

Gender Differences in Leadership Aspirations

Ming Singer*

Department of Psychology
University of Canterbury

This study examined gender differences in leadership aspirations within the theoretical frameworks of instrumentality-valence and self-efficacy models of occupational decision making. Altogether 114 male and 106 female final year university students completed a questionnaire measuring (a) thirteen instrumentality-valence expectancies for 13 leadership position outcomes; (b) three self-efficacy expectancies of "effectiveness," "ability-match" and "ease of success"; (c) attributions of leadership performance requirements; and (d) an overall leadership aspiration rating. The results showed that compared with females, males had stronger aspirations for being in leadership positions. They also had higher self-efficacy expectancies. Leadership valence scores significantly accounted for the variances in overall leadership aspiration ratings for both samples; while only the "ability-match" self-efficacy made a significant contribution to explaining females' leadership aspirations. In addition, for males, the valence and self-efficacy expectancies were affected by their attributions of leadership requirements to the dispositional factor of "competence"; for females, these expectancies were determined by both the dispositional attribution of "intelligence" and the situational attribution of "favourable organisational characteristics." The implications of the findings for understanding the underlying processes of gender differences in vocational decision making were discussed.

Gender Differences in Leadership Aspirations

The psychological literature of gender differences in leadership has focused on the differences in leadership style, leadership effectiveness as well as subordinate satisfaction (e.g., Dobbins & Platz, 1986; Kushell & Newton, 1986; Offermann, 1986; Statham, 1987; Winther & Green, 1987). Little attention has been given to gender differences in leadership aspirations. Two approaches are plausible in exploring aspirations to leadership. The first approach would identify specific personality traits that are predictive of an

individual's level of leadership aspirations. The cognitive approach would conceptualise leadership aspirations as a special case of career choice, the various models of career choice behaviour could then be applied to identify the underlying cognitive correlates of leadership aspirations. This study took the latter approach by examining gender differences in leadership aspirations within the theoretical frameworks of valence model, self-efficacy model, as well as attribution theory.

The Theoretical Frameworks

The expectancy-valence model (Vroom, 1964; Mitchell & Beach, 1976; Mitchell, 1980) has frequently been applied to research in occupational preference and choice. This model makes the assumption that an individual's occupational choice is a joint function of the perceived instrumentality of an occupation in the provision of certain outcomes (e.g., pay, social contacts, achievement fulfillment) and the perceived desirability (or valence) of these outcomes

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Requests for reprints should be addressed to Dr M. Singer, Department of Psychology, University of Canterbury, Christchurch, New Zealand.

to the individual. This is summarised by the equation:

$$V_O = \sum_{k=1}^n I_k \cdot V_k$$

where V_O = the valence of occupation O
 I_k = the instrumentality of outcome k
 V_k = the valence for outcome k

This model was originally intended for within-subjects analysis of occupational choice (Mitchell, 1974). However, a number of studies have applied the model in an across-subjects design whereby a $\sum I \cdot V$ is first generated for each subject with reference to a single occupation or behaviour, the score is then correlated across subjects with a criterion such as overall preference for the occupation or behaviour. In general, the within-subjects analysis has been shown to make better predictions of occupational choices than an across-subjects approach (Kopelman, 1977; Muchinsky, 1977).

Brief, Van Sell, and Aldag (1979) have integrated the expectancy-valence model with Super's (1963; 1969) vocational self-concept theory in accounting for the vocational decision making process among women. Brief et al. (1979) argued that an individual's vocational self-concept is a result of the anticipatory socialisation process (e.g., Feldman, 1976; Terborg, 1977; Van Maanen, 1975) when the individual forms expectations about jobs before entering an organisation. In the job search process, these self-concepts and job expectations determine the perceived desirability and instrumentality of possible job outcomes. Within this framework, gender differences in career choice could be explained in terms of sex differences in vocational socialisation which lead to the formation of differential self-concepts and job expectations and consequently different valence and instrumentality expectancies.

Quite independently, Bandura's (1977; 1982) self-efficacy theory has recently been applied to women's career choice processes. Hackett and Betz (1981) postulated that differential sex-role socialisation process results in different career-related self-

efficacy expectancies which in turn influence women's occupational choices and preferences. Several studies have provided support for this postulation. Betz and Hackett (1981) found that women's self-efficacy expectancies were lower than men's for occupations traditionally reserved for men, and were higher than men's for traditional "female-jobs." Lent, Brown, and Larkin (1984, 1985) showed that self-efficacy expectancies were predictive of academic achievements and the degree of persistence of science and engineering students. However, no gender difference in self-efficacy expectancies was found.

At the theoretical level, although the self-efficacy construct differs from Vroom's "Type I effort-performance expectancy" (Bandura, 1986, p. 371), self-efficacy theory's concepts of "expectancy of success" and "outcome expectancy" closely resemble the "Type II performance-outcome expectancy" or the "instrumentality" construct in the expectancy-valence model. The similarities between Bandura's outcome expectancy and aspects of the expectancy models have also been noted previously (Betz & Hackett, 1986, p. 281; Kirsch, 1985). Wheeler (1983) directly compared the two theories in predicting gender differences in occupational preference. Occupational self-efficacy with reference to 17 occupations was assessed in terms of perceived ability-match and perceived ease of success. The results of the regression analysis showed that in predicting the overall occupational preference rating, the β -weights of ability-match rating was higher than those of occupational valence score. Further, ease of success rating did not significantly predict overall occupational preference. Wheeler concluded that "a more complete model of occupational preference would need to include elements of occupational valence and self-efficacy perceptions" (1983; p. 78). In the context of self-efficacy model, this study examined whether self-efficacy perceptions are predictive of gender differences in leadership aspirations.

In social cognition, the methodology of attribution theory has been a major vehicle in research exploring the contents of cognitive schema or the links between cognition

and behaviour (e.g., Ross, 1977). Cognitive schemata about specific events or concepts are formed as a result of previous relevant learning or socialisation experiences. They in turn serve to guide subsequent information processing and decision-making. With reference to the concept of leadership, an individual's vocational socialisation leads to the formation of a "leadership schema" (e.g., Calder, 1982; Pfeffer, 1977) which encompasses the individual's "implicit leadership theory" (e.g., Eden & Leviatan, 1975). An individual's implicit leadership theory refers to the theory or beliefs held by the individual about how leaders behave in general and what is expected of leaders. Such beliefs have been shown to have a bias or distorting effect on an individual's perception and description of leaders' actual behaviour (e.g., Gioia & Sims, 1985; Larson, Lingle, & Scerbo, 1984; Lord, 1977; Lord, Binning, Rush, & Thomas, 1978; Rush, Thomas, & Lord, 1977). This study also explored the specific aspect of the leadership schema pertaining to an individual's preconceptions about what makes an effective leader. Based on previous discussion, gender differences in such preconceptions were expected. More importantly, the effects of such preconceptions on an individual's valence and self-efficacy perceptions are also explored.

Development of the Hypotheses

The present study addresses the vocational decision making processes with reference to leadership positions. The relative contributions of expectancy-valence and self-efficacy models in predicting possible gender differences in leadership aspirations are assessed. In addition, in the context of leadership aspirations, this study also examined the effect of the task requirements perceived by the individual on both instrumentality-valence and self-efficacy expectancies. This represents a significant theoretical issue, but has remained largely unexamined in the empirical literature. With reference to the valence model, Brief, Van Sell and Aldag (1979) argued that an individual's instrumentality and valence perceptions of specific jobs reflect the individual's expectations about the jobs formulated as a result of the anticipatory

socialisation process. Self-efficacy theory has also explicitly argued that self-efficacy expectancies are dependent on an individual's perceived task demands, rather than an "autistic" entity independent of such perceptions of task requirements (Bandura, 1986, p. 370). Owing to gender differences in vocational socialisation, both models predict that males and females would develop differential perceptions or attributions about performance requirements demanded by specific occupations. Although Ayres (1980), and Hackett, Betz, and Doty (1985) have considered task demands in their measures of occupational self-efficacy, neither of the studies investigated possible gender differences in attributions about task demands and the consequences of these differences for instrumentality-valence and self-efficacy perceptions. In the present study, individuals' perceptions of the performance requirements demanded by effective leadership were examined from the conceptual framework of attribution theory.

To sum, three hypotheses were formulated and tested:

Hypothesis 1: there would be significant gender differences in (a) overall leadership aspirations, (b) the instrumentality-valence ($V_L = \sum I \cdot V$) and self-efficacy expectancies and (c) the attributions of performance requirements for effective leadership.

Hypothesis 2: the variance in overall leadership aspiration ratings could be explained by both instrumentality-valence and self-efficacy expectations.

Hypothesis 3: the variances in ratings of instrumentality-valence and self-efficacy expectancies could be explained by attributions of leadership performance requirements.

Method

Subjects

The research sample consisted of 220 final year undergraduate students in the Departments of Business Administration, Accountancy, and Political Science at the University of Canterbury. There were 114 males and 106 females with an age range between 19 to 35 years.

Stimulus Material and Procedure

A questionnaire was designed to assess (a) overall aspirations for leadership positions, (b)

instrumentality-valence perceptions for 13 outcomes of leadership, (c) self-efficacy perceptions, and (d) attributions of performance requirements for effective leadership.

Overall leadership aspirations were assessed by the item: "How much would you like to be in a leadership position?" Subjects' responses were recorded on a 7-point rating scale (1 = not at all; 4 = moderately; 7 = very much).

An independent group of eight postgraduate students (3 males and 5 females) in organisational psychology were asked to think of possible outcomes of being in a leadership position. These students were familiar with the psychological literature on leadership. Mitchell (1980) has reviewed studies on the most appropriate number of outcomes to use in applying valence model to predict occupational preference. It was concluded that the best research results were obtained by using between 10 to 15 outcomes (p. 301). In this study, thirteen outcomes were generated (see Table 2). Subjects were required to go through each outcome twice to make two ratings: (a) the "instrumentality rating," "How likely will the leadership position be in helping you to obtain each of the following outcomes?", and (b) "the valence rating," "How desirable is each of the following outcomes to you as a person?" Perceived valence was measured by "desirability" because several studies have shown that when valence is measured by "desirability" rather than "importance", better predictions were observed (e.g., Connolly, 1976; Schwab, Olian-Gottlieb, & Heneman, 1979).

Three items measured self-efficacy expectancies: (a) the "effectiveness" self-efficacy rating, "If you were in a leadership position, how effective would you be as a leader?", (b) the "ability-match" self-efficacy rating, "How well does your own ability fit requirements for leadership position?", and (c) the "ease of success" self-efficacy rating, "how easy would it be for you to succeed in a leadership position?"

The attributions of leadership requirements were assessed by six factors: "the personality traits of the leader," "the intelligence of the leader," "the competence of the leader" (the three dispositional factors), "the support from subordinates," "favourable organisational characteristics," and "factors beyond one's control such as luck" (the three situational factors). The three dispositional factors were selected as they represent the major dimensions of leader attributes conceptualised in current leadership theories (e.g., Fiedler's 1986 cognitive resources theory, Bass' 1985 transformational leadership theory). The two situational factors of "subordinate support" and "favorable organisational

characteristics" were identified as the situational controls in the contingency model of leadership (Fiedler, 1978). "Factors beyond one's control" is one of the most frequently used dimension of external-situational variables in causal attribution research (e.g., Weiner, 1979). Subjects were required to rate each of the six factors according to their own views on "the importance of each of the factors in making a person an effective leader." A 7-point rating scale was used (1 = not at all important, 7 = extremely important).

Results

Hypothesis 1:

Table 1 presents the mean ratings of overall leadership aspirations, instrumentality-valence and self-efficacy expectancies, as well as attributions of leadership requirements. A *t*-test for independent groups was performed to compare the differences in mean ratings for the male and female samples. As hypothesised, males had stronger aspirations for leadership positions (5.38) than females (5.01), $t(218) = 2.13, p < .05$. No gender difference was observed for the overall leadership valence score

$$(V_L) = \frac{\sum I_n \cdot V_n}{n = 1}$$

The individual leadership valence scores for each of the 13 outcomes are presented in Table 2. The only significant gender difference was found for the outcome "being in a position of power and authority." Males reported a higher valence score (26.11) than females (22.79), $t = 2.11, p < .05$.

Gender differences were found on all three self-efficacy ratings. As expected, males had higher self-efficacy expectancies than females on all three dimensions. More specifically, compared with females, males expected themselves to be more effective (5.14 vs. 4.69; $t = 2.26, p < .05$) as leaders, to have better ability-match (4.93 vs. 4.45, $t = 2.69, p < .01$); and to succeed much more easily as leaders (4.66 vs. 4.25, $t = 2.23, p < .05$).

Males and females also had significantly different preconceptions about the performance requirements for effective leadership, although both samples agreed that

Table 1: Mean Ratings by Sex of Subjects

| | Male (N = 114) | | Female (N = 106) | | t (df = 218) |
|--|-------------------|----------|---------------------|----------|-----------------|
| Overall leadership aspiration rating | 5.38 | (1.30) | 5.01 | (1.26) | 2.13* |
| Leadership valence | 333.20 | (122.23) | 326.14 | (103.79) | .46 |
| "Effectiveness" self-efficacy | 5.14 | (1.40) | 4.69 | (1.44) | 2.26* |
| "Ability-match" self-efficacy | 4.93 | (1.37) | 4.45 | (1.33) | 2.69** |
| "Ease of success" self-efficacy | 4.66 | (1.37) | 4.25 | (1.31) | 2.23* |
| <i>Attributions of Leadership Requirements</i> | | | | | |
| Personality traits | 5.88 | (1.30) | 6.21 | (.99) | -2.71** |
| Intelligence | 5.09 | (1.27) | 5.55 | (1.21) | -2.68** |
| Competence | 6.03 | (1.14) | 6.34 | (.91) | -2.10* |
| Subordinate support | 5.78 | (1.19) | 6.11 | (.85) | -2.24* |
| Favourable organisational characteristics | 5.04 | (1.60) | 5.33 | (1.38) | -2.05* |
| Factors beyond control | 3.47 | (1.79) | 3.78 | (1.63) | -1.37 |

SDs in parentheses

* $p < .05$ ** $p < .01$ Table 2: Mean Scores of Leadership Valence ($V_L = \sum I.V$) for each Outcome and β -Weights for "Overall Leadership Aspiration Rating"

| Outcomes | $V_L = \sum_{n=1}^{13} I_n \cdot V_n$ | | t (df=218) | β -weights for "overall leadership preference rating" | |
|---|---------------------------------------|--------------------|---------------|---|--------------------|
| | Males (N=114) | Females (N=106) | | Males (N=114) | Females (N=106) |
| Having higher salary | 28.18 (12.09) | 27.30 (10.90) | 0.56 | .09 | .03 |
| In position of power and authority | 26.11 (12.32) | 22.79 (10.98) | 2.11* | .37** | .13 |
| Able to reward or punish subordinates | 17.56 (11.78) | 15.45 (10.08) | 1.42 | .06 | -.09 |
| Able to influence decision making | 31.05 (12.28) | 29.27 (10.26) | 1.16 | .07 | .08 |
| Chance to assume administrative responsibilities | 23.53 (11.94) | 25.14 (12.11) | -.99 | .22* | .19 |
| Chance to realise own ambitions | 31.01 (13.62) | 27.94 (12.58) | 1.73 | .06 | .03 |
| Chance to learn new things | 30.89 (12.04) | 33.34 (11.71) | -1.53 | .15 | -.09 |
| Chance to exercise own leadership style | 29.15 (13.04) | 26.64 (12.61) | 1.45 | .08 | .28* |
| Contacts with high status people | 23.39 (14.00) | 22.01 (12.71) | .76 | .01 | -.12 |
| Not having to report to a superior | 18.85 (14.16) | 20.23 (11.19) | -.79 | -.07 | -.12 |
| Having public exposure and recognition | 17.89 (13.13) | 19.13 (11.79) | -.73 | -.01 | .01 |
| Having personal challenge and stimulation | 33.59 (12.06) | 33.96 (11.66) | -.23 | .19 | .01 |
| Having more contacts with subordinates | 22.00 (12.29) | 22.94 (10.61) | -.59 | .00 | .23* |

SDs in parentheses

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

"factors beyond one's control" was not an important determinant (3.47 vs. 3.78, $t = 1.37$ N.S.). Females perceived all the other five factors as significantly more important for effective leadership. Females, therefore, believed that being an effective leader would require significantly higher dispositional qualities (i.e., "personality traits," $t = 2.71$, $p < .01$; "intelligence," $t = 2.68$, $p < .01$; and "competence," $t =$

2.10, $p < .05$) as well as more favorable environmental conditions (i.e., "subordinate support," $t = 2.24$, $p < .05$; and "favorable organisational characteristics," $t = 2.05$, $p = .05$).

Hypothesis 2:

To examine the extent to which the overall leadership aspiration rating is determined by the leadership valence score and the self-efficacy expectancies, a multiple

linear regression analysis was carried out. The leadership valence score and the three self-efficacy ratings were regressed against the overall leadership aspiration ratings. The intercorrelation matrices are presented in Table 3 and the β -weights are presented in Table 4.

In addition, the individual valence scores for the 13 outcomes were also regressed against the overall leadership ratings. The β -weights are given in Table 2. For both samples, leadership valence scores yielded significant β -weights (.49 and .38 for males and females). However, only the "ability-match" self-efficacy ratings made a significant contribution to the variance of overall leadership aspiration ratings for the female sample ($\beta = .38$). The results indicate that male respondents' overall leadership aspiration ratings were significantly determined by their instrumentality-valence expectancies alone; whereas those of females were determined equally by both instrumentality-valence and ability-match self-efficacy expectancies.

Hypothesis 3:

To test the effect of attributions of leadership requirements on instrumentality-valence and self-efficacy expectancies, ratings on the six attribution factors were regressed against the leadership valence score (V_L), and the three self-efficacy ratings. The β -weights are presented in Table 5. The results showed that for the male sample, ratings of instrumentality-valence and the three self-efficacy expectancies were determined significantly by the "competence" attribution (the β -weights were .29, .33, .30 and .35 respectively). However, for the female respondents, these ratings were significantly influenced by the importance they placed on "intelligence" and "organisational characteristics" as determinants of effective leadership.

Discussion

Among the final year commerce and political science students sampled in this study, males had stronger aspirations for leadership positions than females. Although no gender difference in overall leadership valence (V_L) was evident, there were significant gender differences in all three

measures of self-efficacy. Males consistently expected themselves to be more effective as leaders, to have better ability-match, and to succeed more easily as leaders. Given that leadership positions are traditionally dominated by males, these findings are consistent with earlier findings of females having lower self-efficacy expectancies in "male" professions (e.g., Betz & Hackett, 1981; 1983; Kerns, 1981; Layton, 1984; Wheeler, 1983).

Results of the regression analysis (Table 4) showed that for males, the variance of overall leadership aspiration ratings was accounted for by leadership valence alone, whereas for females, it was explained equally by leadership valence and ability-match self-efficacy expectancies. These results suggest differences in the source of leadership aspirations. Males' leadership aspirations were determined solely by the valence they attached to the various outcomes the position of leadership could bring about. However, in seeking leadership positions, females took into account both the outcome valence and their perceptions of how well their own abilities matched the leadership requirements.

In terms of the relative contributions of the instrumentality-valence theory and self-efficacy theory in predicting gender differences in leadership aspirations, leadership valence made a significant and independent contribution to explaining leadership-aspirations for both samples. However, none of the three self-efficacy expectancies was related to males' leadership aspiration, and only ability-match self-efficacy was significantly related to females' leadership aspirations. This, however, might be due to the high intercorrelations between the self-efficacy measures and leadership valence (see Table 3). Wheeler (1983) compared the valence model with self-efficacy theory in predicting career choices among 17 occupations. The results showed that the measure of ability-match self-efficacy was more highly related to occupational preference than the valence measure. Although the present finding appears inconsistent with that of Wheeler (1983), the fact that neither theory alone is sufficient in accounting for gender differences in leadership aspirations should

Table 3: Intercorrelation Matrices for Males and Females

| | Leadership Valence (V_L) | "Effectiveness" self-efficacy | "Ability-Match" self-efficacy | "Ease of Success" self-efficacy | Overall Leadership Aspiration |
|------------------------------------|---------------------------------|----------------------------------|----------------------------------|------------------------------------|-------------------------------------|
| <i>Males (N = 114)</i> | | | | | |
| Leadership Valence (V_L) | — | .57* | .59* | .47* | .61* |
| "Effectiveness" self-efficacy | | — | .83* | .70* | .44* |
| "Ability-Match" self-efficacy | | | — | .73* | .48* |
| "Ease of Success" self-efficacy | | | | — | .39* |
| <i>Females (N = 106)</i> | | | | | |
| Leadership Valence (V_L) | — | .68* | .59* | .53* | .57* |
| "Effectiveness" self-efficacy | | — | .82* | .71* | .51* |
| "Ability-Match" self-efficacy | | | — | .78** | .58* |
| "Ease of Success" self-efficacy | | | | — | .51* |

* $p < .001$

Table 4: Multiple Linear Regression with "Overall Leadership Aspiration Rating" as the Dependent Variable

| | β -weights | |
|---------------------------------|----------------------|------------------------|
| | Males ($N=114$) | Females ($N=106$) |
| Leadership Valence (V_L) | .49* | .38* |
| "Effectiveness" self-efficacy | -.01 | -.12 |
| "Ability-Match" self-efficacy | .14 | .38* |
| "Ease of Success" self efficacy | .07 | .10 |

* $p < .01$ Table 5: Multiple Linear Regression of "Attributions of Leadership Requirements" Against "Leadership Valence" (V_L) and Self-Efficacy Expectations

| Attributions of Leadership Requirements | β -weights | | | | | | | |
|---|--|-----------------------|----------------------------------|-----------------------|----------------------------------|-----------------------|------------------------------------|-----------------------|
| | Leadership valence ($V_L = I.V$) | | "Effectiveness" self-efficacy | | "Ability-Match" self-efficacy | | "Ease of success" self-efficacy | |
| | Male ($N=114$) | Female ($N=106$) | Male ($N=114$) | Female ($N=106$) | Male ($N=114$) | Female ($N=106$) | Male ($N=114$) | Female ($N=106$) |
| Personality traits | .20 | .16 | .02 | .17 | .12 | .19 | .13 | .13 |
| Intelligence | .08 | .14 | .14 | .25* | .11 | .23* | .08 | .21 |
| Competence | .29* | .15 | .33** | .18 | .30* | .18 | .35** | .17 |
| Subordinate support | -.07 | .14 | .09 | .02 | .11 | -.00 | .01 | -.14 |
| Favorable organisational characteristics | .11 | .31** | .01 | .24** | .04 | .21* | .09 | .25** |
| Factors beyond control | .09 | .17 | -.12 | .00 | -.14 | .04 | -.16 | .13 |

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

be interpreted as further support to Wheeler's claim for the need of including both models in occupational choice research (p. 78).

The relationships between the individual

instrumentality-valence score for the 13 outcomes and leadership aspirations are also worth noting. The β -weights in Table 2 point to the relative importance of each outcome in determining overall leadership

aspiration. For males, the two outcomes of "being in a position of power and authority" and "chance to assume administrative responsibilities" were the major determinants. On the other hand, females' leadership aspiration ratings were significantly affected by the valence they attached to the two outcomes of "chance to exercise own leadership style" and "having more contacts with subordinates."

There was also evidence of gender differences in attributions about the performance requirements for effective leadership. Although the order of importance attached to the six factors was identical for the two samples (i.e., competence was considered the most important requirement, followed by personality traits, subordinate support, intelligence, and luck), females consistently attached significantly greater importance to all but one (i.e., luck) attribution. This was interpreted as meaning that for females, being an effective leader would require both higher dispositional qualities (i.e., personality traits, intelligence and competence) and more favorable work conditions (i.e., subordinate support and favorable organisational characteristics). In other words, compared with males, females had more stringent criteria for defining effective leadership. This criterial difference might explain the observed gender differences in self-efficacy expectancies. Because females perceive "being an effective leader" as a more difficult task to achieve, they were less optimistic than males about their own chance of succeeding and consequently they had less favorable self-evaluations in terms of ability-match and success expectations. However, such criterial differences may have a positive effect on females' evaluations of leader performance. Several studies have been consistent in showing that females gave more favorable evaluations than males in judging the performance of either hypothetical leaders (e.g., Bartol & Butterfield, 1976; Offermann, 1979) or real leaders (e.g., Lee & Alvares, 1977).

The present results further shed light on the effect of perceived leadership requirements on an individual's valence and self-efficacy expectancies (see Table 5). For males, the valences they attached to leader-

ship outcomes were significantly influenced by the extent to which they perceived "competence" (β -weight = .29, $p < .05$) as an important requirement for effective leadership. In other words, the stronger they believed effective leadership to be dependent on "competence," the more they found the outcomes of being in leadership positions desirable. For females, however, the significant determinant was "favorable organisational characteristics" (β -weight = .31, $p < .01$) which is an external-situational factor. The finding that males' instrumentality-valence perceptions were determined by an internal-dispositional factor (i.e., competence) and those of females by an external-situational factor is consistent with the locus of control literature whereby females have been found to be more external than males (e.g., Maccoby & Jacklin, 1974). Although gender differences in locus of control were not directly observed in subjects' attributions about success in leadership positions, such differences have been identified as the underlying determinants of an individual's occupational valence decisions. The present data could then be seen as being supportive of Brief, Van Sell, and Aldag's (1979) prediction that sex differences in locus of control would have an effect on instrumentality-valence perceptions (p. 527).

The three self-efficacy expectancies were also affected by attributions of leadership requirements. For males, the greater the importance they placed on "competence" as a leadership requirement, the more favorable were their self-efficacy perceptions (β -weights were .33, .30, and .35 for "effectiveness," "ability-match" and "ease of success" self-efficacies respectively). For females, the key determinants of their self-efficacy perceptions were "intelligence" (β -weights were .25, .23, and .21) and "favorable organisational characteristics" (β -weights were .24, .21, and .25). These results indicate that males perceived it more likely for them to succeed as leaders if competence was the key requirement for effective leadership. On the other hand, females' self-efficacy perceptions were more favorable if effective leadership was dependent upon both dispositional (i.e., intelli-

gence) and situational (i.e., favorable organisational characteristics) factors. Gender differences in locus of control, therefore, also act as an underlying determinant of an individual's self-efficacy evaluations.

A number of limitations of the study deserve discussion. With reference to instrumentality-valence theory, the use of a set of *a priori* leadership outcomes would restrict the generalisability of the overall leadership valence measure. The nature of the outcomes could have been controlled. The predictive validity of valence theory has been shown to be affected by the intrinsic vs. extrinsic nature of the outcomes (e.g., Kopelman & Thompson, 1976; Parker & Dyer, 1976; Turner & Cohen, 1976). Further, the present application of the valence theory to an across-subjects design has also been criticised (e.g., Mitchell, 1980). However, such a design has served its purpose in research concerning group differences in occupational choices. Further studies on leadership aspirations could adopt the within-subjects approach by having subjects make choices among leadership vs. non-leadership positions. In the context of the self-efficacy model, a more complete design would have included separate self-efficacy ratings in relation to each of the six leadership performance requirements (i.e., personality traits, intelligence, etc.). In exploring the preconceptions of the task requirements of effective leadership and the relevant aspects of an individual's leadership schema, the applications of the attribution theory methodology and *a priori* attributional categories also set limits on the thoroughness of the exploration. In spite of these limitations, the present study nonetheless represents an initial attempt in investigating the underlying mechanisms of gender differences in vocational decision making concerning leadership positions. The findings may have practical implications for leadership training and management recruitment programmes in organisations. Future research could adopt an open-ended interview design (e.g., Cromie, 1987; Hackett, Betz, & Doty, 1985) to directly examine the content of an individual's leadership schema and its relation to gender differences in leadership aspirations.

More importantly, perhaps, is the need for developmental and longitudinal research to assess first, the generalisability of the present findings to samples of organisational employees; and second, the effect of organisational socialisation on gender differences in leadership aspirations.

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