0.77	13.65	.0003

\* 5 point scales, 1= "low"; 5= "high"

the subordinate was a man -- females rated the task as significantly more difficult than did males ( $p = .001$ )

Although there were no significant differences in the task difficulty ratings of male versus female non-supervisors, there were gender differences among supervisors. Female supervisors rated the task as significantly more difficult than male supervisors ( $p = .02$ ), especially when the subordinate was a man. In addition, when the manager in the script was a woman, female supervisors were significantly ( $p = .02$ ) more likely than male supervisors to perceive the task as difficult.

Among respondents with an undergraduate education, there was not a significant difference between the task difficulty ratings of men versus women. However, a significant gender difference was found among graduate students ( $p = .005$ ). Females rated the task as difficult more often than males.

### Manager's Luck

In general, the majority of respondents (61%) perceived the manager in the script as neither lucky nor unlucky. However, a gender difference was found for this variable. Women rated the manager as significantly luckier than did men ( $p = .01$ ). In addition, there was an interaction effect between subordinate and subject gender. When the subordinate was female, the manager was rated significantly ( $p = .0003$ ) luckier by women than by men (see Table 9).

Ratings of the manager's luck also varied on the basis of supervisory status and education. Compared to supervisors, non-supervisors were significantly more likely to view the manager as lucky ( $p = .03$ ). Respondents in the BA or less group were significantly more likely to rate the manager as lucky than were respondents in the graduate school group ( $p = .000$ ). Specifically, women with a BA or less were the most likely to perceive the manager as lucky ( $p = .000$ ).

#### Manager's Effort

Overall, approximately half (51%) of the respondents perceived the manager as exerting high effort in accomplishing the task. As was found for the manager's ability and authority, the manager's effort was rated significantly higher by undergraduate respondents than by graduate school students ( $p = .003$ ). Table 10 shows that although there was little difference by education among male respondents' ratings, women with a BA or some college education rated the manager as exerting significantly higher effort than did women with some graduate education ( $p = .0002$ ).

Table 10

Effort and Recommendation Ratings\* by Respondent Education and Gender

	BA or less			Grad School			F	Sig
	<u>n</u>	<u>Mean</u>	<u>SD</u>	<u>n</u>	<u>Mean</u>	<u>SD</u>		
<u>Manager's effort</u>								
Male resp	44	3.43	1.07	99	3.39	1.03	0.04	.84
Female resp	71	3.75	0.99	126	3.15	1.09	14.44	.0002
<u>Recommendation of script</u>								
Male resp	44	3.50	1.07	99	3.45	1.05	0.06	.81
Female resp	70	3.86	0.98	125	3.30	1.06	13.33	.0003

\* 5 point scales, 1= "low"; 5= "high"

### Likelihood of Manager Repeating Behavior

Overall, 60% of respondents perceived the manager as likely to handle similar situations with other employees in the same way as he/she did in the script. Female supervisors however, differed from other respondents as follows:

- a) they were significantly more likely than female non-supervisors to predict that the manager would repeat the behaviors demonstrated in the scenario ( $p = .02$ )
- b) they were more likely than male supervisors to believe that the manager would approach situations with other employees in the same way as he/she had done in the script.

### Recommendation of Script

Sixty percent of the research participants recommended that the script be used for training managers. Although among males, recommendations were not affected by either education or supervisory status, they were for females. Women with a BA or less were significantly ( $p = .0003$ ) more likely than women enrolled in graduate school to recommend using the script (see Table 10). Female non-supervisors recommended the script as a training tool significantly more often than did female supervisors ( $p = .05$ ).

## Discussion

### Research Findings

One of the main assumptions of this study was that subjects would be more inclined to imitate same-sex models. However, neither men nor women were significantly more likely to indicate that they would imitate same-sex models. According to Bandura (1977), "the functional value of modeled behavior overrides the influence of either model or observer characteristics. The attributes of models exert greatest influence when it is unclear what consequences their behavior is likely to have" (pp. 89-90). Considering that the consequences of the model's behavior are fairly clear in the script (i.e., the subordinate will try to improve his/her performance) and that coaching a subordinate was perceived as a required and important behavior by the respondents, gender of the model may not have influenced the subjects' ratings of likelihood of imitation.

In addition, the fact that the task was perceived as neither masculine nor feminine by more than two-thirds of respondents, probably also accounts for the finding of no significant difference in likelihood of imitation. As Schunk (1987) points out, model sex does not influence subjects when the task is perceived as appropriate for both sexes.

That the situation in the script was perceived as requiring neither masculine nor feminine personality characteristics is understandable. Although the overall task of counseling a subordinate can be perceived as reflecting a

consideration style of leadership, which is usually attributed to women managers (Bartol & Butterfield, 1976), the individual steps involved can be interpreted as combining masculine and feminine characteristics. For example, the steps of stating the problem in behavioral terms, agreeing on steps that the manager and subordinate will take, and recording a specific follow-up date represent a task-oriented approach, which is perceived as being stereotypically masculine. On the other hand, the steps of trying to bring reasons into the open, asking for subordinate's suggestions, and listening openly, require interpersonal behaviors that are seen as stereotypically feminine.

Among graduate students, the view that the task was neither masculine nor feminine was supported by their rating the male and female manager similarly in terms of ability, authority, effort, and effectiveness. On the other hand, the labeling of the task as neither masculine nor feminine by respondents with a BA or some college education seems to stem more from a concern with appearing unbiased, than from a belief that men and women are equally suited for managerial positions. The male manager was perceived by the BA-level respondents as higher in authority and effectiveness than the female manager. This stereotypical view of a man as more competent than a woman was held by both men and women at the BA level and confirms previous research which has shown that the belief in traditional sex role stereotypes is stronger among individuals with less education (Deaux, 1985).

In general, the results of this study showed that the responses of male respondents were similar to those of female respondents. A few gender differences in reactions to the scripts, however, were found. Women were significantly more likely than men to view the task as difficult when the subordinate was a man, and the manager as lucky when the subordinate was a woman.

One possible explanation for these findings is that the respondents evaluated the situation not in terms of whether the manager was male or female, but rather in terms of their own personal expectations or experiences in such situations. As Shaver (1975) points out, "we generalize from our own circumstances, assuming that other people have about the same degree of control over their lives as we feel we have over our own" (p. 105).

When imagining themselves in the manager's role, male respondents probably did not expect that subordinate gender would make much of a difference, but female respondents probably did. Women may have anticipated resistance from a male subordinate because of the reversal of traditional roles in which the male usually occupies the higher position in the organization (Eagly, 1983). To confirm their expectation, they may have interpreted the male subordinate's behavior as being more aggressive and defensive, thus making the task more difficult. The female subordinate, on the other hand, may have been viewed as being more submissive and easily influenced, resulting in a luckier situation from the manager's point of view.

Another difference in perceptions of male and female respondents in this study was that the female manager tended to be rated as more effective by women when interacting with a male subordinate, and by men when interacting with a female subordinate. These opposite views of the female manager's performance can probably be attributed to differences in the frames of reference that males versus females used in making their judgements. It seems that women evaluated the female manager's effectiveness on the basis of perceived task difficulty. Considering that they viewed the task as more difficult when the subordinate was male, and the manager succeeded at the task, they rated her as more effective in that situation. Male respondents on the other hand, seem to have judged the female manager's performance on the basis of role expectations -- supervisors are usually men and subordinates are usually women. A woman supervising another woman is less inconsistent with these expectations than is the situation in which a woman is supervising a man. As a result, the female manager was rated as more effective when interacting with another woman. This finding is consistent with previous research which has shown that women are evaluated more positively when supervising other women (Rose & Andiappan, 1978).

The results of this research included two other overall gender differences:

- 1) Men perceived themselves as similar to the male manager more often than did women, a finding which approached significance and partially confirmed the assumption of this study that individuals would perceive themselves as more similar to same-sex models.
- 2) Men who read the male manager/male

subordinate script were most likely to rate the task masculine and women who read the female manager/female subordinate script were most likely to rate the task feminine. This can be interpreted in terms of gender role theory (Deaux, 1985). According to the theory, individuals differ in their tendency to use gender as a organizing principle, such that people who are highly sex-typed (masculine males and feminine females) are more likely to process information and to make distinctions on the basis of gender than are other people.

Other findings of interest in this study revealed that the extent to which model, subordinate, and participant gender influenced ratings was determined in large part by demographic characteristics of the respondent. For example, the interaction of respondent gender and supervisory status accounted for some differences in responses. Male supervisors were more likely to indicate that they would imitate the model's behavior (regardless of the model's gender). Female supervisors were significantly more likely to believe that the task was difficult and that their handling it well was important when the subordinate was male. They also perceived the task as more difficult for the female manager.

The differences in the responses of the male versus female supervisors are probably due to differences in their job situations. As has been found in past research (Phelan et al., 1993), the male supervisors in the present study may have supervised more employees than the female supervisors. As a result of having more opportunities to conduct performance discussions with subordinates, the male supervisors may have found it easier to evaluate how likely they would be to

handle the situation in the same way as the manager in the script. They simply compared the manager's behavior to their own past behaviors and concluded that the manager responded to the situation in the same way as they have consistently in the past and plan to again in the future. Female supervisors, on the other hand, because of less experience in similar situations, may not yet have identified a pattern in their own behavior against which to compare the behavior of the manager in the script.

The job situations of the male versus female supervisors in this sample may also have differed in terms of stresses experienced. As Offermann & Armitage (1993) point out, although both male and female managers experience on-the-job stress, there are additional stresses that are uniquely experienced by women managers. "The common stressors shared by men and women managers alike include role demands (conflict, ambiguity, and overload), work overload, interpersonal relations on the job, and extraorganizational conflicts" (p. 132). Two stress factors that are uniquely experienced by women managers are attitudes toward women in management (i.e., sex role stereotypes) that result in discrimination and sexual harassment. In addition, compared to men managers, women managers receive less support from their supervisors, and they occupy lower-level positions with less authority and less pay.

The combination of sex-role stereotypes and lower supervisor support may explain the task difficulty and importance ratings of the female supervisors in this study. Due to the fact that the female supervisors perceived the female manager

in the script as similar to themselves, they probably rated the task as more difficult for her because they believed that the task would be more difficult for them than for their males colleagues.

Considering that the female versus male supervisors' ratings of self-expectations of effectiveness were not significantly different, the women's ratings of task difficulty and importance may, in part (or possibly totally), stem from perceived difficulty in their receiving recognition of their successful handling of the situation. As a result of lower supervisor support in general, the probability that their supervisor is a man, and the fact that their supervising a man is a reversal of traditional sex-role stereotypes, the women probably perceived it as more difficult and important to "prove" that they can handle the situation effectively. As Denmark (1993) points out, "the female manager must often contend with an initial negative evaluation once she has intruded upon a traditionally masculine domain or has adopted a typically masculine leadership style. To compensate for such negative evaluations, female leaders may feel compelled to work harder to gain acceptance and to gain advantages, such as pay raises and promotions" (p. 347).

Respondents' level of education is another demographic characteristic which affected perceptions in this study, especially among women. Overall, compared to women with some graduate education, women with an undergraduate education were significantly more positive in their evaluations of the manager in the script and were more favorably inclined toward imitating the

model and using the script for managerial training. They perceived the manager as possessing higher ability and authority, as exerting higher effort, and as being more effective.

Considering that few differences were found between undergraduate versus graduate educated men, more than just education level probably accounts for the differences between the responses of the two groups of women. Powell's (1988) summary of his research raises one possible explanation. In his studies, descriptions of the "good" manager agreed with the masculine stereotype. In addition, both undergraduate and graduate men saw themselves as higher in masculinity and lower in femininity. Among women, on the other hand, undergraduates described themselves as higher in femininity, while graduate women saw themselves as more masculine and less feminine. "The undergraduate women who least fit the stereotype of a good manager may be diverted from the pursuit of managerial careers. Women who most fit the stereotype may be the ones who apply for admission to graduate business programs. They may also be the ones who are most likely to be accepted by the programs" (Powell, 1988, p. 150).

Although the differences in perceptions between the two groups of women in the current study were generally evident across all four manager/subordinate situations, the widest gaps in perceptions seemed to occur among those who read the male manager/female subordinate script (the traditional situation in organizations). Compared to undergraduate women, graduate women rated the

male manager whose subordinate was a woman lower in ability ( $p = .02$ ), authority ( $p = .03$ ), effort ( $p = .01$ ), and effectiveness ( $p = .07$ ). These research results tend to confirm previous findings that sex role stereotyping is stronger among those with less education (Deaux, 1985).

Another possible explanation for this difference by education in women's responses is that discrimination against female managers in the workplace was probably a more salient issue for those women enrolled in graduate school than it was for those with an undergraduate education. Considering that, compared to the BA or less group, a larger percentage of the graduate group of women were supervisors, they were probably more aware through first-hand experience of the stress that accompanies being a woman manager. As Davidson & Cooper (1992) point out:

The specific problems and pressures which have been isolated as being unique to female managers include: strains of coping with prejudice and sex stereotyping; overt and indirect discrimination from fellow employees, employers and the organizational structure and climate; lack of role models and feelings of isolation; and burdens of coping with the role of the 'token woman'. (p. 32)

An informal survey reported by Sullivan & Buttner (1992) seems to lend some credibility to the theory that graduate and undergraduate women differ in their awareness of discrimination against women in organizations. Among students in an undergraduate introduction to management course, almost 90% believed that sex discrimination rarely occurs in the workplace, and none had personally experienced discrimination. In an MBA class, on the other hand, the

women in the class believed that sex discrimination frequently occurs, and 50% had themselves experienced such discrimination.

In this study, if the negative effects of sex-role stereotyping was a more salient issue for female graduate students, they may have consciously or unconsciously assigned their lowest ratings to the male manager/female subordinate script in order to demonstrate their rejection of traditional stereotypes. "The whole exchange came across as rather superficial and paternalistic," is the way one woman summed up her impressions of the male manager/female subordinate script. Another woman offered the following suggestion, "Why not have Joan and Andrew reverse roles -- female supervisor, male worker -- different response!"

For the women enrolled in graduate courses, awareness of the traditional stereotype may have been heightened by the situation in which the experiment was conducted. The vast majority of the graduate women (106 out of 126) responded to the questionnaire in the presence of an older male instructor who was the authority figure in the situation, while the female experimenter occupied a subordinate role in which she needed his assistance in obtaining research subjects.

The experimenter's gender, apart from its interaction with the gender of the instructor, may also have influenced the graduate women's perceptions. They may have reacted more negatively to the male manager/female subordinate script precisely because it was written by a woman (the experimenter). They had no way of knowing that there were different versions of the script in which the

manager and subordinate's genders were varied. Therefore, these women may have been angry/disappointed that a woman similar to themselves in age, race, and education chose to use a script that showed the stereotypical situation in which the manager was a man and the subordinate was a woman. This possibility is raised by the following comment written by one woman who read the male manager/female subordinate script (and rated the manager as ineffective):

I believe question number 12 used stereotypical language. There is no defined masculine or feminine characteristics. When men were leaders in education these terms were developed. I would have assumed that a woman in the 90's would have defined the characteristics she was looking for and not used out-dated terminology. In the 90's it is referred to as the alpha and omega personality.

As part of the hypothesis that female graduate students are more likely to reject the traditional stereotype, it would be expected that they would consequently rate the female manager higher than the male manager. There is some support for this prediction. Women enrolled in graduate school rated the female manager whose subordinate was a man significantly more effective than the male manager whose subordinate was a woman ( $p = .02$ ).

In addition to the interaction of gender and education and supervisory status, the results of this study seem to indicate that race of the respondent in part determines perceptions of the script. For example, two significant differences were found between White and Asian respondents. Asians were less likely to think that they would be expected to handle the situation. This response reflects a realistic assessment of the current situation in corporate America. Asians hold

proportionally fewer positions in management than Whites (Morrison & Von Glinow, 1990).

Asian respondents also tended to rate the task in the script as easier than did White respondents. This finding is probably due to the fact that the Asians in the sample were less likely to be supervisors and more likely to be unemployed than were the Whites. Due to their having less experience (either as a manager or as a subordinate) in situations such as the one depicted in the script, Asians probably underestimated its difficulty. Considering that the employee in the script does not offer much resistance and agrees to change his/her behavior, they may have assumed that other employees would behave similarly.

### Research Design

Various aspects of the design and execution of this research study should be taken into consideration when drawing conclusions from the results and evaluating the generalizability of the findings. Due to practical considerations (e.g., the amount of their time that subjects would be willing to volunteer to participate, the quantity of information respondents could reasonably be expected to process in a relatively short period of time, etc.), only a limited amount of information could be included in the script and tapped by the questionnaire.

For example, the questionnaire asked for participants' assessments of the manager's performance in terms of four causes -- ability, effort, luck, and task difficulty, but did not also measure subjects' causal attributions for the

subordinate's behavior. Respondents' perceptions of the subordinate's behavior probably played a considerable role in their views of the appropriateness of the manager's reactions in the script. Gathering data about participants' perceptions of the subordinate would have aided in interpreting this study's findings.

As Dugan (1989) points out, research indicates that a manager's behavior toward a subordinate differs depending on the manager's perception of the cause of a subordinate's poor performance. Managers choose more punitive actions when they attribute a subordinate's poor performance to an internal rather than external cause.

In the current study, among participants who disagreed with the manager's handling of the situation, there is some indication that perceptions of the subordinate were mixed and affected how the manager was evaluated. Whereas some respondents' written comments expressed the opinion that the subordinate was responsible for his/her behavior, other subjects' comments indicated that the subordinate was perceived to have less control over his/her poor performance. In the former case, the manager was evaluated as not being strict enough, while in the latter, he/she was viewed as too harsh. These differing points of view are represented in the following two comments:

Ann should've pressed a bit harder on John -- pursue a bit more in depth on the problems. John's answers are just excuses: a broken down car is not a good enough reason to miss appointments with clients. There are probably other reasons for the decline in his performance. Both Ann's questions and John's answers are just a routine that John probably has heard before and knows all the answers the manager wants to hear . . .

Manager needs to realistically investigate/evaluate reasons why John has so little time. Has his area become too large to handle alone? Does he need assistance? Full-time assistance or part-time assistance? . . . Manager seems to be placing more stress on an already stressed out employee! . . .

In addition to not containing items measuring respondents' causal attributions for the subordinate's behavior, the questionnaire did not include any questions assessing the extent of the respondents' supervisory experience. Respondents who were supervisors were asked only to indicate whether they were first-line or second-line supervisors. Information about such things as the number of employees supervised and number of years of experience as a supervisor might have aided in interpreting the few differences in responses that were found between male and female supervisors in this study. In addition, collecting data about whether supervisors worked in staff support versus line departments might also have provided valuable information. As Ragins and Sundstrom (1989) point out, an individual's power in an organization depends in part upon the amount of power held by his/her department. Staff support departments have less power than production departments, and there is evidence that women are disproportionately employed in staff departments.

Other limitations of the script and questionnaire can be pointed out. Although in the script, it appears that the subordinate intends to change his/her behavior, respondents are not provided with any concrete information that the subordinate's performance did in fact improve. Directly asking subjects whether they believed the subordinate's performance will improve would have provided

further information about the standards that respondents used in evaluating the manager's handling of the situation.

Asking respondents to indicate what they perceived as the manager's purpose in the situation would have addressed the possibility that they did not view it as counseling. There is a range of possible descriptions (e.g., confronting, giving feedback, etc.) that could be applied the task, each of which has associated with it certain expectations about what types of behaviors should be demonstrated by the manager.

The fact that the dependent variables were each measured using a one-item scale is another limitation of the questionnaire. As Cook & Campbell (1979) point out, "since single operations both underrepresent constructs and contain irrelevancies, construct validity will be lower . . ." (p. 65). For example, the construct of intentions to imitate the model's behavior was underrepresented by the fact that expectations about the likelihood of being rewarded for such behavior were not measured. Similarly, instead of using a unidimensional bipolar scale, a better measure of perceived sex-typing of the task would have included separate scales assessing masculine and feminine characteristics. Past research using such scales has shown that the two are orthogonal to each other (Deaux, 1985).

The fact that all the dependent variables were measured using the same method (i.e., paper and pencil) is another limitation. "When . . . all the measures use the same means of recording responses, then the method is itself an

irrelevancy whose influence cannot be dissociated from the influence of the target construct" (Cook & Campbell, 1979, p. 66).

Asking subjects to evaluate written descriptions of managerial behavior rather than videotaped interactions between managers and subordinates is a limitation in the research design of this study. The gender of the manager and subordinate is more salient in videotapes and videotapes are usually included in behavior modeling training classes in organizations. In addition, the fact that the respondents' behavior was not observed is another limitation. Rather, participants were asked to report how they planned to behave. Unfortunately, behavioral intentions do not always accurately reflect subsequent behavior.

Characteristics of the research sample may also limit generalizability of the results. The sample was drawn from a narrow geographic area and consisted mostly of graduate students who were under 30 years old. In addition, there were differences in the racial composition of the undergraduate and graduate subsamples. The majority of the graduate group was White (62%) and Asian (25%). The undergraduate group was more ethnically diverse -- 32% White, 18% Black, 25% Hispanic, and 20% Asian. Therefore, although differences between the BA level and graduate level groups are most likely due to differences in education, differences in race can not be ruled out as another contributing factor. It is also possible that differences among various subgroups of respondents in income and socioeconomic status (two variables which were not measured in this study) may have had an effect on the findings.

Considering that the vast majority of the respondents were either non-supervisors or first-line supervisors, the results probably cannot be generalized beyond lower-level managers. Schlueter, Barge & Blankenship's (1990) results indicate that the strategies for influencing subordinates that are seen as appropriate by lower-level managers differ from those judged as appropriate by upper-level managers. As a result, if upper-level managers were asked to read the modeling scripts that were used in this study, the results probably would have been different. Schlueter et al. (1990) found that, for motivating a subordinate to report to work on time, lower-level managers relied more on punishment-based strategies, while upper-level managers relied more on rational-based strategies.

Although the generalizability of the results is limited to some extent, there are strengths in the design and execution of this study that can be pointed out. Subjects were randomly assigned to conditions, with approximately 50% of the sample reading about same-sex models and 50% of the sample reading about opposite-sex models. Another strength is that sex of model and sex of subordinate were the only two variables upon which the four modeling scripts differed. In addition, the scripts depicted a situation which subjects perceived as relevant and important to their careers.

A strength of the research sample is that not only were the vast majority of the participants employed, but more than half of them held full-time jobs. Lack of subject motivation did not seem to be an issue in this study. Participants appeared to be involved in the task. Except for a few scattered pieces of missing

data, usually on the demographic items (either because they ran out of time or because they chose not to provide selected pieces of information about themselves) respondents answered all the items on the questionnaire. In addition, almost a third of the participants took the time to write additional comments about the script and questionnaire.

### Conclusion

The main prediction of this research was that the gender of the model, the model's subordinate, and the participant would affect respondents' perceptions and behavior intentions. The results of this study offer confirmation of this assumption and show that perceptions are influenced by demographic characteristics of the respondents, such as supervisory status and education.

The research findings of this study seem to indicate that the inclusion of female models in managerial training programs would facilitate the learning process for graduate educated women. In particular, scenarios in which a female manager is shown effectively interacting with a male subordinate should be used.

Although it seems that exposure to female models would be most beneficial for graduate level women, there is no reason why all participants in managerial training courses should not be exposed to female models. Both male and female models were perceived as capable and effective among undergraduate

as well as graduate men and women. In addition, respondents' ratings indicated that the likelihood of their imitating male and female models was relatively equal.

Considering the fact that women hold 47% of managerial jobs (Noble, 1993), the portrayal of men and women as managers in training videos would reflect this reality. In addition, not showing women as managers perpetuates the stereotypical belief that men are better suited for management positions than women. On the other hand, the use of both men and women as models implicitly conveys the message that the role of manager is equally appropriate for men and women.

Further research into the topic of gender and modeling of managerial behavior should be conducted. Issues that were addressed in this study, as well as many others that were not addressed, need to be investigated. Whereas the present study looked at the variables of respondent gender, model's gender, and model's subordinate's gender in terms of self-reports of intention to imitate, the effects of these variables on actual behavior should also be studied. The following questions need to be answered: Will subjects actually imitate the behavior of both male and female models equally, as they claim they will, or do they prefer one type of model over the other? If they do show a preference, what is the basis for it?

Considering that this study looked at only one managerial behavior -- counseling a subordinate, more extensive research is called for. Future studies need to investigate whether the effects of respondent gender, model gender, and

model's subordinate's gender depend upon the specific behavior to be modeled. Behaviors such as delegating responsibility, handling employee complaints, and overcoming resistance to change could be studied.

Although this study acknowledged the probable relationship between modeling and self-efficacy beliefs, by asking subjects to rate how effective they thought they would be if they behaved the same as the model, it did not adequately explore the issue. Various studies have shown the importance of examining the role that initial self-efficacy plays in subsequent performance in training (Gist, Schwoerer, & Rosen, 1989; Gist, Stevens, & Bavetta 1991). Two research questions that future studies could look at are: (1) is one type of trainee (male or female) more likely to have higher self-efficacy expectations before training?; (2) does exposure to a same-sex model raise efficacy expectations more than exposure to an opposite-sex model?

An interesting finding from this study that should be investigated further, is that among the small percentage of respondents who perceived the manager in the script as ineffective, those who read about a female manager, rather than a male manager, were significantly ( $p = .01$ ) more likely to think that they themselves would be effective in the situation. Considering the small sample size in this group, no meaningful analysis could be conducted to determine whether this opinion was shared equally by women and men. Future research should address this question: Do both men and women think they can handle the

situation better than an ineffective female manager? In addition, the issue of whether subordinate gender influences this perception should also be examined.

The differences found between women with a BA or some college education and women in graduate school demonstrate the importance of examining within-sex differences. As Freedman & Phillips (1988) point out, organizational researchers need to focus more attention on "the substantial proportions of within-sex variance that has been frequently been viewed as 'error variance' in many existing studies" (p. 244). Similarly, Alvesson & Billing (1992) advocate investigating individual differences, rather than treating men and women as homogenous groups in organizational studies.

Thus, future research into the topic of gender and modeling should compare not only the general responses of men versus women, but also look at the variation in the reactions of subgroups within each gender on the basis of such variables as supervisory status, education, social class, and race. In particular, potential similarities and differences between and within various racial groups should be investigated. Although some of the sample sizes were too small to conduct any meaningful analyses, there is some indication from the data that there were similarities as well as differences on the basis of education and gender among Asian and White respondents. For example, self-expectations of effectiveness seemed to be influenced by race, gender, and education. Among undergraduates, the self-expectations of effectiveness ratings of White men and women were similar to each other, and were higher than those of Asian men and

women. In addition, undergraduate Asian women were more likely to expect they would be effective than were undergraduate Asian men. Within the graduate student group, on the other hand, there was little difference between the expectations of Asian men, Asian women, and White men. White women, however, had lower self-expectations of effectiveness than the other three groups of respondents.

## Appendix

### Sample Modeling Script and Questionnaire

**Instructions:** Below is a script for a videotape that is being considered for inclusion in a managerial training program. After reading the script, please answer the questions on pages 4-8.

**Setting:** The scene takes place in the office of Ann, the manager of the Sales Department. The purpose of the meeting is to discuss the job performance of John, one of the salespeople whom Ann supervises.

**Ann:** Come in. Have a seat. There are some things I think we need to talk over.

**John:** Sure, what's up?

**Ann:** Well, John the problem is that your performance is way below what it used to be. For example, you remember when I made calls with you last month?

**John:** Yes.

**Ann:** I mentioned that you didn't seem to be anticipating customers' needs. There were a couple of opportunities for sales we would have missed if I hadn't spoken up.

**John:** It was just one of those hectic days and I think my reactions were a little slow. I mean I'd have gotten around to making those suggestions. You just mentioned them first. That's all.

**Ann:** But, there's been a continued decline in your sales for the past several months. And although you agreed to get your sales reports in on time, three of the last four have been late, plus you haven't developed a single new account in the last quarter.

**John:** I guess sooner or later I was bound to run out of steam.

**Ann:** I ran into two of your customers from Omega while I was at lunch yesterday. They told me you missed your appointment last week and you've been as much as an hour late at other times over the last few months. They feel you're disinterested in their needs. To be perfectly honest, I'm baffled by what's happening.

**John:** I meant to tell you about the missed appointment. I just haven't had the time. This is the first day I've been in the office since it happened. You see, I've been having some trouble with my car.

**Ann:** That can be a hassle. Has it been taken care of?

**John:** Well, I'm going to take it in tonight, if I can get an appointment.

**Ann:** Okay. And what about your declining sales and lack of new accounts?

**John:** I just haven't had the time for those. I have a huge territory and I really have to push to keep up.

**Ann:** I realize you feel under pressure. You know, if you were inexperienced, I'd say you needed direction in setting up your call plans and handling accounts. But, we're talking about things you've done well for years and it's hard to understand why there's a problem now. I don't have to tell you that if we don't maintain good relations with our customers, we're going to lose them.

**John:** I know.

Ann: I'm concerned that you're not handling your territory as successfully as you have in the past. The situation's got to change.

John: I understand and I'll turn it around.

Ann: Well, what do you think you can do to turn it around?

John: Right off, I'll call those customers at Omega I stood up and smooth it over. I know I should have called right away but, anyway, I'll apologize and stop over to see them as soon as possible. Then, I'm going to push harder I guess and pay more attention to accounts like you suggested, anticipate needs.

Ann: Those are good ideas. Is there anything else?

John: Well, get my car fixed of course.

Ann: I know you can manage your job well, John. You've proven that in the past. That's why I want to see the problem solved. As you said, getting your car fixed is important and that can be taken care of right away. Phoning customers and apologizing is a good idea too. And when you make appointments you'll be sure to be prompt.

John: Right.

Ann: I want you to know that I'm concerned about you and want to help. Let's meet again next Tuesday at this time.

John: Okay. I'll put it on my calendar.

**Instructions:** Below are some questions about the script you read. Please circle the letter for the response choice that comes closest to your opinion.

1. Do you recommend that this script be used for training managers?

Definitely recommend	Probably recommend	Not sure	Probably do <u>not</u> recommend	Definitely do <u>not</u> recommend
A	B	C	D	E

2. If you had to handle a situation similar to the one in the script, how likely would you be to handle it in the same way as the manager in the script?

Very likely	Somewhat likely	Not sure	Somewhat unlikely	Very unlikely
A	B	C	D	E

3. If you had to handle a situation similar to the one in the script, overall, how effective do you think you would be if you handled it in the same way as the manager in the script?

Very ineffective	Somewhat ineffective	Neither effective nor ineffective	Somewhat effective	Very effective
A	B	C	D	E

4. Overall, how likely do you think it would be that the manager would handle the situation in a similar way with other employees whom she supervises?

Very likely	Somewhat likely	Not sure	Somewhat unlikely	Very unlikely
----------------	--------------------	-------------	----------------------	------------------

A	B	C	D	E
---	---	---	---	---

5. Overall, how effective do you think the manager in the script was in handling the situation?

Very ineffective	Somewhat ineffective	Neither effective nor ineffective	Somewhat effective	Very effective
---------------------	-------------------------	---	-----------------------	-------------------

A	B	C	D	E
---	---	---	---	---

6. Compared to other people at her level, how much authority do you think the manager in the script has?

Much less authority	Moderately less authority	About the same authority	Moderately more authority	Much more authority
---------------------------	---------------------------------	--------------------------------	---------------------------------	---------------------------

A	B	C	D	E
---	---	---	---	---

7. How similar to yourself is the manager in the script?

Very similar	Somewhat similar	Neither similar nor dissimilar	Somewhat dissimilar	Very dissimilar
-----------------	---------------------	--------------------------------------	------------------------	--------------------

A	B	C	D	E
---	---	---	---	---

8. How likely is it that sometime in your career, you will be expected to handle situations similar to the one in the script?

Very likely	Somewhat likely	Not sure	Somewhat unlikely	Very unlikely
-------------	-----------------	----------	-------------------	---------------

A	B	C	D	E
---	---	---	---	---

9. How important would it be in your career for you to do well handling situations similar to the one in the script?

Very important	Moderately important	Neither important nor unimportant	Moderately unimportant	Very unimportant
----------------	----------------------	-----------------------------------	------------------------	------------------

A	B	C	D	E
---	---	---	---	---

10. How much ability do you think the manager demonstrated in handling the situation in the script?

Very low ability	Somewhat low ability	Neither low nor high ability	Somewhat high ability	Very high ability
------------------	----------------------	------------------------------	-----------------------	-------------------

A	B	C	D	E
---	---	---	---	---

11. How much effort do you think the manager put into handling the situation in the script?

Very low effort	Somewhat low effort	Neither low nor high effort	Somewhat high effort	Very high effort
-----------------	---------------------	-----------------------------	----------------------	------------------

A	B	C	D	E
---	---	---	---	---

12. The personality characteristics required for a manager to effectively handle the situation in the script are:

Very masculine	Moderately masculine	Neither masculine nor feminine	Moderately feminine	Very feminine
A	B	C	D	E

13. How easy or difficult would you rate the manager's task in the script?

Very easy	Somewhat easy	Neither easy nor difficult	Somewhat difficult	Very difficult
A	B	C	D	E

14. How would you describe how the situation in the script turned out?

Manager was very lucky	Manager was somewhat lucky	Manager was neither lucky nor unlucky	Manager was somewhat unlucky	Manager was very unlucky
A	B	C	D	E

15. Do you have any additional comments about the script and/or questionnaire?

**Instructions:** For each question, please place a "X" next to the one response choice that best describes you.

1. What is your sex?

Male

Female

2. What is your age?

Under 20 years of age

20-24 years old

25-29 years old

30-39 years old

40-49 years old

50 years or over

3. What is your highest level of education?

Some high school

High school graduate

Some college

Associate's degree

Bachelor's degree

Some graduate school

Graduate degree

4. What is your ethnic origin?

- White
- Black
- Hispanic
- Asian/Pacific Islander
- American Indian/Alaskan Native

5. What is your employment status?

- Part-time (less than 35 hours a week)
- Full-time (35 hours or more a week)
- Not employed

6. What is your supervisory status?

- Not employed
- Non-supervisor
- First-line supervisor (supervisor of non-supervisors)
- Second-line supervisor (supervisor of other supervisors)

## References

- Alvesson, M., & Billing, Y.D. (1992). Gender and organization: Towards a differentiated understanding. Organization Studies, *13*(1), 73-102.
- Baldwin, T.T. (1992). Effects of alternate modeling strategies on outcomes of interpersonal-skill training. Journal of Applied Psychology, *77*(2), 147-154.
- Bandura, A. (1977). Social learning theory. Englewood Cliffs, NJ: Prentice-Hall.
- Bartol, K.M., & Butterfield, D.A. (1976). Sex effects in evaluating leaders. Journal of Applied Psychology, *61*, 446-454.
- Brenner, O.C., Tomkiewicz, J., & Schein, V.E. (1989). The relationship between sex role stereotypes and requisite management characteristics revisited. Academy of Management Journal, *32*(3), 662-669.
- Burnaska, R.F. (1976). The effects of behavior modeling upon managers' behavior and employee perceptions. Personnel Psychology, *29*, 329-335.
- Byham, W.C., Adams, D., & Kiggins, A. (1976). Transfer of modeling training to the job. Personnel Psychology, *29*, 345-349.
- Cook, T.D., & Campbell, D.T. (1979). Quasi-experimentation: Design and analysis issues for field settings. Boston: Houghton Mifflin.
- Davidson, M.J., & Cooper, C.L. (1992). Shattering the glass ceiling: The woman manager. London: Paul Chapman Publishing.
- Deaux, K. (1984). From individual differences to social categories: Analysis of a decade's research on gender. American Psychologist, *39*(2), 105-116.
- Deaux, K. (1985). Sex and gender. Annual Review of Psychology, *36*, 49-81.
- Deaux, K., & Major, B. (1987). Putting gender into context: An interactive model of gender-related behavior. Psychological Review, *94*(3), 369-389.
- Decker, P.J. (1982). The enhancement of behavior modeling training of supervisory skills by the inclusion of retention processes. Personnel Psychology, *35*, 323-332.

- Decker, P.J. (1983). The effects of rehearsal group size and video feedback in behavior modeling training. Personnel Psychology, 36, 763-773.
- Decker, P.J. (1984). Effects of different symbolic coding stimuli in behavior modeling training. Personnel Psychology, 37, 711-720.
- Decker, P.J., & Nathan, B.R. (1985). Behavior modeling training: Principles and applications. New York: Praeger Publishers.
- Denmark, F.L. (1993). Women, leadership, and empowerment. Psychology of Women Quarterly, 17, 343-356.
- Dugan, K.W. (1989). Ability and effort attributions: Do they affect how managers communicate performance feedback information? Academy of Management Journal, 32(1), 87-114.
- Eagly, A.H. (1983). Gender and social influence: A social psychological analysis. American Psychologist, 38(9), 971-981.
- Eagly, A.H., & Steffen, V.J. (1984). Gender stereotypes stem from the distribution of women and men into social roles. Journal of Personality and Social Psychology, 46(4), 735-754.
- Eagly, A.H., Makhijani, M.G., & Klonsky, B.G. (1992). Gender and the evaluation of leaders: A meta-analysis. Psychological Bulletin, 111(1), 3-22.
- Filipczak, B. (1992). What employers teach. Training, 29(10), 43-55.
- Freedman, S.M., & Phillips, J.S. (1988). The changing nature of research on women at work. Journal of Management, 14(2), 231-251.
- Frieze, I.H., Fisher, J.R., Hanusa, B.H., McHugh, M.C., & Valle, V.A. (1978). Attributions of the causes of success and failure as internal and external barriers to achievement. In J.L. Sherman & F.L. Denmark (Eds.), The psychology of women: Future directions in research (pp. 519-552). New York: Psychological Dimensions.
- Garland, H. & Price, K.H. (1977). Attitudes toward women in management and attributions for their success and failure in a managerial position. Journal of Applied Psychology, 62(1), 29-33.
- Garland, H., Hale, K.F., & Burnson, M. (1982). Attributions for the success and failure of female managers: A replication and extension. Psychology of Women Quarterly, 7(2), 155-162.

- Geis, F.L., Boston, M.B., & Hoffman, N. (1985). Sex of authority role models and achievement by men and women: Leadership performance and recognition, Journal of Personality and Social Psychology, 49(3), 636-653.
- Gist, M.E., Schwoerer, C., & Rosen, B. (1989). Effects of alternate training methods on self-efficacy and performance in computer software training. Journal of Applied Psychology, 74(6), 884-891.
- Gist, M.E., Stevens, C.K., & Bavetta, A.G. (1991). Effects of self-efficacy and post training intervention on the acquisition and maintenance of complex interpersonal skills. Personnel Psychology, 44(4), 837-861.
- Goldstein, A.P., & Sorcher, M. (1973). Changing managerial behavior by applied learning techniques. Training and Development Journal, 27(3), 36-39.
- Goldstein, A.P., & Sorcher, M. (1974). Changing supervisor behavior. New York: Pergamon Press.
- Heilman, M.E., Block, C.J., Martell, R.F., & Simon, M.C. (1989). Has anything changed? Current characterizations of men, women, and managers. Journal of Applied Psychology, 74(6), 935-942.
- Heilman, M.E., & Stopeck, M.H. (1985). Attractiveness and corporate success: Different causal attributions for males and females. Journal of Applied Psychology, 70(2), 379-388.
- Hultman, K.E. (1986). Behavior modeling for results. Training and Development Journal, 40(12), 60-63.
- Izraeli, D.N., & Izraeli, D. (1985). Sex effects in evaluating leaders: A replication study. Journal of Applied Psychology, 70(3), 540-546.
- Jacobson, M.B., Antonelli, J., Winning, P.U., & Opeil, D. (1977). Women as authority figures: The use and nonuse of authority. Sex Roles, 3(4), 365-375.
- Jago, A.G., & Vroom, V.H. (1982). Sex differences in the incidence and evaluation of participative leader behavior. Journal of Applied Psychology, 67(6), 776-783.
- Latham, G.P., & Saari, L.M. (1979). Application of social-learning theory to training supervisors through behavior modeling. Journal of Applied Psychology, 64(3), 239-246.

- L'Heureux-Barrett, T., & Barnes-Farrell, J.L. (1991). Overcoming gender bias in reward allocation. Psychology of Women Quarterly, *15*(1), 127-139.
- Mai-Dalton, R.R., Feldman-Summers, S., & Mitchell, T.R. (1979). Effect of employee gender and behavioral style on the evaluations of male and female banking executives. Journal of Applied Psychology, *64*(2), 221-226.
- Mann, R.B., & Decker, P.J. (1984). The effects of key behavior distinctiveness on generalization and recall in behavior modeling training. Academy of Management Journal, *27*(4), 900-910.
- Morrison, A.M. & Von Glinow, M.A. (1990). Women and minorities in management. American Psychologist, *45*(2), 200-208.
- Moses, J.L., & Ritchie, R.J. (1976). Supervisory relations training: A behavioral evaluation of a behavior modeling program. Personnel Psychology, *29*, 337-343.
- Nieva, V.F., & Gutek, B.A. (1980). Sex effects on evaluation. Academy of Management Review, *5*(2), 267-276.
- Noble, B.P. (1993, August 8). The new equality in hard times. New York Times, p. 25.
- Offermann, L.R. (1986). Visibility and evaluation of female and male leaders. Sex Roles, *14*(9/10), 533-543.
- Offermann, L.R., & Armitage, M.A. (1993). Stress and the woman manager: Sources, health outcomes, and interventions. In E.A. Fagenson (Ed.), Women in management: Trends, issues, and challenges in managerial diversity (pp. 131-161). Newbury Park, CA: Sage Publications.
- Peters, L.H., Terborg, J.R., & Taynor, J. (1974). Women as managers scale: A measure of attitudes toward women in management positions. JSAS Catalog of Selected Documents in Psychology, *4*, 27. (Ms. No. 585)
- Phelan, J., Bromet, E.J., Schwartz, J.E., Dew, M.A., & Curtis, E.C. (1993). The work environments of male and female professionals. Work and Occupations, *20*(1), 68-89.
- Powell, G.N. (1988). Women and men in management. Newbury Park, CA: Sage Publications

- Ragins, B.R., & Sundstrom, E. (1989). Gender and power in organizations: A longitudinal perspective. Psychological Bulletin, 105(1), 51-88.
- Robinson, S.E., Froehle, T.C., & Kurpius, D.J. (1979). Effects of sex of model and media of presentation on skill development of counselor trainees. Journal of Counseling Psychology, 26(1), 74-80.
- Rose, G.L., & Andiappan, P. (1978). Sex effects on managerial hiring decisions. Academy of Management Journal, 21(1), 104-112.
- Rosen, B., & Jerdee, T.H. (1974). Influence of sex role stereotypes on personnel decisions. Journal of Applied Psychology, 59(1), 9-14.
- Ross, M., & Fletcher, G.J.O. (1985). Attribution and social perception. In G. Lindzey & E. Aronson (Eds.), The handbook of social psychology, Volume II (pp. 73-122). New York: Random House.
- Russell, J.S., Wexley, K.N., & Hunter, J.E. (1984). Questioning the effectiveness of behavior modeling training in an industrial setting. Personnel Psychology, 37, 465-481.
- Schein, V.E. (1973). The relationship between sex role stereotypes and requisite management characteristics. Journal of Applied Psychology, 57, 95-100.
- Schlueter, D.W., Barge, J.K., & Blankenship, D. (1990). A comparative analysis of influence strategies used by upper and lower-level male and female managers. Western Journal of Speech Communication, 54(Winter), 42-65.
- Schunk, D.H. (1987). Peer models and children's behavioral change. Review of Educational Research, 52(2), 149-174.
- Shaver, K.G. (1975). An introduction to attribution processes. Cambridge, MA: Winthrop Publishers.
- Sorcher, M., & Goldstein, A.P. (1972). A behavior modeling approach in training. Personnel Administration, 35(March-April), 35-41.
- Stevens, G.E., & DeNisi, A.S. (1980). Women as managers: Attitudes and attributions for performance by men and women. Academy of Management Journal, 23(2), 355-361.
- Stimpson, D.V., & Reuel, L.K.S. (1984). Management style: Modeling or balancing? Journal of Psychology, 116, 169-173.

- Sullivan, S.E. & Buttner, E.H. (1992). Changing more than the plumbing: Integrating women and gender differences into management and organizational behavior courses. Journal of Management Education, 16(1), 76-89.
- Thorensen, C.E., Krumboltz, J.D., & Varenhorst, B. (1967). Sex of counselors and models: Effect on client career exploration. Journal of Counseling Psychology, 14(6), 503-508.
- Weiner, B., Frieze, I., Kukla, A., Reed, L., Rest, S., & Rosenbaum, R.M. (1972). Perceiving the causes of success and failure. In E. Jones, D.E. Kanouse, H.H. Kelley, R.E. Nisbett, S. Valins, & B. Weiner (Eds.), Attribution: Perceiving the causes of behavior (pp. 95-120). Morristown, NJ: General Learning Press.
- White, M.C., Crino, M.D., & DeSanctis, G.L. (1981). A critical review of female performance, performance training and organizational initiatives designed to aid women in the work-role environment. Personnel Psychology, 34, 227-248.
- Wiley, M.G., & Eskilson, A. (1982). Coping in the corporation: Sex role constraints. Journal of Applied Social Psychology, 12(1), 1-11.
- Wood, R., & Bandura, A. (1989). Social cognitive theory of organizational management. Academy of Management Review, 14(3), 361-384.