

Leadership categorization theory suggests that leaders who display characteristics and abilities that match observers' schematic conception of an effective leader will be more favorably evaluated than leaders who violate observers' leadership prototypes. In a test of this model, 92 male and 84 female subjects endorsing a number of different leadership prototypes were instructed to evaluate a male or female leader who acted in a task-oriented or socioemotional-oriented manner. In rating leader effectiveness, subjects showed a clear bias in favor of leaders who matched their particular prototypes, although males tended to base their ratings on prototypes more so than females. In ratings of leader collegiality, however, prototype-based biases were noted only when subjects evaluated female leaders. These ratings were not always consistent with the predictions of leadership categorization theory. These findings suggest that biases against female leaders may stem, in part, from the incongruity between subordinates' leadership prototypes and stereotypical conceptions of men and women.

THE EFFECTS OF PROTOTYPE-BASED BIASES ON LEADERSHIP APPRAISALS A Test of Leadership Categorization Theory

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Recent leadership research has begun to examine how the perceptions and prior expectations of group members affect the leadership process (Calder, 1977; Green & Mitchell, 1979; Lord, 1985;

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Lord, Binning, Rush, & Thomas, 1978). Much of this work suggests that group members, through experience and socialization, develop "implicit leadership theories": personal assumptions about the characteristics and abilities needed for successful leadership. Although these assumptions may reflect misconceptions about the leadership process, they nonetheless influence group members' reactions to their leaders (Calder, 1977; Eden & Leviatan, 1975; Rush, Thomas, & Lord, 1977). To explain this influence, Lord and his associates (Lord, 1985; Lord & Smith, 1983; Lord, Foti, & Phillips, 1982) have applied the principles of categorization theory (Rosch, 1978) to their research on perceptions of leadership.

Categorization theory suggests that because of a drive for cognitive economy, people naturally classify the objects and events of their world, breaking their environment down into understandable categories. One category is distinguished from another by its prototype (a cognitive summary of the most common features of the category), and incoming stimuli are categorized in terms of how well they match the category prototypes (Rosch, 1978). Applied to attributions of leadership, this theory suggests that followers compare their leader to their leadership prototype (leader/nonleader), label him or her on the basis of this comparison, and use the label to guide their perceptions of leadership behavior. According to this view, potential leaders possessing attributes and behaviors considered to be consistent with an observer's leadership prototype will produce attributions of leadership, whereas potential leaders possessing unprototypic attributes and behaviors will not produce attributions of leadership (Lord, 1985).

Lord and his associates (Lord, Foti, & De Vader, 1984) have provided support for this categorization-based model of leadership perceptions. They present empirical evidence of the predicted internal structure of leadership categories, accessibility of prototypes in memory, as well as other consistent effects on social information processing. They conclude that stimulus leader prototypicality influences observers' leadership perceptions and expectations. Foti, Fraser, and Lord (1982) drew similar conclusions when they found that subjects made clear distinctions between the

characteristics possessed by effective and ineffective political leaders. Consistent with categorization theory, they argued that individuals formulate leadership appraisals by comparing their leader's actions and attributes to their prototype of an effective leader.

Although most individuals apparently use leadership prototypes when evaluating leader behavior, not everyone subscribes to the same leadership prototypes. That is, people do not always agree on their criteria for effective leadership. This is not surprising. After all, implicit theories of leadership are thought to develop as a result of repeated interaction with leaders (Calder, 1977; Eden & Leviatan, 1975). Therefore, it would be reasonable to assume that individuals develop differing prototypes of ideal leadership attributes and behaviors.

Knowing an individual's personal leadership prototype would provide valuable insight into that individual's perceptions of actual leadership behavior. For example, individual differences in leadership prototypes appear to cause systematic biases in individuals' recall of actual leadership behavior. Rush and Russell (1988) found that subjects holding similar prototypes tended to describe their own supervisors similarly — apparently independently of actual supervisor behavior.

Another factor that appears to influence leader/nonleader categorization and subsequent leadership attributions is sex of leader. Generally, followers tend to attribute greater leadership ability to males than to females (Bartol & Butterfield, 1976; Deaux, 1984; Jacobson & Effertz, 1974; Rosen & Jerdee, 1973, 1978). The cause of this bias against female leaders is not clear. Perhaps because individuals have traditionally been exposed to more male than female leaders, one component of their leadership prototype may simply be that leaders are male (Brown & Geis, 1984; Deaux, 1976; Jacobson & Effertz, 1974). However, looking more deeply, this pro-male bias may stem from a perceived ill fit between subordinates' leadership prototypes and stereotypical conceptions of women. That is, the traditional view holds that men are naturally better suited to leadership than are women (Deaux, 1984; Hollander, 1985). Research suggests that stereotypically masculine traits, such

as aggressiveness, decisiveness, and unemotionality, are positively related to perceptions of leadership (Lord, De Vader, & Alliger, 1986).

In addition, research suggests that both males and females tend to undervalue the work performed by women (Goldberg, 1968; Paludi & Strayer, 1985). Paludi and Strayer (1985) recently documented this “pervasive devaluation of women in relation to men” (p. 359) in a study in which subjects evaluated the professional writing of either a male author, a female author, or an author whose sex was not easily determined (i.e., the article was attributed to an author with a “sexually ambiguous” name, such as J. T. McKay). Although judgments regarding male versus ambiguous authors did not differ, subjects showed a clear preference for articles attributed to a male author as opposed to articles attributed to a female author. This pro-male bias was consistent for articles pertaining to fields judged to be masculine, feminine, and sex neutral.

Unfortunately, a good deal of evidence suggests that these biases against females go much deeper than simply devaluing the products of women: It suggests that women hold a status of less stature than that of men. As women move into positions of leadership in traditionally masculine fields, the credibility of their abilities and professional contributions are automatically called into question (Lips, 1988). The influx of large numbers of women into a given field is associated with a decrease in prestige and desirability of that field (Bass, 1981; Touhey, 1974). This implicitly puts female leaders at a disadvantage in terms of recognition of their skills and contributions, and in terms of leadership attributions.

Our study tested the leadership categorization model as a framework for explaining perceived differences in leader behaviors. Using procedures adapted from Bartol and Butterfield (1976), male and female business students read a hospital administrator’s resume and performance evaluation form. Subjects received one of four versions of the materials: The administrator was either a male or a female, and he or she adopted one of two leadership styles (task oriented or socioemotional oriented). Rather than predict that male leaders would consistently be more positively evaluated than fe-

male leaders, however, we assumed that subjects' appraisals would be mediated by individual differences in leadership prototypes. Consistent with leadership categorization theory, it was hypothesized that the closer the match between stimulus leaders' characteristics and subjects' personal leadership prototypes, the more favorable subjects' evaluations would be.

Leadership prototypes were conceptualized in terms of Bales's theory of group role relations (Bales, Cohen, & Williamson, 1979). Extending his original Interaction Process Analysis model, Bales argues that group members' perceptions of each other are based on three dimensions: dominance versus submission, friendly versus unfriendly, and instrumentally controlled versus emotionally expressive. When applied to leadership prototypes, Bales's model suggests an individual's conception of an effective leader varies along these three dimensions. Some may prefer dominant, unfriendly, instrumentally controlled leaders, others the less dominant, friendly, expressive leader, and so on. Therefore, stimulus leaders who exhibited behaviors that fit these prototypic dimensions closely would be positively appraised, whereas leaders who violated the prototypes would be negatively appraised. Specifically, we predicted that individuals who endorsed prototypes that emphasize dominance and instrumental control would evaluate the task-oriented stimulus leader more positively, whereas individuals who endorsed friendly, emotionally expressive prototypes would evaluate the socioemotional-oriented stimulus leader more positively. Thus, at a logical level, leader prototype more so than leader sex should determine reactions to male and female leaders.

METHOD

SUBJECTS

The 92 male and 84 female subjects serving as judges were undergraduate students enrolled in an upper-level business course

on organization and management. Most were business majors. They varied in age from 18 to 49, with an average age of 22 years. The majority were White (80%), and most were currently employed. In spite of their status as students, subjects had adequate background to justify their use as judges: virtually all (94%) reported experience in dealing with managers or administrators, and 31% reported personal experience as managers or administrators.

PROTOTYPE ASSESSMENT

Individual differences in subjects' leadership prototypes were assessed using a series of adjectives drawn from the Systematic Multiple Level Observation of Groups (SYMLOG) checklist developed by Bales (Bales et al., 1979). SYMLOG consists of 27 adjective phrases that tap into three dimensions of interpersonal behavior: dominance/submission ("active, dominant, talks a lot" vs. "passive, introverted, says little"); friendly/unfriendly ("friendly, equalitarian" vs. "unfriendly, negativistic"); and instrumentally controlled/emotionally expressive ("analytical, task-oriented, problem-solving" vs. "shows feelings and emotions"). Bales and his colleagues present considerable evidence of the reliability and validity of the scales, and they argue that the three dimensions provide a comprehensive index of interpersonal behavior in group settings.

The SYMLOG General Behavior Descriptions form was modified to provide a measure of leadership prototypes. Each subject was instructed to think about the characteristics that "you feel the ideal leader would have (a leader in a business or a small organization, not a political leader)," and then describe this ideal leader using the SYMLOG adjectives.

Subjects' responses to this measure yielded three scores that correspond to the three dimensions measured by SYMLOG. Not surprisingly, these ratings indicated that subjects generally favored dominant rather than submissive, friendly rather than unfriendly, and instrumentally controlled rather than emotionally expressive behaviors in their prototypical leaders (thus, for ease of identifica-

tion, these prototype dimensions will be referred to as dominance, friendliness, and control). To identify individuals who endorsed different prototypes about leaders, subjects were classified as either high or low on each dimension if their score was above or below the median subject response for that dimension. For example, based on their pattern of responses to the SYMLOG questionnaire, some subjects endorsed leadership prototypes that were high in dominance, low in friendliness, and high in control. These individual differences in leadership prototypes were taken into account in analyses of subjects' ratings of stimulus leaders.

PROCEDURE

Stimulus materials. Individual subjects were exposed to only one stimulus leader. Each subject was issued an envelope containing a resume and a performance evaluation form that had supposedly already been completed by the stimulus leader's supervisor. The subjects were told to examine the stimulus material and then complete a questionnaire addressing their evaluation of the stimulus leader. All subjects read the same one-page resume, which presented a trained health administrator with a respectable job history. The performance appraisal form was fashioned after the form used by the Commonwealth of Virginia to evaluate employees in management positions. This form allowed the presentation of information such as principal duties of the job, goals and objectives, planning and analytical ability, managerial skills, communication skills, and specific work habits. The supervisor's performance evaluation and remarks on this form were handwritten.

Sex of the stimulus leader was manipulated by listing either Robert M. Bailey or Alice M. Bailey on the resume and performance evaluation. Subjects were exposed to the full name of the stimulus leader four times and to the first name of the leader five times throughout their examination of the stimulus materials.

All leaders were described as hard-working, competent, and creative problem solvers on the performance appraisal form. In the

TABLE 1: Effectiveness and Collegiality Items Included in Questionnaire to Subjects**Effectiveness items**

- In your opinion, how effective is this administrator's leadership style?
 Do you feel that this person is capable of satisfying the requirements of the position of hospital administrator?
 How would you rate this person on the question of competence as a hospital administrator?
 All in all, how effective do you think this administrator's behavior is?

Collegiality items

- How satisfied do you think the employees of this hospital are with this administrator?
 What do you think will be the future satisfaction of these employees with this administrator?
 How much do you think you would like this person?
 How would you like to work for this administrator?

task-oriented leader condition, however, the form included such descriptors as "strong emphasis on task completion," "makes attitudes, intentions clear to both the employees and the Governing Board," keeps employees "well informed of their responsibilities," and "gives direction to their activity." In the socioemotional-oriented leader condition, the form used these descriptors: "strong emphasis on needs of employees," "friendly and approachable," shows "genuine concern for employees," and "gives them encouragement, allows them to make contributions." Differences in stimulus leader behavior were presented in six instances within the three-page performance evaluation.

Questionnaire materials. Once subjects had read the resume and performance evaluation, they responded to eight questionnaire items addressing their perceptions and evaluation of the leader: four items pertaining to the leader's effectiveness and four items addressing the leader's collegiality (see Table 1). All items were followed by 9-point Likert-type scales with appropriate alternatives. Subjects were later fully debriefed regarding the purpose of the study, and their questions regarding the study were answered.

RESULTS

MANIPULATION CHECKS

The stimulus leader's style was successfully manipulated. Subjects rated the leader on an item assessing perceived task orientation ("To what degree do you feel this administrator is concerned with tasks — established patterns of organization and effective strategies for getting jobs accomplished?") and an item pertaining to socioemotional orientation ("To what degree do you feel this administrator is concerned with relationships — emphasis on employee support, friendship, and mutual trust?"). Two (Leadership Style: Task-oriented, Socioemotional-oriented) \times 2 (Sex of Leader) \times 2 (Sex of Subject) least squares analyses of variance that adjusted each effect for those of lower order yielded significant main effects for leadership style on both items; $F_s(1, 168) = 31.80$ and 191.84 , respectively, $ps < .0001$. Subjects' mean response for task-oriented leaders was higher on the task-oriented item (8.3 vs. 7.2); mean response for socioemotional-oriented leaders was higher on the socioemotional-oriented item (8.2 vs. 5.1).

All subsequent analyses addressed subjects' responses to the four effectiveness items and four collegiality items listed in Table 1. The two groups of items were submitted to 2 (Leadership Style: Task-oriented, Socioemotional-oriented) \times 2 (Sex of Leader) \times 2 (Sex of Subject) \times 2 (Dominance Prototype: High, Low) \times 2 (Friendliness Prototype: High, Low) \times 2 (Control Prototype: High, Low) multivariate analyses of variance (MANOVA) using a least squares approach to correct for unequal cell sizes. All multivariate tests reported here are based on Pillai's trace, and all reported F ratios are approximations to the univariate F distribution. Only the effects that were found to be significant multivariately were subjected to univariate analyses of variance (ANOVA) and are discussed here. When appropriate, post hoc comparisons were conducted using Duncan's new multiple range test. In all cases higher mean ratings indicate more favorable evaluations of leader effectiveness and collegiality.

PERCEPTIONS OF EFFECTIVENESS

Dominance prototype and leadership appraisals. The multivariately significant three-way interaction of leadership style, subject sex, and dominance prototype (which qualified a lower-order interaction of style and dominance prototype)— $F(8, 258) = 2.88$, $p < .05$ —was significant univariately on the item “In your opinion, how effective is this administrator’s leadership style?”; $F(1, 113) = 6.69$, $p < .01$. Overall, the stimulus leader received relatively positive evaluations; in six of the eight conditions composing the three-way interaction the mean ratings ranged from 7.5 to 7.7 on the 9-point scale. The interaction, however, was caused by two exceptions to this overall tendency: Male subjects whose leadership prototypes emphasized dominance gave higher evaluations to the task-oriented stimulus leader ($M = 8.2$), whereas female subjects whose leadership prototype de-emphasized dominance gave lower evaluations to the socioemotional-oriented stimulus leader ($M = 6.7$). Thus, although male subjects’ reactions to leaders were consistent with their prototypes regarding dominance, this was not true of all female subjects.

Control prototype and leadership appraisals. The three-way interaction of leadership style, subject sex, and the control prototype was also significant; $F(4, 128) = 2.94$, $p < .05$. This interaction was significant univariately on the item “How would you rate this person on the question of competence as a hospital administrator?”; $F(1, 113) = 9.38$, $p < .01$. As with the dominance prototype, predictions were supported for male subjects, but not for female subjects (see Figure 1). Male subjects whose leadership prototype emphasized control gave favorable ratings to the task-oriented leader and less favorable ratings to the socioemotional-oriented leader; male subjects who endorsed prototypes that de-emphasized control did not differentially evaluate the two types of leaders. Female subjects, however, displayed the opposite tendency. Those who de-emphasized control (in favor of emotional expressiveness) gave favorable ratings to the task-oriented leader and less favorable

ratings to the socioemotional-oriented leader, whereas those females who endorsed prototypes that emphasized control did not differentially evaluate the two types of leaders. This three-way interaction was also significant on the item "All in all, how effective do you think this administrator's behavior is?"; $F(1, 113) = 7.45, p < .01$. The mean responses to this item followed a pattern similar to that shown in Figure 1.

Friendliness prototype and leadership appraisals. The two-way interaction of leadership style and the friendliness prototype was multivariately significant; $F(4, 128) = 4.40, p < .005$. This interaction was univariately significant on three of the four effectiveness items. As the means shown in Table 2 indicate, subjects whose prototypes emphasized friendliness rated the socioemotional-oriented leader more positively than the task-oriented leader. In contrast, those who endorsed prototypes that de-emphasized friendliness rated the task-oriented leader more positively than the socioemotional-oriented leader. Thus the better the fit between the individual's friendliness prototype and the leader, the more positive the leadership appraisal. Moreover, this effect was not qualified by subject sex differences.

PERCEPTIONS OF COLLEGIALITY

Overall, the socioemotional-oriented stimulus leader received more positive ratings than the task-oriented leader on the four items addressing leader collegiality. This main effect for leadership style was significant multivariately, $F(4, 128) = 5.23, p < .001$, and univariately on two items. When asked "How satisfied do you think the employees of this hospital are with this administrator?" subjects exposed to socioemotional-oriented leaders estimated higher satisfaction ($M = 8.2$) than did subjects exposed to task-oriented leaders ($M = 6.9$); $F(1, 113) = 13.48, p < .001$. On the item "How much do you think you would like this person?" subjects again indicated higher liking for socioemotional-oriented leaders ($M = 6.3$) than for task-oriented leaders ($M = 5.0$); $F(1, 113) = 11.27, p < .001$.

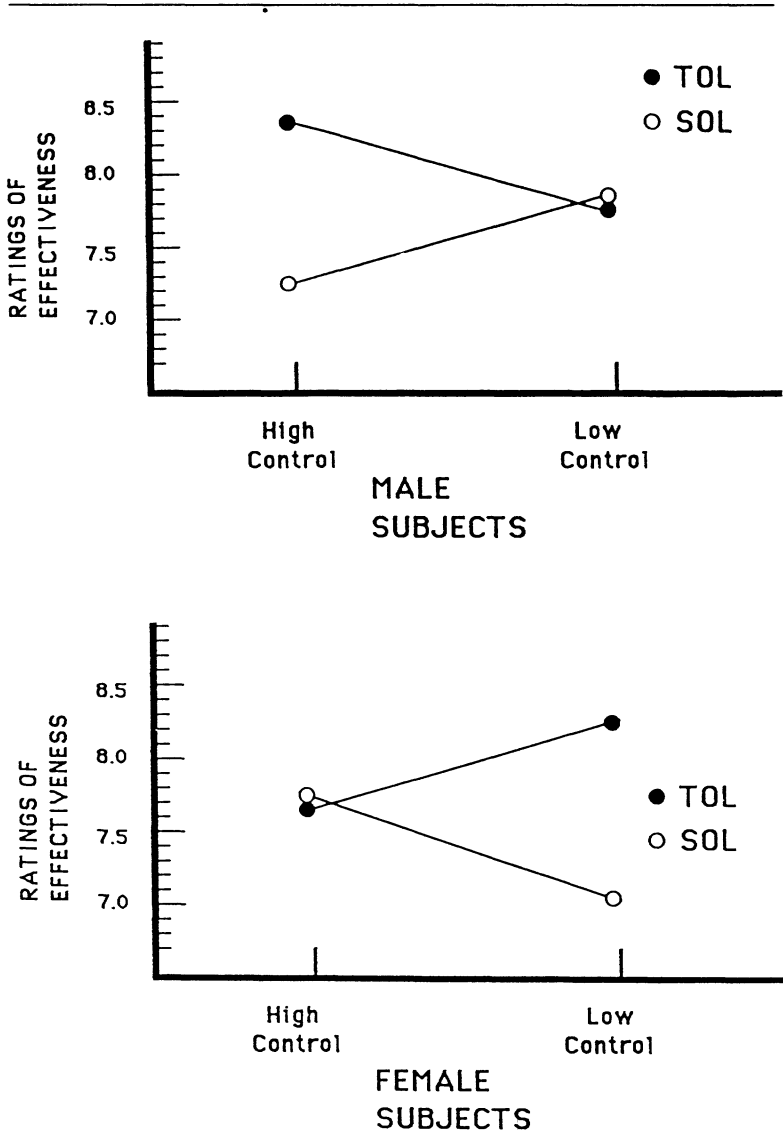


Figure 1: Mean Responses to the Item "How Would You Rate This Person on the Question of Competence as a Hospital Administrator?" by Subjects Who Endorsed High- and Low-Control Prototypes

SOL = socioemotional-oriented leader; *TOL* = task-oriented leader. The greater the mean, the more competent the leader was considered to be.

TABLE 2: Mean Ratings of Socioemotional-Oriented and Task-Oriented Stimulus Leaders for Effectiveness by Subjects Who Endorsed High- and Low-Friendliness Prototypes

Item	Friendliness Prototype				df	F
	High		Low			
	SOL	TOL	SOL	TOL		
Capable?	8.0 _{ab}	7.7 _{ab}	7.6 _b	8.3 _a	(1, 110)	4.53*
Competent?	7.8 _{ab}	7.7 _{ab}	7.4 _b	8.2 _a	(1, 112)	5.70*
Effective behavior?	7.4 _a	6.8 _b	6.4 _b	6.9 _{ab}	(1, 113)	14.49**

NOTE: SOL = socioemotional-oriented leader; TOL = task-oriented leader. The greater the mean, the more effective the leader was considered to be. Means sharing a subscript do not differ significantly.

* $p < .05$; ** $p < .001$.

However, subjects' prototypes about leadership partially moderated this overall tendency. The friendliness prototype interacted significantly with leadership style on the multivariate level, $F(4, 128) = 4.62, p < .005$. This interaction reached univariate significance on two items ("How much do you think you would like this person?" and "How would you like to work for this administrator?"). As shown in Table 3, all subjects rated the socioemotional-oriented leaders higher on collegiality than they did the task-oriented leaders, but this tendency was particularly pronounced among subjects who endorsed high-friendliness leadership prototypes.

In addition, two three-way interactions, both involving sex of leader, were multivariately significant. These effects, which qualified several lower-order interactions, are considered below.

Dominance and friendliness prototypes and leader's sex. The multivariately significant three-way interaction of two of the prototype dimensions (dominance and friendliness) and leader's sex indicated that subjects who felt that the ideal leader should be both dominant and friendly and who were presented with female stimulus leaders tended to rate their leaders lower than any other subject group; $F(4, 128) = 4.07, p < .005$. This interaction achieved univariate significance on two items.

TABLE 3: Mean Ratings of Socioemotional-Oriented and Task-Oriented Stimulus Leaders for Collegiality by Subjects Who Endorsed High- and Low-Friendliness Prototypes

Item	Friendliness Prototype				df	F
	High		Low			
	SOL	TOL	SOL	TOL		
Like this person?	6.6 _a	4.9 _b	6.0 _a	5.2 _b	(1, 113)	5.34*
Like to work for?	7.5 _a	5.7 _c	6.9 _{ab}	6.8 _b	(1, 113)	13.00**

NOTE: SOL = socioemotional-oriented leader; TOL = task-oriented leader. The greater the mean, the more collegial the leader was considered to be. Means sharing a subscript do not differ significantly.

* $p < .05$; ** $p < .001$.

The F ratio and mean responses on the item, "How would you like to work for this administrator?" are shown in Table 4. Although most subjects did not differ in their ratings, subjects holding high-dominance, high-friendliness prototypes who were exposed to male leaders were significantly more positive toward them than were those exposed to female leaders. A similar pattern occurred on the item "How much do you think you would like this person?" (see Table 4).

Dominance and control prototypes and leader's sex. The multivariately significant three-way interaction of the dominance and control prototypes with leader's sex — $F(4, 128) = 3.11, p < .05$ — reached univariate significance on one item, "How much do you think you would like this person?"; $F(1, 113) = 5.79, p < .02$. Examination of the means indicated that female stimulus leaders were least liked ($M = 4.2$) by subjects holding both the high-dominance and the high-control prototypes. Male stimulus leaders were rated significantly higher by this group ($M = 5.6$). Subjects holding low-dominance and low-control prototypes gave the highest collegiality ratings (means were 6.3 and 6.4 for male and female leaders, respectively). The means for the remaining conditions fell in between and did not differ from one another.

TABLE 4: Mean Ratings for Collegiality of Male and Female Stimulus Leaders by Subjects Who Endorsed Both High- and Low-Dominance and High- and Low-Friendliness Prototypes

Item and Sex of Leader	Dominance Prototype				F
	High		Low		
	HFP	LFP	HFP	LFP	
How would you like to work for this administrator?					7.85**
Male leader	6.8 _a	6.3 _{ab}	6.9 _a	7.0 _a	
Female leader	5.7 _b	7.1 _a	7.4 _a	6.8 _{ab}	
How much do you think you would like this person?					4.19*
Male leader	5.9 _{abc}	5.1 _{abc}	6.1 _a	6.0 _{ab}	
Female leader	4.9 _c	5.4 _{abc}	6.5 _a	5.9 _{abc}	

NOTE: $df = (1, 113)$. HFP = high-friendliness prototype; LFP = low-friendliness prototype. The greater the mean, the more collegial the leader was considered to be. Means sharing a subscript do not differ significantly.

* $p < .05$; ** $p < .01$.

DISCUSSION

The current results suggest that observers' reactions to a leader are influenced by their implicit assumptions about leaders and the leadership process. When making judgments about a leader's effectiveness and collegiality, subjects who endorsed divergent prototypes about effective leaders preferred different types of leaders. For example, subjects who felt that an effective leader should be warm, positive, and friendly rated the socioemotional-oriented leader more positively than they rated the task-oriented leader. In contrast, those who endorsed prototypes that de-emphasized friendliness rated the task-oriented leader more positively than the socioemotional-oriented leader. Thus evaluations were usually consistent with the predictions of the leadership categorization model: The closer the match between the individual's prototype and the leader's attributes and behaviors, the more favorable the evaluation.

Interestingly, some female subjects were not as strongly influenced by their prototypes as male subjects were. Although leadership prototypes for friendliness were linked to both male and female

subjects' judgments, the other two prototype dimensions (dominance and control) were consistently linked only to male subjects' judgments. The reactions of male subjects support the leadership categorization model's predictions: Male subjects who felt that an ideal leader should be more dominant or more controlled gave more favorable evaluations to task-oriented leaders. The evaluations of female subjects, however, occasionally ran contrary to expectations: Female subjects who felt that ideal leaders should show less dominance reacted less favorably to the (presumably less dominant) socioemotional-oriented leaders, and female subjects who de-emphasized control gave less favorable ratings to the (presumably less controlled) socioemotional-oriented leaders.

The reasons for this divergence between the judgments of male and female subjects are not clear. Because the discrepancy occurred only on the two "power" dimensions (dominance and control) rather than the "affect" dimension of friendliness, they may reflect female subjects' reluctance to base appraisals on these two dimensions. However, this explanation cannot account for the counterintuitive tendency for some female subjects to evaluate negatively leaders who matched their prototype. Moreover, the discrepancy between endorsed prototypes and evaluations of stimulus leaders occurred only with female subjects who endorsed the low alternative of each power dimension (i.e., low dominance and low control). Speculating, some female subjects may have temporarily disregarded their own leadership prototypes after reading about a successful task-oriented leader whose behavior did not match their prototype. For example, although an individual may personally believe that an ideal leader need not be dominant, she may acknowledge that a more dominant style would be appropriate in the particular managerial situation facing a hospital administrator. Additional data are needed to explore this possibility. However, the current results illustrate the importance of considering the sex of the subject when examining perceptions of leadership: Males and females apparently do not always perceive leaders in the same way (Armstrong & Williamson, 1988; Lord, Phillips, & Rush, 1980).

At this point it would be relevant to address another aspect of the leadership prototypes of these female subjects, namely, what is the sex of their prototypical leader? Although the literature suggests that if leadership prototypes specify a leader's sex, they are more likely to be male (Brown & Geis, 1984; Deaux, 1976; Lord et al., 1986), this is probably not the case for all individuals. Some subjects in our study endorsed prototypes that de-emphasized dominance and control, supporting the possibility that some individuals endorse leadership prototypes with more stereotypically feminine characteristics. Some researchers argue that many individuals, particularly women, recognize the useful applications of more "feminine principles" of leading in today's world of leadership (e.g., Helgesen, 1990). This issue is worthy of further empirical exploration.

Turning to judgments of leader collegiality, subjects generally gave more positive ratings to socioemotional-oriented stimulus leaders. On items assessing follower satisfaction and leader collegiality, however, their responses suggest that prototypes also have an effect on these perceptions — although not necessarily consistent with the predictions of categorization theory: Prototype-based biases occurred only when subjects evaluated female stimulus leaders. Surprisingly, subjects who endorsed a high-dominance, high-friendliness leadership prototype evaluated the female leader more negatively than the male leader on collegiality. Subjects who emphasized high-dominance and high-control leadership prototypes displayed a similar pattern of preference.

These results are relevant to the current discussion of biases against female leaders. Although we found no significant effects due to sex of the stimulus leader on questions dealing with leadership effectiveness, when subjects evaluated the collegiality of the leaders and estimated subordinates' satisfaction, some rated females more negatively than they rated males. These findings suggest that prejudice against female leaders may be partly — but not entirely — mediated by leadership prototypes. Despite identical performance information for the male and female stimulus leaders, some subjects exhibited less liking and expressed less desire to

work for female leaders. These results are consistent with previous findings indicating that both men and women prefer men as their bosses (Ferber, Huber, & Spitze, 1979), members of small groups generally select male rather than female leaders (Eskilson & Wiley, 1976), and females receive lower evaluations and fewer promotions than males even when actual performance data are held constant (Jago & Vroom, 1982; Rosen & Jerdee, 1973).

In our study the differential estimates of collegiality cannot be due to varying degrees of matching between subjects' leadership prototypes and stimulus leaders' behavior—both male and female leaders behaved identically. These differences therefore must be due to subjects' general assumptions about differences between men and women. Moreover, because these biases occurred only on the questionnaire items addressing leader collegiality, and not on the items addressing leader effectiveness, they suggest that prejudice against female leaders may take a relatively subtle form. That is, although individuals may acknowledge that women can be as effective leaders as men, they may not personally wish to work under a female leader.

To close on a methodological note, despite the use of a questionnaire format, the resume and performance evaluation format provided adequate information from which subjects could evaluate leader behavior. This technique allowed standardized information to be presented to subjects, while avoiding inconsistencies in stimulus leader styles. Such control would not have been possible using actual leaders in a field experiment, presenting videotaped interactions, or using leaders and ad hoc groups in the laboratory. In these cases it would have been impossible to hold leader behaviors constant or to manipulate the leader's sex orthogonally. Moreover, the use of a simulated performance evaluation form increases the correspondence between experimental settings and judgments made in organizational settings. Although these findings must be replicated in ongoing leadership settings, they offer compelling insight into the cognitive foundations underlying leadership appraisals.

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