Small Group Research
http://sgr.sagepub.com

Leader Emergence And Gender Roles in All-Female Groups: A Contextual Examination

Amy B. Gershenoff and Roseanne J. Foti

Small Group Research 2003; 34; 170
DOI: 10.1177/1046496402250429

LEADER EMERGENCE AND GENDER ROLES IN ALL-FEMALE GROUPS
A Contextual Examination

AMY B. GERSHENOFF
ROSEANNE J. FOTI
Virginia Polytechnic Institute and State University

Research suggests that gender role, rather than sex, is associated with the perception of individuals as leaders. This study tests the effect of gender role and intelligence on leadership emergence by using a pattern approach and manipulating task type. Two hundred female undergraduate participants, categorized by their pattern of masculinity, femininity, and intelligence, were placed in groups of 4 members. Groups were randomly assigned to an initiating-structure or consensus-building task condition. In the initiating-structure task condition, both masculine-intelligent and androgynous-intelligent individuals emerged more than feminine-intelligent or mixed-pattern individuals. In the consensus-building task condition, feminine-intelligent individuals did not emerge as leaders more than masculine-intelligent or mixed-pattern individuals. However, partial support was found for the emergence of androgynous-intelligent individuals.

Keywords: *leadership; leader emergence; gender roles; group dynamics; androgyny*

Leadership emergence is a result of the consensual agreement in the perceptions of fellow group members that one individual is the leader in work groups in which a formal leader has not been

---

AUTHORS' NOTE: *The authors would like to thank Dr. Robert J. Harvey and Dr. Neil M. A. Hauenstein for their input throughout this project. They are grateful to Ty Breland, Jennifer Cullen, Gregory Lemmond, and Stephanie Wilson for their hard work as research assistants. This article is based on Amy B. Gershenoff's master's thesis and an earlier version was presented at the 15th annual meeting of the Society for Industrial and Organizational Psychology, New Orleans, Louisiana, April 2000. Correspondence concerning this article should be addressed to Amy B. Gershenoff or Roseanne J. Foti, Department of Psychology, Virginia Polytechnic Institute and State University, Blacksburg, VA 24061-0436; e-mail: amyg@vt.edu or rfoti@vt.edu.*

SMALL GROUP RESEARCH, Vol. 34 No. 2, April 2003 170-196
DOI: 10.1177/1046496402250429

assigned (Berdahl, 1996; Hall, Workman, & Marchioro, 1998). According to Lord and Maher (1991), group members' perception that one individual has emerged as the leader results as an outcome of individual differences, behaviors, and outcomes produced by the leader, and then perceived by followers as leader-like.

Research in small group leadership has focused on finding individual differences that predict leadership emergence. For example, the effect of sex on leadership emergence has been widely researched, but studies that have explored this relationship have found mixed results. Some research finds a sex difference, with a preference for male leadership (Carbonell, 1984; Fleischer & Chertkoff, 1986; Hegstrom & Griffith, 1992; Megargee, 1969). Other studies have failed to find a sex difference in the proportion of males and females that emerge as leaders (Anderson & Schneier, 1978; Hawkins, 1995; Kolb, 1997; Schneier & Bartol, 1980). A meta-analysis by Eagly and Karau (1991) revealed that the tendency for males to emerge as leaders was moderated by the type of leadership being studied (i.e., task-oriented or interpersonally oriented), gender orientation of the task (i.e., masculine or feminine), and the social complexity of the task. More recent research suggests that studying the effect of gender role, rather than sex, may be more fruitful in explaining these differences (Goktepe & Schneier, 1989; Kent & Moss, 1994; Moss & Kent, 1996). These researchers have found that leadership emergence is influenced more by gender role than sex. Thus, understanding the relationship between gender-role and leadership perceptions may have important implications for the selection and evaluation of group leaders in organizations.

Although sex and gender role are correlated, gender role is not necessarily dictated by biological sex. Rather, gender is a distinct and culturally constructed phenomenon defined as the shared expectations of individuals based solely on socially identified sex (Eagly, 1987). Masculinity and femininity are often thought of as opposite ends of a continuum, but they are actually independent dimensions (Bem, 1974). As such, an individual of either sex can be masculine, feminine, or both (androgynous). Androgyny is

associated with flexibility in behavior, such that androgynous individuals are able to adapt their behavior to be more masculine or feminine depending on what is appropriate. The current study seeks to examine the effect of gender role, rather than sex, on leadership emergence. To control for the effect of sex on emergence, all female participants were studied.

Aside from neglecting the influence of gender role on leadership emergence, the mixed support for the effect of sex on leadership emergence may be explained by the tasks used in studies of leadership emergence. Many of these studies examine leadership emergence on tasks that have a masculine-gender orientation. Because context provides clues about the appropriate type of leadership required for task performance, the masculine nature of these tasks may facilitate the emergence of male leaders. Empirical evidence suggests that the gender orientation of the task moderates the sex and leader emergence relationship (Carbonell, 1984; Eagly & Karau, 1991; Wentworth & Anderson, 1984). In addition, evidence from social psychological literature suggests that the relationship between gender role and leader emergence may be moderated by the gender orientation of the task type (Bem, 1975; Bem & Lenney, 1976). Although Hall et al. (1998) did not find support for the emergence of feminine leaders on a consideration task, these authors called for future research to examine other tasks that may allow for the emergence of feminine leaders. In the current study, the gender orientation of the task will be manipulated to reflect either an initiating-structure or a consensus-building context associated with masculine or feminine gender roles, respectively.

The purpose of this study is to examine the interaction of individual differences in gender role and context on leadership emergence. We are particularly interested in the effect of androgyny on leadership emergence across task types. In addition, in answer to a call by Lord and Emrich (2001) to study the variables associated with leadership from a more holistic perspective, gender role will be examined using a pattern approach, making the individual, not the variables, the unit of study.

GENDER AND LEADERSHIP

Gender-role theory (Eagly, 1987) states that people develop gender-role expectations for themselves and others based on their beliefs about what constitutes socially acceptable behavior for men and women (Eagly & Johnson, 1990; Eagly & Karau, 1991; Eagly, Makhijani, & Klonsky, 1992). Bem (1974) classified gender roles by identifying characteristics that are more valued for one sex or the other in American society. According to Bem, "masculinity has been associated with an instrumental orientation, a cognitive focus on 'getting the job done'; and femininity has been associated with an expressive orientation, an affective concern for the welfare of others" (p. 156).

Given the "getting the job done" perspective of masculine-gender-typed individuals, it is not surprising that studies of the effects of gender on leadership emergence consistently have found that masculine individuals tend to be identified as emergent leaders more often than feminine individuals (Goktepe & Schneier, 1989; Kent & Moss, 1994; Kolb, 1997; Moss & Kent, 1996; Powell & Butterfield, 1979). Although there is less of a linkage between femininity and the perception of leadership, Ross and Offermann (1997) found feminine attributes positively associated with transformational leadership. Transformational leaders can create drastic changes in organizations by engaging in behaviors that convey charisma, intellectual stimulation, and individualized consideration (Bass, 1985). This suggests that a link may exist between feminine traits and the perception of leadership.

As noted above, in addition to masculine and feminine gender roles, Bem (1974) also introduced the concept of the androgynous personality as endorsing high levels of both masculine and feminine behaviors and characteristics. Unlike sex-typed individuals, androgynous individuals, regardless of sex, displayed both "masculine" independence and "feminine" playfulness in different sex-typed contexts (Bem, 1975). Bem asserted that androgynous individuals are able to show flexibility in their behavior and adapt to situations that demand behavior that is stereotypically more appropriate for one sex or the other by displaying behaviors that are

masculine, instrumental, and assertive as well as those that are feminine, expressive, and yielding. In addition, androgyny has been linked to a communication style of rhetorical reflection associated with a concern for what is appropriate for a given situation (House, Dallinger, & Kilgallen, 1998).

The few empirical studies that have examined the role of psychological androgyny and leadership emergence have generally supported a relationship between the two. In initially leaderless groups that allowed for only one emergent leader, Moss and Kent (1996) found that masculine personality types emerged most often, but when multiple emergent leaders were allowed, both masculine and androgynous group members emerged. Furthermore, Kent and Moss (1994) found that androgynous and masculine participants were most likely to emerge as the leader in gender-neutral task situations. Finally, Kolb (1997) replicated these findings in a classroom setting with students who worked in groups on gender-neutral projects over a 2-month period, suggesting that further exploration of the linkage between psychological androgyny and leadership emergence is warranted.

PATTERNS AND LEADERSHIP EMERGENCE

Previous research has examined the relationship between gender and leadership at the level of the individual variables. However, Lord and Emrich (2001) suggested that because patterns of individual differences in perceivers' implicit leadership theories contain important information beyond their specific elements for the prediction of emergence, it may be more useful for the effect of individual differences to be examined in an interactive, multivariate sense. A person approach (Magnusson, 1995) asserts that to understand human functioning, an individual's pattern of scores across a set of theoretically meaningful variables must be obtained. Of key importance is the interaction among the variables involved, in which the person, not individual difference variables, is the basic unit of observation. Individuals are clustered into homogenous groups on the basis of their pattern of scores across variables. Once

the individuals have been classified into groups, these groups—and not the variables—become the focus of study.

The pattern approach has been useful in exploring a diverse array of research topics ranging from juvenile delinquency to career choice (Gibbs, 1982; Goeke, Tosi, & Eshbaugh, 1993; Tango & Uziuban, 1984). More specifically, this approach has also been a useful tool in the study of personality and leadership. McClelland and Boyatzis (1982) supported the hypothesis that the leadership motive pattern, which includes moderate to high need for power, low need for affiliation, and high activity inhibition, was related to managerial success for nontechnical managers after 8 and 16 years. Sorrentino and Field (1986) classified individuals according to their achievement-related and affiliation-related motives and placed them into 4-person workgroups with each person varying on his or her combination of these traits. They found that over the course of 5 weeks, participants who were high on both of these variables scored the highest on two measures of leadership emergence and persons who were low on both variables scored the lowest. Finally, Smith and Foti (1998) classified participants based on their pattern of dominance, general self-efficacy, and intelligence and found that participants who were high on all three traits emerged significantly more often as leaders than participants who were low on all three traits.

In the current study, gender role will be examined using a pattern approach. In addition to masculinity and femininity, intelligence will be examined as a third variable in the pattern. The decision to include intelligence as a variable in the pattern was based on the consistent and robust relationship between intelligence and leadership perceptions (Lord, De Vader, & Alliger, 1986; Lord, Foti, & De Vader, 1984; Smith & Foti, 1998; Zaccaro, Foti, & Kenny, 1991). Therefore, individuals will be grouped based on their pattern of masculinity, femininity, and intelligence. The patterns to be compared are: masculine-intelligent (high masculinity, low femininity, high intelligence) (HLH), feminine-intelligent (low masculinity, high femininity, high intelligence) (LHH), and androgynous-intelligent (high masculinity, high femininity, high intelligence)

(HHH). Because we are interested in comparing the emergence of individuals with these specific patterns, individuals with any other combination of these characteristics were classified as having a mixed pattern (HHL, HLL, LHL, LLL, or LLH).

THE EFFECT OF TASK TYPE ON LEADERSHIP EMERGENCE

The type of task used in leadership emergence studies is critical because tasks provide information to leaders and followers indicating what kind of behaviors are appropriate in that particular situation (Lord & Emrich, 2001). Specifically, the perception of leadership may depend on whether the task demands that the leader have (a) masculine attributes and behaviors such as independence and initiating structure, with a focus on effective or efficient task completion; or (b) feminine attributes and behaviors such as friendliness and consideration, with a focus on maintaining good relationships with followers (Hall et al., 1998; Lord & Maher, 1991). Thus, it is likely that leadership emergence is not only a function of individual differences but also that different task types lead to different leadership outcomes.

Traditionally, differences in leadership emergence have been studied in masculine or "neutral" contexts such as required business course projects (Goktepe & Schneier, 1989; Kent & Moss, 1994; Luthar, 1996; Moss & Kent, 1996). However, studies in the social psychological literature have found differential effects of gender associated with different types of tasks (Bem, 1975; Bem & Lenney, 1976) and a positive effect for psychological androgyny across tasks. Thus, emergence is expected when leader gender is congruent with the gender orientation of the task type and androgynous individuals are expected to emerge across tasks due to flexibility in their behavior.

Despite the assertion that task type moderates the effect of gender on leadership emergence, some studies have found mixed results for the effect of femininity on female-oriented tasks (e.g., Eagly & Karau, 1991; Hall et al., 1998; Karakowsky & Seigel, 1999). These results may be due to the nature of the task used in these studies. For instance, the task used by Hall et al. (1998) was a

consideration task in which participants were asked to brainstorm recommendations for dealing with children with AIDS, and the task used by Karakowsky and Seigel (1999) was a negotiation task that differed from the male-oriented task only in that participants negotiated sexual harassment issues rather than issues surrounding cars. Although they deal with sensitive female-oriented or social topics, these tasks may not be strong enough manipulations of feminine leadership behavior to lead to the perception of feminine participants as emergent leaders. Therefore, in the current study, an attempt was made to more powerfully manipulate the gender orientation of the task demands such that they require more masculine or more feminine leadership styles. The initiating-structure task chosen requires the group to be efficient and effective, whereas the consensus-building task requires the group to be more social and reach agreement. Thus, the gender orientation of these tasks was manipulated by using tasks associated with maximizing demands (to produce effectively and efficiently) associated with masculine leadership or optimizing demands (to come to agreement on the best possible solution) associated with feminine leadership (Huston-Comeaux & Kelly, 1996).

The differentiation between task types may lead to a preference for different types of leaders, indicating that depending on the nature of the situation, different gender-typed leadership behavior may be preferable. Moreover, it is possible that psychological androgyny is advantageous because it allows the individual to be flexible and emerge as a leader in situations that demand either masculine or feminine leadership. Based on gender-role congruency theory and Bem's (1974) conception of sex-role stereotyping and gender-role adaptability, we offer the following hypotheses:

Hypothesis 1: Individuals possessing masculine-intelligent and androgynous-intelligent patterns will be rated and ranked higher on leadership than individuals possessing feminine-intelligent or mixed-personality patterns on initiating-structure tasks.

Hypothesis 2: Individuals possessing feminine-intelligent and androgynous-intelligent patterns will be rated and ranked higher on leadership than individuals showing masculine-intelligent or mixed patterns on consensus-building tasks.

TABLE 1: Intercorrelations of Independent Variables From the Mass Screening

	1	*2*	*3*
1. Masculinity			
2. Femininity[a]	.03		
3. Intelligence	.10*	–.04	

NOTE: $N = 601$.
a. Femininity score includes five additional items to Bem's (1974) scale.
*$p < .05$.

METHOD

PARTICIPANTS AND DESIGN

Participants included in the focal study were 200 undergraduate females. Initially, to screen a sufficient number of participants to fill the pattern conditions in the focal study, 601 individuals were asked to complete measures of masculinity and femininity (Bem Sex-Role Inventory) (Bem, 1974) and intelligence (Wonderlic Personnel Test) (Wonderlic, 1983). Table 1 shows the intercorrelations between the independent variables from the screening.

Individuals were classified into masculine-intelligent, feminine-intelligent, androgynous-intelligent, or mixed-personality patterns based on their scores on measures of three variables: masculinity, femininity, and intelligence (see Pattern Designations section below). Individuals participated in groups of 4. Each experimental group contained 1 masculine-intelligent member, 1 feminine-intelligent member, 1 androgynous-intelligent member, and 1 mixed-personality pattern member. Table 2 presents the frequency of the four patterns and the LLH (low in masculinity, low in femininity, and high in intelligence) subset of the mixed pattern[1] as well as the means, medians, and standard deviations for each of the personality traits by pattern.

A 4 (Personality Type Condition) × 2 (Task Assignment Condition) factorial design was used to study leadership emergence. Fifty groups were randomly assigned to either the initiating-structure task or the consensus-building task.

TABLE 2: Descriptive Statistics for Participants in Each Hypothesized Pattern

	Masculinity			*Femininity*[a]			*Intelligence*		
Pattern	M	*Median*	SD	M	*Median*	SD	M	*Median*	SD
Masculine	107.56	104.5	9.32	118.94	120.50	8.74	29.54	29.00	3.11
Feminine	84.66	86.00	9.72	140.58	139.50	8.04	29.30	28.50	3.25
Androgynous	106.64	106.00	5.90	141.44	140.00	6.13	29.20	29.00	3.78
Mixed	82.16	82.00	9.71	123.12	124.50	11.10	23.26	22.50	4.52
LLH	83.13	81.00	7.65	121.53	122	8.21	28.93	27.00	3.53

NOTE: High scores indicate high standing on each of the three traits. $n = 50$ for each pattern; total $n = 200$. LLH = low in masculinity, low in femininity, and high in intelligence.
a. Femininity score includes 5 additional items to Bem's (1974) scale.

PERSONALITY TRAIT MEASURES

The Bem Sex-Role Inventory (BSRI). The BSRI contains a masculinity scale, a femininity scale, and a social desirability scale, which contain 20 items each. Participants rated, on a 7-point scale, how well each of the personality characteristics described her. The scales range from 1 (*never or almost never true*) to 7 (*always or almost always true*). Based on these responses, participants received two separate scores: a masculinity score and a femininity score. Scores were determined by summing the responses of items of each scale, as suggested by Spence, Helmreich, and Stapp (1975) and advocated by Bem and Watson (see Motowidlo, 1981). The internal consistency reliability for this sample was .87 for the masculinity scale and .80 for the femininity scale. Although the BSRI is commonly used in research about the effect of gender on leadership, the masculinity scale contains items that directly and indirectly tap leadership (e.g., "has leadership abilities"). To tap behaviors that are associated with a feminine leadership style, 5 items were written by the authors and added to the femininity scale (e.g., "solicits the input of others when making group decisions"). These items were generated by the authors based on literature suggesting they are indicative of a feminine leadership style (e.g., Davis, Skube, Hellervik, Gebelein, & Sheard, 1996; Eagly & Karau, 1991). The internal consistency reliability for the femininity scale with 5 additional items in this sample was .82. The addition of the 5 items to the femininity scale did not change participants' classification on the femininity variable, as 88% of the participants' classification would have been the same had Bem's scale been used alone.

Wonderlic Personnel Test (WPT). The WPT, form A, developed by Wonderlic (1983) was used as a measure of intelligence. The 50-item, paper and pencil test is administered over 12 minutes, with the items presented in order of increasing difficulty. An individual's score is calculated as the number of correct responses out of 50. This test has been demonstrated to be valid and reliable as a measure of intelligence (Dodrill, 1981, 1983; Dodrill & Warner, 1988).

PATTERN DESIGNATIONS

The pattern designations were made based on median splits on each variable of interest. That is, we computed the median score for masculinity, femininity, and intelligence. Each participant was categorized into one of the following patterns: a masculine-intelligent pattern (scoring above the median on masculinity, below the median on femininity, and above the median on intelligence) (HLH), a feminine-intelligent pattern (scoring below the median on masculinity, above the median on femininity, and above the median on intelligence) (LHH), and a mixed pattern (having any other combination of these traits: HHL, HLL, LHL, LLL, or LLH). Participants whose scores fell on the median for any variable were not selected to participate in the focal study.

TASK CONDITIONS

Initiating-structure task. In this condition, participants engaged in a manufacturing game associated with a predominant leadership style of initiating structure. The task involves buying Lego pieces and manufacturing products to sell back to the buyer (i.e., the experimenter) for the greatest amount of profit. The task involves not only manufacturing the products but also a planning period in which participants develop a cost-effective buying and manufacturing strategy. Participants are required to make the products efficiently and effectively. Using McGrath's (1984) circumplex task typology, this task is a combination of the "generate" and "execute" quadrants.

Consensus-building task. In this condition, participants engaged in a problem-solving task called "Lost in Summer Camp." This is a consensus-building task in which participants are told a story about several crises going on simultaneously at a summer camp and are asked to rank order 10 items in order of importance. Participants completed the rankings individually and then as a group. The group rankings require considerable interaction between group members.

Participants are required to come to agreement about the correct order of importance. The task is feminine because the social nature of task requires not only a focus on being considerate of other group members' feelings but also a focus on achieving harmony among group members and reaching consensus as to the optimal solution (Eagly & Karau, 1991; Huston-Comeaux & Kelly, 1996). Using McGrath's (1984) circumplex task typology, this task would fall in the "choose" quadrant. In a pilot study, participants completed the consensus-building task, were presented with descriptions of initiating-structure and consensus-building tasks, and were then asked to choose the description that best described the task. The pilot study revealed that significantly more participants saw the task as building consensus than initiating structure $\chi^2(1, N = 24) = 10.67$, $p = .00$.

PROCEDURES

Each of the 50 groups contained a masculine-intelligent, feminine-intelligent, androgynous-intelligent, and mixed-personality pattern member. Care was taken to be sure that participants did not know each other before working together on the task. Groups were randomly assigned to either the initiating-structure or the consensus-building task condition. In both tasks, the experimenters explained the exercise and told participants that how they organized themselves and what roles they chose to play would be entirely up to them. Sessions in both tasks lasted approximately 45 minutes. In both conditions, after the task was completed, participants were asked to rate each other on perceptions of leadership using the General Leadership Impression (GLI) and rank themselves and each other in terms of leader preference. To ensure confidentiality, participants were given identification numbers (1 through 4) in place of names to report on the questionnaire and were asked to turn away from each other while completing the measures. After the questionnaires were collected, the experimenters debriefed the participants as to the true purpose of the study.

DEPENDENT MEASURES

General Leadership Impression (GLI). The GLI (Lord et al., 1984) was used to measure leadership emergence. This 5-item scale asks participants to rate the other members of the group on their contribution to the group's overall effectiveness on the activity. For example, 1 item asks, "If you had to choose a leader for a new task, how willing would you be to vote for this member as leader?" The range of responses is 1 (*nothing*) to 5 (*extreme amount*). GLI scores were calculated for each individual by averaging the ratings given by the other 3 group members. This scale has been shown to have high internal consistency reliability (Cronbach's alpha = .88) (Lord et al., 1984; Zaccaro, Foti et al., 1991).

Leadership emergence was also measured by using a ranking measure identical to the one used by Smith and Foti (1998) in their study of patterns and leadership emergence. Group members ranked themselves and each other based on their preference for individuals as leaders. Based on these rankings, ignoring the self-rating, a score was computed for the percentage of times an individual was rated by the others as number one. Thus, an individual's score could range from .00 (if no other group member ranked her number one) to .75 (when all 3 other group members saw her as number one).

RESULTS

To test the proposed hypotheses, a series of a priori contrasts were performed using an alpha level of .05.[2] Based on nonsignificant results of Levene's (1960) test of homogeneity of variances, equal variances were assumed in these analyses unless it is noted otherwise. Hypothesis 1 predicted that individuals possessing masculine-intelligent and androgynous-intelligent patterns would be rated and ranked higher on leadership than individuals possessing feminine-intelligent or mixed-personality patterns in the initiating-structure task condition. Participants with masculine-

intelligent personality patterns received significantly higher ratings on the GLI than participants with feminine-intelligent, t (96) = 2.29, $p < .05$; $d = .67$; or mixed-personality patterns, t (96) = 2.18, $p < .05$; $d = .63$. Participants with masculine-intelligent personality patterns were also ranked number one significantly more often than participants with feminine-intelligent, t (32.94) = 3.59, $p < .05$, equal variances not assumed; $d = 1.01$; and mixed-personality patterns, t (40.08) = 3.20, $p < .05$, equal variances not assumed; $d = .90$.

The results show androgynous-intelligent individuals were rated significantly higher on the GLI than feminine-intelligent individuals, t (96) = 2.19, $p < .05$; $d = .62$; and mixed-pattern individuals, t (96) = 2.08, $p < .05$; $d = .57$. Further support for this hypothesis is evident from the finding that androgynous-intelligent individuals were ranked number one significantly more often than feminine-intelligent individuals, t (36.89) = 2.28, $p < .05$, equal variances not assumed; $d = .64$; and mixed-pattern individuals, t (44.83) = 1.92, $p < .05$, equal variances not assumed; $d = .54$ in the initiating-structure task condition. Thus, Hypothesis 1 was fully supported. Table 3 contains the means and standard deviations of GLI scores and rankings for each pattern in both the initiating-structure and consensus-building conditions.

Hypothesis 2 predicted that individuals with feminine-intelligent and androgynous-intelligent patterns would be rated and ranked higher on leadership than individuals possessing masculine-intelligent or mixed-personality patterns in the consensus-building task condition. Individuals with a feminine-intelligent pattern were not rated significantly higher on the GLI than masculine-intelligent individuals, t (96) = 1.56, $p > .05$; $d = -.52$; or mixed-personality-pattern individuals, t (96) = 1.50, $p > .05$; $d = .37$, in the consensus-building task. Furthermore, feminine-intelligent individuals were not ranked number one significantly more often than masculine-intelligent individuals, t (96) = .57, $p > .05$; $d = -.15$); or mixed-personality individuals, t (96) = 1.13, $p > .05$; $d = .34$, in this condition.

The results indicate that androgynous-intelligent individuals were not rated significantly higher on the GLI than masculine-intelligent, t (96) = .32, $p > .05$; $d = .10$, but were rated significantly higher than mixed-personality individuals, t (96) = 3.40, $p < .05$; $d =$

TABLE 3: Means and Standard Deviations of GLI Scores and Rankings for all Patterns in the Initiating-Structure and Consensus-Building Task Conditions

	Initiating-Structure				*Consensus-Building*			
	GLI		*Ranking*		*GLI*		*Ranking*	
	M	SD	M	SD	M	SD	M	*SD*
Masculine	3.85	.60	.37	.33	3.71	.46	.22	.27
Feminine	3.41	.70	.11	.15	3.44	.57	.18	.28
Androgynous	3.83	.66	.25	.27	3.76	.54	.28	.25
Mixed	3.43	.73	.12	.21	3.19	.76	.10	.18
LLH	3.65	.87	.14	.28	3.28	.88	.09	.19

NOTE: $n = 50$ for each pattern; total $n = 200$. GLI = general leadership impression; LLH = low in masculinity, low in femininity, and high in intelligence.

.86, in the consensus-building task condition. Furthermore, androgynous-intelligent individuals were not ranked number one significantly more often than masculine-intelligent, $t(96) = .85$, $p > .05$; $d = .23$, but were ranked number one significantly more often than mixed-personality individuals, $t(96) = 2.54$, $p < .05$; $d = .83$. Thus, Hypothesis 2 was not supported for feminine-intelligent individuals, but partial support was found for the emergence of androgynous-intelligent individuals. Androgynous-intelligent individuals emerged as the leader more than mixed-pattern individuals but not more than masculine-intelligent individuals.

Given that intelligence has been shown to have a strong relationship with leader emergence, it is reasonable to suspect that intelligence alone, rather than in combination with masculinity and femininity, is responsible for the findings in this study. The mixed pattern contains a subset of 15 individuals with a pattern low in masculinity, low in femininity, and high in intelligence (LLH), making it possible to compare individuals with the hypothesized patterns to individuals with a pattern high only in intelligence. Thus, exploratory analyses were performed by repeating the contrasts for which significant results were found above and substituting the LLHs for the inclusive mixed pattern.

Contrasting with the results found in comparison to individuals in the inclusive mixed pattern in Hypothesis 1, in the initiating-structure condition, masculine-intelligent individuals were not rated

significantly higher on the GLI than LLH-pattern individuals, t (95) = .70, $p > .05$; $d = .30$. However, masculine-intelligent individuals were ranked number one significantly more often than LLH-pattern individuals, t (11.07) = 1.80, $p < .05$, equal variances not assumed; $d = .72$. Similar results were found for the comparison of androgynous-intelligent individuals and the LLH-pattern individuals in the initiating-structure condition. Androgynous-intelligent individuals were not rated significantly higher on the GLI than LLH-pattern individuals, t (95) = .63, $p > .05$; $d = .25$. In addition, androgynous-intelligent individuals were not ranked number one significantly more often than LLH-pattern individuals, t (9.29) = .89, $p > .05$, equal variances not assumed; $d = .40$. Low power in these comparisons due to the small sample size in the LLH pattern ($N = 7$) may have led to insignificant findings. However, although inspection of the means and effect sizes suggests that having high intelligence alone leads to higher emergence scores than having the inclusive mixed pattern, the emergence scores gained by having high intelligence alone were not as high as having high intelligence in combination with high masculinity and low femininity in the masculine-intelligent pattern or having high intelligence in combination with high masculinity and high femininity in the androgynous-intelligent pattern.

Consistent with the results found in comparison to individuals in the inclusive mixed pattern in Hypothesis 2, in the consensus-building condition, androgynous-intelligent individuals were rated significantly higher on the GLI than LLH-pattern individuals, t (95) = 2.02, $p < .05$; $d = .76$, providing some support for Hypothesis 2. In addition, androgynous-intelligent individuals were ranked number one significantly more often than LLH individuals, t (95) = 1.82, $p < .05$; $d = .80$. An inspection of the means and effect sizes suggests that having high intelligence alone did not lead to higher emergence scores than having the inclusive mixed pattern, and having high intelligence in combination with high masculinity and high femininity in the androgynous-intelligent pattern resulted in higher emergence scores than having high intelligence alone.

DISCUSSION

The current study contributes to an understanding of how gender roles affect leadership emergence in all-female leaderless work groups. We address the following research question: How do gender role and task type influence the perception of leadership by fellow group members? The hypotheses draw from the literature on gender-role congruency theory and Bem's conception of sex-role stereotypes (Bem, 1975) and predicted that individuals with personality patterns congruent with the gender orientation of the task type would emerge as leaders. A primary aim of this study was to examine the effect of gender-role adaptability on leadership perceptions by exploring the emergence of androgynous individuals across gender-oriented task conditions. The findings have important implications for how gender role influences the identification of leaders in organizations.

Perhaps the most interesting finding of this study is that possession of an androgynous-intelligent personality led to the perception of leadership in both the consensus-building and the initiating-structure task conditions, fully supporting Hypothesis 1 and partially supporting Hypothesis 2. Although an all-female sample was used in the present study, the finding that androgynous-intelligent individuals emerged is congruent with Kolb's (1997) finding that androgynous individuals were described as leaders with greater frequency than either feminine or undifferentiated individuals, and it extends this finding from the gender-neutral situation in her study to both the initiating-structure and consensus-building tasks studied in this research. This makes sense given Bem's (1974) argument that androgynous individuals, who have high levels of both masculine and feminine attributes (and high levels of intelligence in this study), are able to display behavioral flexibility and adapt to the demands of the situation.

The relationship between androgyny and leadership emergence has important implications for women in the workplace. This is especially true as women increasingly aspire to more male-stereotyped positions (Konrad, Ritchie, Lieb, & Corrigall, 2000). Recent

research suggests that current conceptualizations of leadership are expanding to include both masculine and feminine characteristics (Diekman & Eagly, 2000; Moss & Kent, 1996). However, our findings suggest that femininity is simply tolerated when in conjunction with masculinity because high levels of femininity and intelligence only lead to leadership emergence when combined with high levels of masculinity in the androgynous-intelligent pattern. This suggests that women leaders move toward a more androgynous role by including masculine behaviors in addition to feminine behaviors in their leadership style. Although the inclusion of more masculine attributes violates gender norms, this may lead to positive leader outcomes if women combine increased masculinity with legitimacy (Kawakami, White, & Langer, 2000; Ridgeway, 2001). Furthermore, there is evidence that androgyny may be related to transformational leadership (Hall et al., 1998), and transformational leader behaviors as well as traditional transactional leader behaviors are essential to effective leadership (Bass, 1985, 1990).

Overall, masculine-intelligent and androgynous-intelligent individuals emerged as leaders, but feminine-intelligent individuals did not. Consistent with Hypothesis 1, masculine-intelligent individuals were rated and ranked higher on leadership than feminine-intelligent and mixed-pattern individuals in the initiating-structure task. However, contrary to Hypothesis 2, feminine-intelligent individuals did not emerge in the consensus-building task condition. This is consistent with Heilman, Block, Simon, and Martell's (1989) finding that stereotypes of women, in general, are far less consistent with descriptions of successful managers than are stereotypes of men in general. Feminine attributes may be inconsistent with followers' implicit leadership theories, whereas masculine attributes match followers' prototypes for leaders (Baumgardner, Lord, & Maher, 1991). In addition, it is possible that leadership situations, whether initiating structure or building consensus, are associated with masculine prototypes. Thus, asking individuals about leadership even on a more feminine task may activate a masculine prototype rather than a feminine one.

Lord and Emrich (2001) asserted that perceivers may generalize from small amounts of known information about others to forming

expectations and judgments about unobserved behaviors or traits. Hall and colleagues (1998) found that participants in their study were able to provide ratings of inferred behavioral capabilities of other group members with whom they had relatively short interactions. These inferred capabilities mediated the relationship between sex, flexibility, and perceptions of leadership. Because it is highly unlikely that these ratings resulted from actual information that participants acquired from those they were rating, these authors suggest that the ratings were more likely due to a matching process with implicit theories or prototypes. Thus, in the current study, it is possible that masculine-intelligent group members displayed small amounts of salient behaviors that led other group members to categorize that person as leader-like, whereas the behaviors displayed by feminine-intelligent group members did not lead to such generalization.

Eagly and Karau's (1991) meta-analysis suggested that in accordance with gender-role theory, females are more likely to emerge as leaders in socially oriented groups. Hall et al. (1998) explained weak support for the hypothesized effect of the sex-role congruence of the task as potentially due to a lack of overlap between the behavioral demands of the tasks and the feminine characteristic of "consideration." To more thoroughly facilitate the feminine-oriented behavioral task demands in the current study, a consensus-building task was used that requires participants to come to agreement about an optimal solution (Huston-Comeaux & Kelly, 1996). Although the pilot study suggested that the task was perceived as building consensus, the consensus-building manipulation also may not have been "feminine" enough to support this theory. Because neither the consideration nor the consensus-building task manipulations produced a significant effect of a feminine leadership style, one wonders whether there exists a feminine task with any generalizability to organizational situations.

Due to the likelihood that social cohesion is more important to groups that have to maintain themselves over time, feminine leadership attributes may be of greater value to these groups than to those groups that meet only once, like those in the present study (Carli & Eagly, 1999; Eagly & Karau, 1991). It is possible that the

combination of characteristics in the masculine-intelligent personality pattern became salient to followers during the short amount of interaction time in this study's tasks, leading to initial perceptions of leadership, but these perceptions may not persist over time. Instead, feminine attributes such as nurturance and consideration may become more salient over several interactions and ultimately may be more instrumental in sustaining work groups.

The replication of other research on traits and leadership that have shown significant relationships between masculinity but not femininity and leadership ratings may also be due to a reliance on the BSRI (Bem, 1974) as the primary measure of gender role in these studies. The BSRI was developed based on males' and females' judgment of the social desirability of traits for men and women more than 25 years ago. Because perceptions of women have changed over time, the BSRI may no longer capture the characteristics that are currently socially desirable for women or men (Hoffman & Borders, 2001). Although we attempted to overcome this potential limitation by adding 5 additional items to the BSRI, the addition of these items did not change the way that participants were classified into patterns. However, additional modification to the BSRI may be beneficial in future studies of gender and leadership.

To determine whether intelligence alone was responsible for the emergence of masculine-intelligent- and androgynous-intelligent-pattern individuals, the hypothesis tests were repeated comparing these patterns to the LLH subset of mixed-pattern individuals. The expected patterns emerged more often than the LLH pattern in three of the six comparisons. One explanation for the failure of the expected pattern to emerge more than the LLH pattern in half of the comparisons is that the small sample size in the LLH pattern may have reduced the power to find significant differences in these tests. It is also important to recognize that even when the mean differences were not significant, the means for the masculine-intelligent pattern and the androgynous-intelligent pattern were still higher than the means for LLH pattern and the effect sizes were small to medium (Cohen, 1992). It is particularly interesting that androgynous-intelligent-pattern individuals emerged (both rating

and ranking) more than LLH-pattern individuals in the consensus-building task condition because the comparison between the androgynous-intelligent pattern (HHH) and the LLH pattern compares the most extreme groups, providing the most stringent test.

These findings suggest that although intelligence is important for leadership emergence, it has more of an influence on leadership perceptions when in concert with masculinity (e.g., the masculine-intelligent pattern) or masculinity and femininity (e.g., the androgynous-intelligent pattern). In addition, the finding that masculinity is related to leadership emergence in both task conditions (consensus-building task: $r = .30$, $p < .01$; initiating-structure task: $r = .31$, $p < .01$) suggests that masculinity is also important for the perception of leadership. Furthermore, the finding that masculine-intelligent individuals emerged and feminine-intelligent individuals did not bolsters the argument that more than just intelligence is operating here.

LIMITATIONS AND FUTURE RESEARCH

This study made important contributions to the literature on how gender role and task type influence the perception of leadership. The design was not without limitations, however, and the findings lead to further unanswered questions. To control for the effects of sex, only female participants were utilized, creating a lack of generalizability of our findings. It would be useful to repeat this study in a male sample and compare the results to see whether sex interacts with gender to produce different leadership perceptions.

According to Lord and Maher (1991), leadership results as an outcome of traits, behaviors, and outcomes produced by the leader and perceived by the followers. More recent theorizing by Lord and his associates (Lord & Emrich, 2001; Lord, Brown, & Harvey, 2001) have called for a more dynamic conceptualization of leadership that goes beyond traits and examines the interaction of many contextual and social factors that affect the cognitive and affective responses of followers (Lord & Smith, 1998; Zaccaro, Gilbert, Thor, & Mumford, 1991). The current study represents a first step in the direction of a more holistic view of leadership by examining

individual differences using a pattern approach and by exploring task type as a moderator of gender and leadership perceptions. However, more extensive efforts toward a dynamic view of leadership are necessary, including the exploration of other external factors (e.g., culture) that may affect the perception of leadership as well as an exploration of the cognitive processes of emergent leaders over time.

Future replications of this study would benefit from including a measure of behaviors produced by group members. For example, frequency of task-relevant communication has been linked to leadership emergence (Hawkins, 1995) and is readily observable to both followers and researchers. Measuring this would allow for a comparison between self-reported traits and actual behaviors produced. Considering Ross and Offermann's (1997) finding that leader scores on transformational leadership were correlated with subordinate satisfaction but not with performance, it may also be important to study the link between initial perceptions of leadership emergence and perceptions and objective measures of leadership effectiveness. It is possible that the salience of the masculine-intelligent pattern is related to initial perceptions of leadership but that this pattern does not lead to perceptions of effectiveness or may not be related to leadership over several interactions. An assessment of outcomes would provide insight into the link between leadership emergence and effectiveness.

Researchers should continue to test the applicability of feminine attributes to perceptions of leadership by attempting to find a stronger manipulation of a feminine task applicable to organizational settings and by exploring the relationship between the feminine-intelligent pattern and other predictors of leadership. Finally, these findings should be replicated in an organizational setting using self-managed work teams, allowing for a test of the generalizability of these findings in mixed-sex groups, as same-sex groups in organizations are rare; also, Deal and Stevenson (1998) found that the sex of the perceiver affects his or her perceptions of women managers. This field application would be the first step toward generalizing and applying the findings of this study.

NOTES

1. The LLH subset of the mixed pattern was included as a special case of the mixed pattern that is high only in intelligence for the purpose of exploring the possibility that intelligence alone, rather than in combination with gender role, is responsible for leadership emergence.

2. Due to the directional nature of the hypotheses, one-tailed significance tests were examined.

REFERENCES

Anderson, C. R., & Schneier, C. E. (1978). Locus of control, leader behavior, and leader performance among management students. *Academy of Management Journal*, *21*, 690-698.

Bass, B. M. (1985). *Leadership and performance beyond expectations*. New York: Free Press.

Bass, B. M. (1990). *Bass and Stogdill's handbook of leadership: A survey of theory and leadership*. New York: Free Press.

Baumgardner, T. L., Lord, R. G., & Maher, K. J. (1991) Perceptions of women in management. In R. G. Lord & K. J. Maher (Eds.), *Leadership and information processing: Linking perceptions and performance* (pp. 95-113). Boston: Unwin Hyman.

Bem, S. L. (1974). The measurement of psychological androgyny. *Journal of Consulting and Clinical Psychology*, *42*, 155-162.

Bem, S. L. (1975). Sex-role adaptability: One consequence of psychological androgyny. *Journal of Personality and Social Psychology*, *31*, 634-643.

Bem, S. L., & Lenney, E. (1976). Sex typing and the avoidance of cross-sex behavior. *Journal of Personality and Social Psychology*, *33*, 48-54.

Berdahl, J. L. (1996). Gender and leadership in work groups: Six alternative models. *Leadership Quarterly*, *7*, 20-40.

Carbonell, J. L. (1984). Sex roles and leadership revisited. *Journal of Applied Psychology*, *69*, 44-49.

Carli, L. L., & Eagly, A. H. (1999). Gender effects on social influence and emergent leadership. In G. N. Powell (Ed.), *Handbook of gender and work* (pp. 203-222). Thousand Oaks, CA: Sage.

Cohen, J. (1992). A power primer. *Psychological Bulletin*, *112*, 155-159.

Davis, B. L., Skube, C. J., Hellervik, L. W., Gebelein, S. H., & Sheard, J. L. (1996). *Successful managers's handbook*. Minneapolis, MN: Personnel Decisions International.

Deal, J. J., & Stevenson, M. A. (1998). Perceptions of female and male managers in the 1990s: Plus ça changé . . . *Sex Roles*, *38*, 287-300.

Diekman, A. B., & Eagly, A. H. (2000). Stereotypes as dynamic constructs: Women and men of the past, present, and future. *Personality and Social Psychology Bulletin*, *26*, 1171-1188.

Dodrill, C. B. (1981). An economical method for the evaluation of general intelligence in adults. *Journal of Consulting and Clinical Psychology*, *49*, 668-673.

Dodrill, C. B. (1983). Long-term reliability of the Wonderlic Personnel Test. *Journal of Consulting and Clinical Psychology*, *51*, 316-317.

Dodrill, C. B., & Warner, M. H. (1988). Further studies of the Wonderlic Personnel Test as a brief measure of intelligence. *Journal of Consulting and Clinical Psychology*, *56*, 145-147.

Eagly, A. H. (1987). *Sex differences in social behavior: A social role interpretation*. Hillsdale, NJ: Lawrence Erlbaum.

Eagly, A. H., & Johnson, B. T. (1990). Gender and leadership style: A meta-analysis. *Psychological Bulletin*, *2*, 233-256.

Eagly, A. H., & Karau, S. J. (1991). Gender and the emergence of leaders: A meta-analysis. *Journal of Personality and Social Psychology*, *60*, 685-710.

Eagly, A. H., Makhijani, M. G., & Klonsky, B. G. (1992). Gender and the evaluation of leaders: A meta-analysis. *Psychological Bulletin*, *111*, 3-22.

Fleischer, R. A., & Chertkoff, J. M. (1986). Effects of dominance and sex on leader selection in dyadic work groups. *Journal of Personality and Social Psychology*, *50*, 94-99.

Gibbs, J. I. (1982). Personality patterns of delinquent females: Ethnic and sociocultural variations. *Journal of Clinical Psychology*, *38*, 198-206.

Goeke, K. R., Tosi, D. J., & Eshbaugh, D. M. (1993). Personality patterns of male felons in a correctional halfway house setting: An MMPI typology analysis. *Journal of Clinical Psychology*, *49*, 413-422.

Goktepe, J. R., & Schneier, C. E. (1989). Role of sex, gender roles, and attraction in predicting emergent leaders. *Journal of Applied Psychology*, *74*, 165-167.

Hall, R. J., Workman, J. W., & Marchioro, C. A. (1998). Sex, task, and behavioral flexibility effects on leadership perceptions. *Organizational Behavior and Human Decision Processes*, *74*, 1-32.

Hawkins, K. W. (1995). Effects of gender and communication content on leadership emergence in small task-oriented groups. *Small Group Research*, *26*, 234-249.

Hegstrom, J. L., & Griffith, W. I. (1992). Dominance, sex, and leader emergence. *Sex Roles*, *27*, 209-220.

Heilman, M. E., Block, C. J., Simon, M. C., & Martell, R. F. (1989). Has anything changed? Current characterizations of men, women, and managers. *Journal of Applied Psychology*, *74*, 935-942.

Hoffman, R. M., & Borders, D. (2001). Twenty-five years after the Bem Sex Role Inventory: A reassessment and new issues regarding classification variability. *Measurement and Evaluation in Counseling and Development*, *34*, 39-55.

House, A., Dallinger, J. M., & Kilgallen, D. (1998). Androgyny and rhetorical sensitivity: The connection of gender and communicator style. *Communication Reports*, *11*, 11-20.

Huston-Comeaux, S. L., & Kelly, J. R. (1996). Sex differences in interaction style and group task performance: The process-performance relationship. *Journal of Social Behavior and Personality*, *11*, 255-275.

Karakowsky, L., & Siegel, J. P. (1999). The effects of proportional representation and gender orientation of the task on emergent leadership in mixed-gender work groups. *Journal of Applied Psychology*, *84*, 620-631.

Kawakami, C., White, J. B., & Langer, E. J. (2000). Mindful and masculine: Freeing women leaders from the constraints of gender roles. *Journal of Social Issues*, *56*, 49-63.

Kent, R. L., & Moss, S. E. (1994). Effects of sex and gender role on leader emergence. *Academy of Management Journal*, *37*, 1335-1346.

Kolb, J. A. (1997). Are we still stereotyping leadership? A look at gender and other predictors of leader emergence. *Small Group Research*, *28*, 370-393.

Konrad, A. M., & Ritchie, E., Jr., Lieb, P., & Corrigall, E. (2000). Sex differences and similarities in job attribute preferences: A meta-analysis. *Psychological Bulletin*, *126*, 593-641.

Levene, H. (1960). Test of homogeneity of variances. In I. Olkin, S. Ghurye, W. Hoeffding, W. Madow, & H. Mann (Eds.), *Contributions to probability and statistics: Essays in honor of Harold Hotelling* (pp. 278-292). Palo Alto, CA: Stanford University Press.

Lord, R. G., Brown, D. J., & Harvey, J. L. (2001). System constraints on leadership perceptions, behavior, and influence: An example of connectionist level process. In M. A. Hogg & R. S. Tindale (Eds.), *Blackwell handbook of social psychology, Vol. 3: Group processes*. Oxford, UK: Basil Blackwell.

Lord, R. G., De Vader, C. L., & Alliger, G. M. (1986). A meta-analysis of the relation between personality traits and leadership perceptions: An application of validity generalization procedures. *Journal of Applied Psychology*, *71*, 402-410.

Lord, R. G., & Emrich, C. G. (2001). Thinking outside the box by looking inside the box: Extending the cognitive revolution in leadership research. *Leadership Quarterly*, *11*, 551-579.

Lord, R. G., Foti, R. J., & De Vader, C. L. (1984). A test of leadership categorization theory: Internal structure, information processing, and leadership perceptions. *Organizational Behavior and Human Performance*, *34*, 343-378.

Lord, R. G., & Maher, K. J. (1991). *Leadership and information processing: Linking perceptions and performance*. Boston: Unwin Hyman.

Lord, R. G., & Smith, W. G. (1998). Leadership and the changing nature of work performance. In D. R. Ilgen & E. D. Pulakos (Eds.), *The changing nature of work performance: Implications for staffing, personnel decisions, and development*. San Francisco: Jossey-Bass.

Luthar, H. K. (1996). Gender differences in evaluation of performance and leadership ability: Autocratic vs. democratic managers. *Sex Roles*, *35*, 337-361.

Magnusson, D. (1995). Individual development: A holistic, integrated model. In P. Moen, G. L. Elder, Jr., & K. Luscher (Eds.), *Examining lives in context* (pp. 19-60). Washington, DC: American Psychological Association.

McClelland, D. C., & Boyatzis, R. E. (1982). Leadership motive pattern and long-term success in management. *Journal of Applied Psychology*, *67*, 737-743.

McGrath, J. E. (1984). *Groups: Interaction and performance*. Englewood Cliffs, NJ: Prentice Hall.

Megargee, E. I. (1969). Influence of sex roles on the manifestation of leadership. *Journal of Applied Psychology*, *53*, 377-382.

Moss, S. E., & Kent, R. L. (1996). Gender and gender-role categorization of emergent leaders: A critical review and comprehensive analysis. *Sex Roles*, *35*, 79-96.

Motowidlo, S. J. (1981). A scoring procedure for sex-role orientation based on profile similarity indices. *Educational and Psychological Measurement*, *41*, 735-745.

Powell, G. N., & Butterfield, D. A., (1979). Sex, attributions, and leadership: A brief review. *Psychological Reports*, *51*, 1171-1174.

Ridgeway, C. L. (2001). Gender, status, and leadership. *Journal of Social Issues*, *57*, 637-655.

Ross, S. M., & Offermann, L. R. (1997). Transformational leaders: Measurement of personality attributes and work group performance. *Personality and Social Psychology Bulletin*, *10*, 1078-1086.

Schneier, C. E., & Bartol, K. M. (1980). Sex effects in emergent leadership. *Journal of Applied Psychology*, *65*, 341-345.

Smith, J. A., & Foti, R. J. (1998). A pattern approach to the study of leadership emergence. *Leadership Quarterly*, *9*, 147-160.

Sorrentino, R. M., & Field, N. (1986). Emergent leadership over time: The functional value of positive motivation. *Journal of Personality and Social Psychology*, *50*,1091-1099.

Spence, J. T., Helmreich, R. L., & Stapp, J. (1975). Ratings of self and peers on sex-role attributes and their relation to self-esteem and conceptions of masculinity and femininity. *Journal of Personality and Social Psychology*, *32*, 29-39.

Tango, R. A., & Uziuban, C. U. (1984). The use of personality components in the interpretation of career indecision. *Journal of College Student Personnel*, *25*, 509-512.

Wentworth, D. K., & Anderson, L. R. (1984). Emergent leadership as a function of sex and task type. *Sex Roles*, *11*, 513-524.

Wonderlic, E. F. (1983). *Wonderlic Personnel Test Manual*. Northfield, IL: E. F. Wonderlic & Associates.

Zaccaro, S. J., Foti, R. J., & Kenny, D. A. (1991). Self-monitoring and trait-based variance in leadership: An investigation of leader flexibility across multiple group situations. *Journal of Applied Psychology*, *76*, 308-315.

Zaccaro, S. J., Gilbert, J. A., Thor, K. K., & Mumford, M. D. (1991). Leadership and social intelligence: Linking social perceptiveness and behavioral flexibility to leader effectiveness. *Leadership Quarterly*, *2*, 317-342.

Amy B. Gershenoff (M.S., Virginia Tech, 1999) is a Ph.D. student in industrial/organizational psychology at Virginia Tech. Her general areas of interest are in individual differences and leadership, with a focus on gender roles and transformational leadership. Her doctoral research concerns the relationship between individual differences, context, and transformational behavior in leadership emergence.

Roseanne J. Foti (Ph.D., University of Akron, 1984), associate professor of psychology, specializes in the area of industrial/organizational psychology. Her primary research interests are in the area of leadership and include such specific topics as leadership emergence and perception of leadership characteristics. Dr. Foti is also involved in research on information-processing strategy and its effect on performance-rating accuracy and rater training. Her research may be found in such journals as Organizational Behavior and Human Design.