

# Patterns of Power and Leadership: Understanding Total Behaviour Leadership

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## SUMMARY

This White paper is the result of a collaboration of the University of the Sunshine Coast and the Australian Institute of Management (Qld & NT Division). A survey was conducted of 560 managers in Queensland including 132 CEOs who reported on the leadership behaviours of their most senior subordinates and 393 non-CEOs who reported on their supervisors. The aim was to identify the patterns across the main behavioural dimensions of leadership rather than a single dimension as in previous research. The results indicated that the most common pattern of power behaviour, which was exhibited by almost a third of women and a quarter of men, involved low levels of all five power types (coercive, reward, position, expert and referent). The main findings relate to leadership style patterns across eight dimensions. Out of 256 possible patterns the most common patterns which were exhibited by almost half of all managers were 'nurturing' patterns characterised by the following behaviours: collaborative decision-making, open communication, high task-focus and high relationship-focus management, high inspiration motivation, high cooperativeness in conflict management and either high or low exchange motivation and high or low assertiveness in conflict management. The other common patterns (exhibited by one-in-seven managers) were 'authoritarian' patterns which involve: autocratic decision-making, closed communication, low relationship-focus management, low inspiration and low exchange motivation, as well as high assertiveness and low cooperativeness in conflict management. Nurturing patterns of leadership were more common among women and authoritarian patterns were more common among men. Importantly, both CEOs who rated subordinates and non-CEOs who rated supervisors judged nurturing patterns to be much more effective than authoritarian patterns. The clear implication for managerial practice is that to be fully effective a manager must abandon authoritarian behaviours and adopt a nurturing leadership style across a range of behavioural dimensions.

## INTRODUCTION

Previous research on leadership has almost invariably been restricted to a single dimension of behaviour. The major theories of leadership focus on only one dimension (particularly managerial style, motivational style and decision-making style). The earliest behavioural models of leadership are based on survey research into one dimension, namely, managerial behaviour (Katz, Maccoby & Morse 1950; Stogdill & Coons 1957) and many of the later models adopt the same approach (Blake & Mouton 1964; Hersey & Blanchard 1969). However, Hede (1997) argued that it is invalid to regard a single behavioural dimension as the only determinant of leadership effectiveness as implied by most models of leadership. Real behaviour is not fragmented but involves multiple dimensions. For example, in the one interaction with their staff (e.g., a strategic planning session) a leader-manager would exercise behaviour relating to the dimensions of power, motivation, communication, decision-making and possibly others.

An integrated model of 'Total Behaviour Leadership' was developed to reflect this reality. This model posits that the overall effectiveness of a leader-manager can be measured by the combined effect on their followers of their behaviour across different dimensions, that is, their multi-style pattern of behaviour (Hede 1997, 2001). The dimensions on which leadership styles can vary draw on established theories as follows: style of influence (based on differing power sources and tactics; see French & Raven 1959), management style (task-focus versus people-focus; see Blake and Mouton 1964; Fiedler 1967), communication style (open versus closed; see Mintzberg, 1973), decision-making style (autocratic to collegial; see Vroom & Yetton 1973; Vroom & Jago 1988) and motivation style (inspiration versus exchange; see Bass 1985, 1990; Bass & Avolio 1990), conflict management style (assertiveness by cooperativeness; see Hede 1990, 1994; Thomas 1992), culture management style (literal versus symbolic), and change management style (coercive to delegating; see Dunphy & Stace 1990).

The present research aims to put Hede's (1997) Total Behaviour Leadership model to empirical test. An instrument has been developed to assess leadership style across six of the eight behavioural dimensions in the model (the culture management and change management styles have been omitted to simplify the measurement). The study will determine what multi-style patterns (styles across the six dimensions) leaders adopt and how effective are the different patterns. A fruitful area for this research to explore is that of gender differences. The literature is divided on the issue of whether women and men differ in their approach to leadership. There are many studies which suggest that there are no notable differences in leadership style between men and women (Dobbins & Platz, 1986; Bourantas & Papalexandris, 1990; Powell, 1990; Ferrario, 1991; Powell, 1993). Other studies, however, suggest that women are more democratic whereas men are more autocratic in their leadership style (Eagly & Johnson, 1990), that women are more people-oriented and cooperative whereas men are more task-oriented and competitive (Korabik & Ayman, 1989) and that women tend to be more transformational whereas men are more transactional (Bass & Avolio, 1994). It is unclear whether such differences are inherent in the population or whether they are sample-bound. The proposed research on leadership multi-style patterns will consider whether women and men differ in their style choices.

## METHODOLOGY

### Survey Sample

The sampling frame for this survey was drawn from the membership database of the Australian Institute of Management (Queensland & Northern Territory Division). The Institute selected a sample of 5,000 people comprising: 1066 individual members (at Fellow and Associate Fellow level) in both metropolitan and regional areas of Queensland; the main contacts for 1768 organisations with corporate membership of the Institute; and 2166 other managers on the Institute's database.

### Measurement Scales

Data collection was based on inviting respondents to report anonymously on the behaviours of a work colleague. If they were a CEO they were asked to rate their most senior subordinate manager and if they were a non-CEO they were asked to rate their supervisor. Two 'eligibility check' questions at the start of the questionnaire identified whether the potential respondents belonged to the two target sub-samples (viz., CEOs versus non-CEO managers) or whether they were ineligible for the survey (because they were not employed in an organisation with at least two management levels). They were presented with 44 leadership behaviours covering the six style dimensions being studied (see Appendix), namely: style of influence (10 items on 5 power types), decision-making style (4 items), communication style (6 items), managerial style (4 items on task-focus, 4 items on relationship-focus), motivation style (4 items on inspiration, 4 items on exchange), conflict management style (4 items on assertiveness, 4 items on cooperativeness). The format for all items was: "The person I am rating... [description of relevant behaviour starting with a verb]"; for example, "...Allows subordinates to fully participate in decisions by consensus". In each case respondents rated the frequency of the behaviour using the scale: 0 = Never; 1 = Once in a while; 2 = Sometimes; 3 = Fairly often; 4 = Frequently, if not always. This scale has been shown to provide an interval level of measurement ( Bass, Cascio & O'Connor, 1974).

There were four dependent variables to assess leadership effectiveness of managers being rated, namely, how effective as a leader (unipolar scale with 5 categories from 'not at all effective' to 'extremely effective'), how successful in the organisation (unipolar scale with 5 categories from 'not at all successful' to 'extremely successful'), performance of the manager's organisational unit (bipolar scale with 5 categories from 'very poor' to 'very good'), and the rater's satisfaction with the manager's leadership (bipolar scale with 5 categories from 'very dissatisfied' to 'very satisfied'). All four measures are considered to meet the criteria for interval scaling.

A pilot survey was conducted of 74 respondents working in the researcher's organisation. As well as completing the questionnaire these respondents were asked to identify any items or instructions that were unclear. The questionnaire was modified on the basis of respondents' comments and reliability testing of the various measurement scales.

### Survey Response

The final survey questionnaire formatted to fit on four A4 pages printed on a folded A3 buff-coloured sheet, was mailed to potential respondents with a covering letter signed by the researcher with university affiliation and by the CEO of the Australian Institute of Management. A reply-paid envelope was included. From the mailout of 5,000 in late

2004, there were 130 incorrect address returns, 10 unusable responses and a total of 560 usable responses giving a response rate of 11.5%. The usable responses comprised 393 non-CEOs who rated their supervising manager, 132 CEOs who rated their most senior subordinate manager and 35 ineligible respondents (i.e., not working in an organization, and who provided only demographic information).

## RESULTS

Data from the completed questionnaires were computer entered for analysis using SPSS (Statistical Package for Social Sciences). In order to verify data accuracy, all responses from the 560 respondents were entered twice. The two separate computer files were then compared electronically and any disparities were checked against the original questionnaires and corrected where necessary.

A comparison was made of early and late respondents. Following established practice, late respondents were assumed to be more like non-respondents. A comparison was made of early respondents (n=434 questionnaires returned within first two weeks) versus late respondents (n=126 questionnaires returned after two weeks). There were no significant differences in the data between early and late respondents which is consistent with there being no bias because of non-response (Armstrong & Overton, 1977).

The reliability of the various measurement scales was tested using Cronbach's Alpha. The reliabilities for the various scales were as follows: decision-making style (0.88), communication style (0.90), managerial style – task-focus (0.85), managerial style – relationship-focus (0.88), motivation style – inspiration (0.93), motivation style – exchange (0.75), conflict management style – assertiveness (0.85), conflict management style – cooperativeness (0.81). In all cases the alphas indicate acceptable scale reliability. Note that according to Robinson, Shaver and Wrightsman (1991), alpha values of 0.80 or higher are considered 'exemplary', values between 0.70 and 0.79 are considered 'extensive', 0.60-0.69 are 'moderate', and less than 0.60 are 'minimal'. However, as one of the five 2-item power scales failed to meet the minimum acceptable alpha of 0.60, it was decided to use single items to measure power type (see Appendix) and also to analyse this behavioural dimension separately from the other style dimensions.

### Patterns of Power

The five items on power type were recoded depending whether the manager was rated high ('fairly often or frequently') versus low on the different power behaviours (see Appendix). With five binary variables for power type (coercive power, reward power, position power, expert power, referent power) there are 32 possible patterns. The most common power patterns are listed in Table 1. Of the 516 managers for whom complete power type data were available, 452 or 87.6% were covered by only 10 of the 32 possible patterns. Surprisingly, the most common pattern exhibited by 24.6% of managers was to be low on all five power types (see Pattern 1 'No High Power' in Table 1). In other words, a quarter of all managers were judged by their co-workers not to exhibit any of the five power behaviours more than 'sometimes'. The second most common pattern (11.8% of managers) was to be high only on referent power which involves having subordinates comply with them out of respect or admiration (see Pattern 2 'High Referent Power' in Table 1).

The third most common pattern is that of 'High Position Power' – 9.9% of managers were rated as often using the authority of their position to influence subordinates. The next two most common patterns each involve two power types. For Pattern 4 there were 7.8% of managers who were rated as exhibiting high expert and also high referent power whereas for Pattern 5 (7.0% of managers) the two highly rated types were expert power and position power (see Table 1). It is notable that high coercive power (use of coercion) was exhibited by only 1.6% of managers and then in conjunction with both expert power and referent power (see Pattern 10 in Table 1).

### Gender Differences in Power

A comparison was made of the proportion of female and male managers exhibiting the six most common power patterns. Complete power data were available for 102 females and 390 males. As can be seen from Figure 1 women were more likely than men to exhibit the 'No High Power' pattern (31% females versus 23% males) and also 'High Referent Power' (Pattern 2) (17% females versus 11% males). In addition, women were more likely than men to use high referent power in combination with high expert power (15% females versus 8% males) (see Pattern 4 in Figure 1). However, male managers were more likely than females to rely on 'High Position Power' (11% males versus 6% females) and also to use both position and expert power (Pattern 5) (9% males versus 5% females).

### Power Patterns and Performance

The survey included four measures of performance, namely: rated effectiveness of the manager, how successful they are in the organisation, performance of the manager's unit, and rater's satisfaction with the manager's leadership. For each of these measures, high performance was defined as the top two categories on the various five-point rating scales (see above section on Measurement Scales). Figure 2 plots the percentages rated high on the four measures for each of the main power patterns. The highest ratings on all four measures were given for the two patterns involving high referent power (see Pattern 2 and Pattern 4 with ratings above 80% in all cases). By contrast the two patterns involving high position power (Patterns 3 and 5) received the lowest ratings on all four measures (with effectiveness ratings of 24% and 25%, respectively). Interestingly, while only one-in-four managers relying on high position power were rated as highly effective, raters were more likely to be highly satisfied with their leadership particularly when managers also used high expert power as well (33% and 53% for Patterns 3 and 5, respectively).

### Leadership Style Patterns

Five styles of leadership were measured in this study with three of the styles involving two types of behaviour giving a total of eight measures, namely, decision-making style (collaborativeness), communication style (openness), managerial style (task-focus), managerial style (relationship-focus), motivational style (inspiration), motivational style (exchange), conflict management style (assertiveness), conflict management style (cooperativeness). The scale scores for the 4-item style measures ranged from 0-16 with scores of 0-7 recoded as 'low' and 8-16 as 'high' (in the case of communication, the categories are more properly labelled 'closed' versus 'open'). The scores for the 6-item decision-making scale ranged from 0-24 with 0-7 recoded as 'autocratic' and 12-24 as 'collaborative' (see Appendix for items on all scales). The above eight binary measures of leadership style give rise to 256 possible patterns. Complete leadership style data were available for 482 managers and 330 of them (68.5%) exhibited 10 of the 256 style patterns (see Table 2).

The most common style pattern which was exhibited by 86 managers (17.8%) can be called the 'Classic Nurturer' exhibiting the following behaviours: collaborative decision-making, open communication, high task-focus, high relationship-focus, high inspiration, low exchange, low assertiveness and high cooperativeness. A further 12.7% of managers had an identical pattern except that they made high rather than low use of exchange in motivating subordinates – this pattern is called the 'Deal-making Nurturer' (see Table 2). The third most common style pattern is almost the exact opposite of the nurturing styles and involves the following: autocratic decision making, closed communication, high task-focus, low relationship-focus, low inspiration, high exchange, high assertiveness and low cooperativeness. This pattern is called the 'Classic Authoritarian' and was found to be exhibited by 10.8% of managers (see Pattern 3 in Table 2).

The next two most common style patterns are similar to the first two nurturing styles differing only in that they involve high rather than low assertiveness in conflict management. To reflect these variations they are here called the 'Deal-making Assertive Nurturer' and the 'Assertive Nurturer' patterns which were exhibited by 8.7% and 7.9% of managers, respectively (see Patterns 4 and 5 in Table 1). The only other pattern to be exhibited by more than 3% of managers is identical to the 'Classic Authoritarian' except that these leaders have a low task focus. Accordingly, this pattern is here called 'Laissez-faire Authoritarian' (see Pattern 6 in Table 1).

### **Gender Differences in Leadership Style Patterns**

As with power patterns, the proportions of women and men exhibiting the various leadership style patterns were compared. In this case, complete style data were available for 89 female and 371 male managers. The results are illustrated in Figure 3. As can be seen, women were almost twice as likely as men to exhibit the 'Classic Nurturer' pattern of leadership (28% females versus 16% males). By contrast, women were only half as likely as men to be a 'Classic Authoritarian' (6% females versus 12% males). Also, the 'Laissez-faire Authoritarian' pattern while exhibited by only a small proportion of managers, was more common for men than women (4% males versus 1% females).

### **Leadership Style Patterns and Performance**

The four performance measures outlined above for power patterns were again used to compare the main leadership style patterns. As can be seen from Figure 4, more than three-quarters of those exhibiting the various nurturing patterns were rated highly on all four measures whereas for the two authoritarian patterns only small percentages of managers were rated with high performance. In fact, only 6% of classic authoritarians and 0% of laissez-faire authoritarians were rated as highly effective (see Patterns 3 and 6 in Figure 4). It is interesting to note that the highest performing of all the leadership style patterns was that of the 'Deal-making nurturer' (see Pattern 2 in Figure 4).

### **Comparison of Supervisors and Subordinates**

The current sample comprised two distinct sub-samples, namely ratings by managers of their supervisor and ratings by CEOs of their most senior subordinate manager. T-tests were used to test for possible differences between the two groups of raters in how effective they considered the different patterns of power and leadership behaviour. There were no significant differences between CEOs and managers on any of the four performance measures for any of the six power patterns or any of the six leadership style patterns.

## DISCUSSION & CONCLUSION

Rather than looking at leadership in terms of only one style dimension as in previous research, the present study investigated Hede's (1997, 2001) model of Total Behaviour Leadership, that is, patterns of leadership across multiple behavioural dimensions. The first dimension to be considered is that of power involving behaviour patterns across five power types (coercive, reward, position, expert and referent). While it could be argued that power is an essential component of all leadership, an important finding in the present study is that almost a third of women and a quarter of men were judged to exhibit only low levels of all five power types. While it is not surprising that the most effective power patterns were found to be those involving referent power (commanding respect or admiration), the 'No High Power' pattern was equally effective as 'High Expert Power'. Managers exhibiting either of these patterns were twice as likely to be rated as highly effective than those exhibiting patterns based on position power (see Figure 2).

This research examined 256 possible leadership style patterns based on whether a manager exhibited high or low levels of behaviour on eight dimensions. The most common patterns exhibited by almost half of all managers were what can be called nurturing patterns involving: collaborative decision-making, open communication, high task-focus and high relationship-focus management, high inspiration motivation, high cooperativeness in conflict management and either high or low exchange motivation and high or low assertiveness in conflict management (see Patterns 1, 2, 4 & 5 in Table 2). The other common patterns (exhibited by one-in-seven managers) are here called 'authoritarian' patterns as they involve the following: autocratic decision-making, closed communication, low relationship-focus management, low inspiration and low exchange motivation, as well as high assertiveness and low cooperativeness in conflict management.

There are a number of gender differences worth noting in the present results. First, in relation to power, women seem to be more likely than men to be rated low on all five power types, that is, to exhibit a 'No High Power' pattern. Also, patterns involving referent power were found to be more common among female managers and patterns involving position power were more common among male managers. In relation to leadership style, on the other hand, the most widely exhibited pattern (the 'Classic Nurturer') was twice as likely to occur among women as compared with men. However, men were found to be more likely than women to exhibit authoritarian patterns of leadership.

The present findings regarding the impact on performance of the various leadership style patterns are quite clear-cut. Authoritarian patterns result in low performance whereas nurturing patterns produce high levels of performance. More than three-quarters of managers who exhibited nurturing patterns of leadership were rated highly on all four performance measures. A key finding is that the perceived effectiveness of the various patterns did not differ between managers rating their supervisors and CEOs rating their most senior subordinates. This was true for all four performance measures for power patterns as well as leadership style patterns. Thus the higher performance ratings of nurturing over authoritarian patterns of leadership cannot be attributed to managers preferring their own supervisor to be a nurturer rather than an autocrat. CEOs also regard nurturing patterns as more effective than authoritarian patterns in their subordinate managers.

The main implication of this research for practising managers is that in order to maximise effectiveness they should resist the temptation to be authoritarian in their approach and adopt a nurturing multi-style pattern of leadership. It seems clear that among Queensland managers, women have a better appreciation than men that nurturers make more effective leaders than authoritarians.

## REFERENCES

- Armstrong, J.S. and Overton, T.S. (1977). Estimating nonresponse bias in mail surveys, *Journal of Marketing Research*, 14, 396-402.
- Bass, B.M. (1990). *Handbook of Leadership: A Survey of Theory and Research*. New York: Free Press.
- Bass, B.M. and Avolio, B.J. (1990). *Transformational Leadership Development: Manual for the Multifactor Leadership Questionnaire*. Palo Alto, CA: Consulting Psychologists Press.
- Bass, B.M. and Avolio, B.J. (1994). Shatter the glass ceiling: Women may make better managers, *Human Resource Management*, 33(4), 549-560.
- Bass, B.M., Cascio, W.F. and O'Connor, E.J. (1974). Magnitude estimations of expressions of frequency and amount. *Journal of Applied Psychology*, 59(3), 313-320.
- Blake, R.R. and Mouton, J.S. (1964). *The Managerial Grid*. Gulf Publishing: Houston.
- Bourantas, D, and Papalexandris, N. (1990). Sex differences in leadership: Leadership styles and subordinate satisfaction. *Journal of Managerial Psychology*, 5(5), 7-10.
- Dobbins, G.H. and Platz, S.J. (1986). Sex differences in leadership: How real are they? *Academy of Management Review*, 11(1), 118-127.
- Dunphy, D. and Stace, D. (1990). *Under New Management: Australian Organisations in Transition*. Sydney: McGraw-Hill.
- Eagly, A.H. and Johnson, S.J. (1990). Gender and leadership style: A meta-analysis, *Psychological Bulletin*, 108(2), 233-256.
- Ferrario, M. (1991). Sex differences in leadership style: Myth or reality? *Women in Management Review*, 6(3), 16-21.
- Fiedler, F.E. (1967). *A Theory of Leadership Effectiveness*. McGraw-Hill: New York.
- French, J.R.P. and Raven, B.H. (1959). The bases of social power. In D. Cartwright (Ed). *Studies of Social Power*. Ann Arbor, MI: Institute of Social Research.
- Hede, A.J. (1990). Understanding and managing conflict in organisations. *Corporate Management*, 42(1), 39-43.
- Hede, A.J. (1994). 'Collective wisdom': Enhancing group decision-making, *Corporate Management*, 46(2), 79-82.
- Hede, A.J. (1997). Integrated leadership: A multi-style model of managerial behaviour in organizations, *Australian and New Zealand Academy of Management Annual Conference*, Melbourne, December.
- Hede, A.J. (2001). Integrated leadership: Multiple styles for maximal effectiveness, in K. Parry (ed), *Leadership in the Antipodes: Findings, Implications and a Leader Profile*, Institute of Policy Studies, Wellington, New Zealand.
- Hede, A J, and Wear, R, (1996). Dimensions of political and organisational leadership, in K. Parry (ed), *Leadership Research and Practice*, Pitman Publishing, Melbourne.
- Hede, A J, and Wear, R, (1995). 'Transformational versus transactional styles of Cabinet leadership in Australian politics', *Australian Journal of Political Science*, 30, 201-216.
- Hersey, P. and Blanchard, K.H. (1969). Life-cycle theory of leadership, *Training and Development Journal*, 23, 26-34.
- Karpin, D. (1995). *Enterprising Nation: Renewing Australia's Managers to Meet the Challenges of the Asia-Pacific Century*, Report of the Industry Task Force on Leadership and Management Skills. Canberra: Australian Government Publishing Service.
- Katz, D., Maccoby, N. and Morse, N. (1950). *Productivity, Supervision and Morale in an Office Situation*. Ann Arbor, MI: Institute for Social Research.

- Korabik, K. and Ayman, R. (1989). Should women managers have to act like men? *Journal of Management Development*, 8(6), 23-32.
- Mintzberg, H. (1973). *The Nature of Managerial Work*. Harper & Row, New York.
- Powell, G.N. (1990). One more time: Do female and male managers differ? *Academy of Management Executive*, 4(3), 68-75.
- Powell, G.N. (1993). *Women and Men in Management (2nd Edn)*. Thousand Oaks, CA: Sage.
- Robinson, J.P., Shaver, P.R., and Wrightsman, L.S. (1991). *Measures of Personality and Social Psychological Attitudes*. San Diego, CA: Academic Press.
- Stogdill, R.M. and Coons, A.E. (1957). *Leader Behavior: Its Description and Measurement*. Columbus, OH: Ohio State University.
- Thomas, K.W. (1992). Conflict and negotiation processes in organizations, in M.D. Dunnette and L.M. Hough, (Eds). *Handbook of Industrial and Organizational Psychology (2nd Edn)*. Palo Alto, CA: Consulting Psychologists Press.
- Vroom, V.H. and Yetton, P.W. (1973). *Leadership and Decision Making*. Pittsburgh: University of Pittsburgh Press.
- Vroom, V.H. and Jago, A.G. (1988). *The New Leadership: Managing Participation in Organizations*. Englewood Cliffs, NJ: Prentice Hall.

## TABLES AND FIGURES

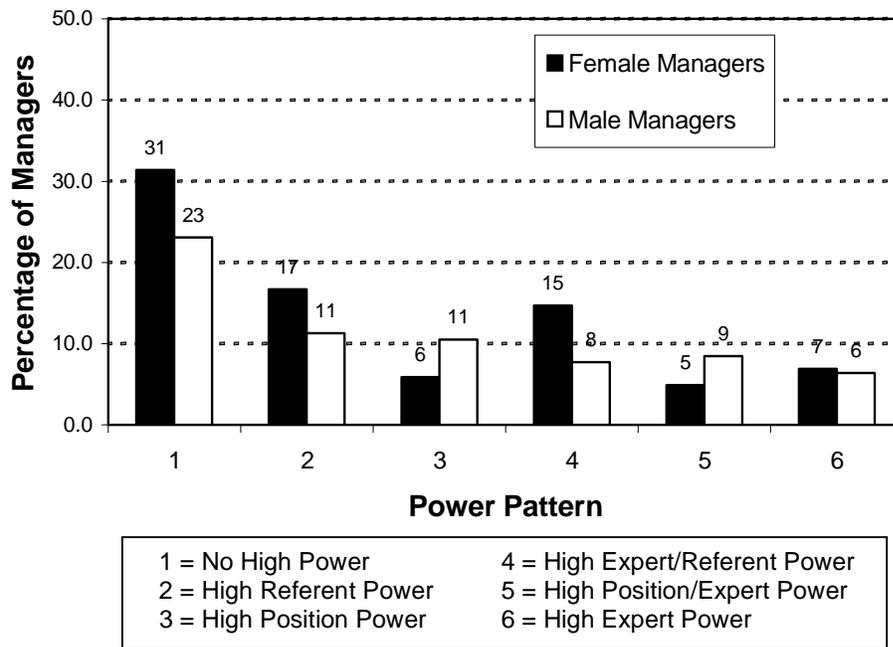
**Table 1: Most common power patterns<sup>a</sup> (top 10 ranked in descending order)**

Pattern Rank No.	N <sup>b</sup>	%	Coercive Power	Reward Power	Position Power	Expert Power	Referent Power
1	127	24.6	Low	Low	Low	Low	Low
2	61	11.8	Low	Low	Low	Low	High
3	51	9.9	Low	Low	High	Low	Low
4	47	9.1	Low	Low	Low	High	High
5	40	7.8	Low	Low	High	High	Low
6	36	7.0	Low	Low	Low	High	Low
7	35	6.8	Low	High	High	Low	Low
8	29	5.6	Low	Low	High	High	High
9	18	3.5	Low	High	High	High	Low
10	8	1.6	High	Low	Low	High	High
Total	452	87.6					

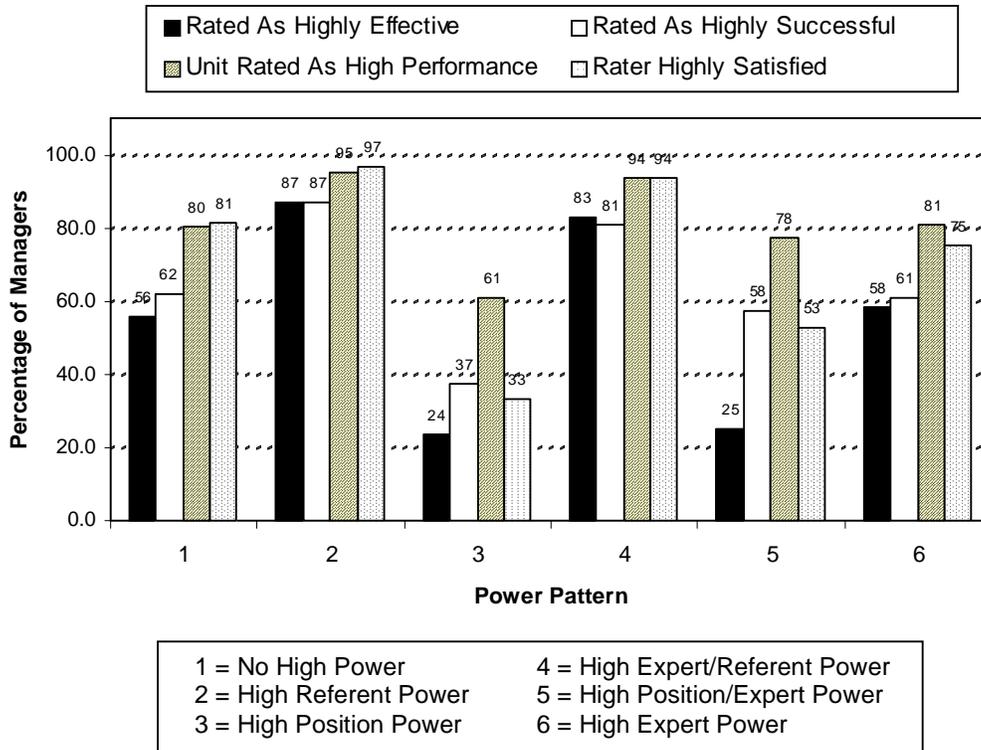
- Notes:**
- a. Total number of power type patterns =  $2 \times 2 \times 2 \times 2 \times 2 = 32$
  - b. Complete power type data available on 516 managers
  - c. Power pattern names (Nos. 1 – 6):
 

1 = No High Power	4 = High Expert/Referent Power
2 = High Referent Power	5 = High Position/Expert Power
3 = High Position Power	6 = High Expert Power

**Figure 1: Percentage of female and male managers exhibiting the main power patterns** (see Table 1 for details of power patterns; complete power data available for 102 female and 390 male managers)



**Figure 2: Power patterns and performance (4 measures)**  
 (see Table 1 for details of power patterns)



**Table 2: Most common leadership style patterns <sup>a</sup> (top 10 ranked in descending order)**

Pattern Rank No.	N <sup>b</sup>	%	Decision-Making Style	Communication Style	Managerial Style: Task	Managerial Style: Relationship	Motivational Style: Inspiration	Motivational Style: Exchange	Conflict Style: Assertiveness	Conflict Style: Cooperativeness
1	86	17.8	Collaborative	Open	High	High	High	Low	Low	High
2	61	12.7	Collaborative	Open	High	High	High	High	Low	High
3	52	10.8	Autocratic	Closed	High	Low	Low	Low	High	Low
4	42	8.7	Collaborative	Open	High	High	High	High	High	High
5	38	7.9	Collaborative	Open	High	High	High	Low	High	High
6	16	3.3	Autocratic	Closed	Low	Low	Low	Low	High	Low
7	10	2.1	Collaborative	Open	High	High	High	Low	High	Low
8	9	1.9	Autocratic	Closed	High	Low	Low	Low	High	High
9	9	1.9	Collaborative	Open	High	High	High	High	High	Low
10	7	1.5	Collaborative	Open	High	Low	Low	Low	High	Low
Total	330	68.5								

**Notes:**

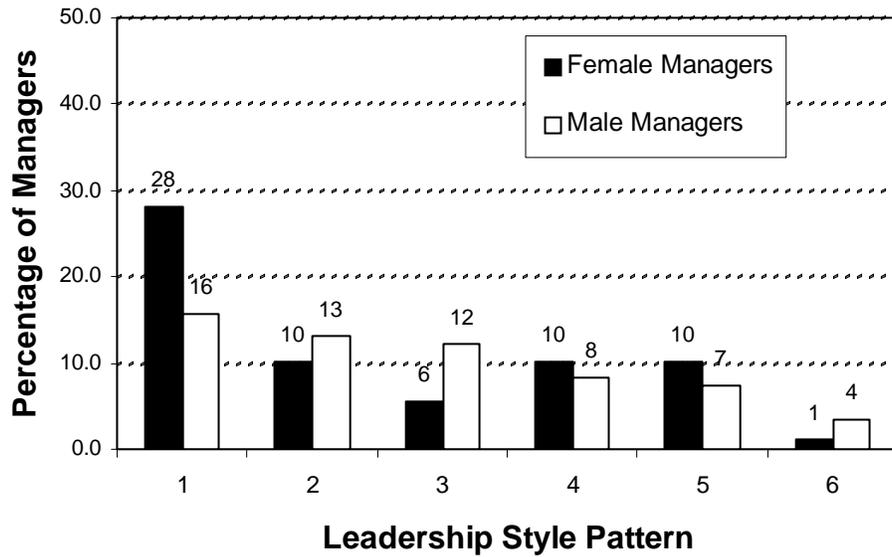
a. Total number of leadership style patterns =  $2 \times 2 \times 2 \times 2 \times 2 \times 2 \times 2 = 256$

b. Complete leadership style data available on 482 managers

c. Leadership style pattern names (Nos. 1 – 6):

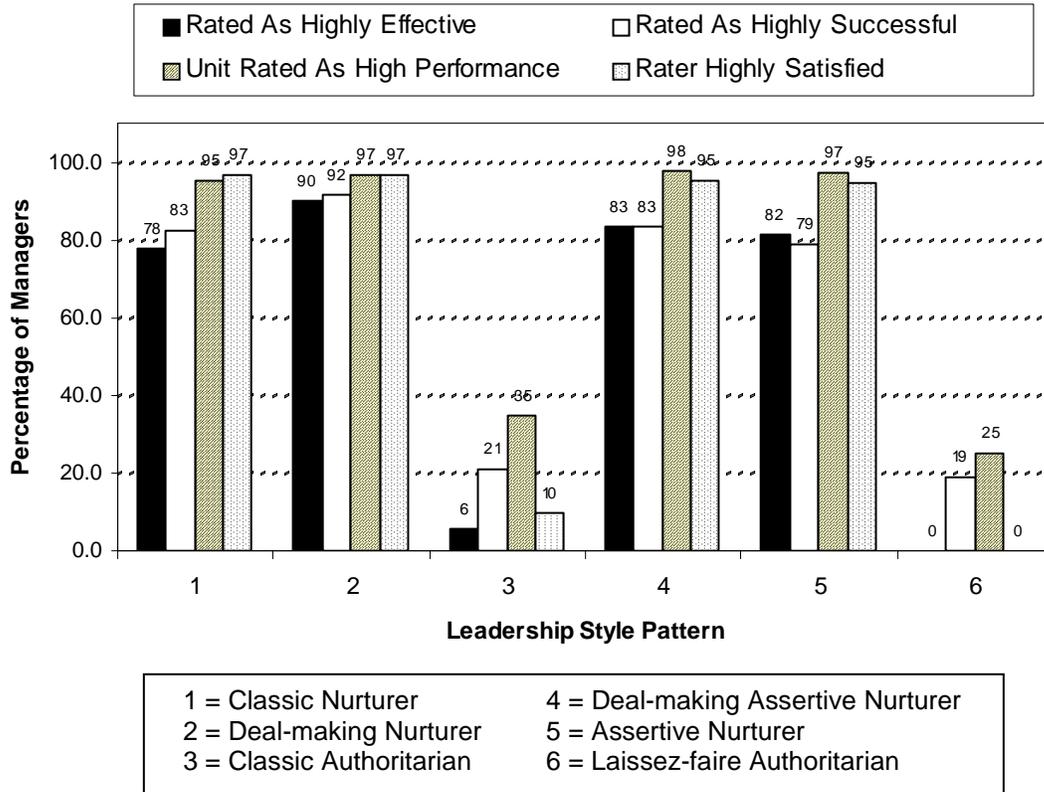
1 = Classic Nurturer	4 = Deal-making Assertive Nurturer
2 = Deal-making Nurturer	5 = Assertive Nurturer
3 = Classic Authoritarian	6 = Laissez-faire Authoritarian

**Figure 3: Percentage of female and male managers displaying the main leadership style patterns** (see Table 2 for details of style patterns; complete style data available for 89 female and 371 male managers)



1 = Classic Nurturer	4 = Deal-making Assertive Nurturer
2 = Deal-making Nurturer	5 = Assertive Nurturer
3 = Classic Authoritarian	6 = Laissez-faire Authoritarian

**Figure 4: Leadership style patterns and performance (4 measures)** (see Table 2 for details of style patterns)



## Appendix

### Measures of leadership style and power type – items and scale reliabilities (Cronbach's alpha) (\* = recoded)

<b>Power Type (5 single items)</b>	<b>Scale alpha N/A</b>
Uses coercion to get subordinates to comply with them ( <b>Coercive Power</b> )	
Uses rewards to get subordinates to comply with them ( <b>Reward Power</b> )	
Relies on the authority of their position in order to influence subordinates ( <b>Position</b> )	
Relies on their specialist knowledge in order to influence subordinates ( <b>Expert Power</b> )	
Gets subordinates to comply with them out of respect or admiration ( <b>Referent Power</b> )	
<b>Decision-Making Style (Collaborativeness)</b>	<b>Scale alpha = 0.88</b>
* Gives subordinates no more information than they really have to	
* Shares with subordinates as little information as they can get away with	
Openly shares with subordinates as much information as possible	
Ensures subordinates are fully informed about what is going on	
<b>Communication Style (Openness)</b>	<b>Scale alpha = 0.90</b>
Allows subordinates to fully participate in decisions by consensus	
* Makes major decisions by themselves	
Consults widely before making decisions	
* Adopts an individualistic approach to decision-making	
* Ignores subordinates' opinions when making decisions	
Adopts a collaborative approach to decision-making	
<b>Managerial Style (Task-Focus)</b>	<b>Scale alpha = 0.85</b>
Places high emphasis on getting the job done	
Concentrates on task achievement	
Focuses on achieving results	
Behaves in a very task-oriented manner	
<b>Managerial Style (Relationship-Focus)</b>	<b>Scale alpha = 0.88</b>
Strives to keep morale high among subordinates	
Behaves in a very relationship-oriented manner	
Provides social and/or emotional support for subordinates	
Focuses on dealing with people issues	
<b>Motivational Style (Inspiration)</b>	<b>Scale alpha = 0.93</b>
Motivates subordinates to achieve more than they think they can	
Offers subordinates an inspiring vision of what is possible	
Generates enthusiasm among subordinates to work hard	
Inspires subordinates to high performance	
<b>Motivational Style (Exchange)</b>	<b>Scale alpha = 0.75</b>
Exchanges benefits for subordinates' high job performance	
Provides rewards in exchange for hard work	
Makes it clear to subordinates what rewards they will get for their efforts	
Gives subordinates what they want in exchange for their cooperation	
<b>Conflict Management Style (Assertiveness)</b>	<b>Scale alpha = 0.85</b>
Behaves very assertively when involved in disagreements	
Tries to get their own way in disputes	
Sticks to their own opinion in an argument	
Refuses to back down in a disagreement	
<b>Conflict Management Style (Cooperativeness)</b>	<b>Scale alpha = 0.81</b>
Concedes to others' opinions in an argument	
Accommodates the viewpoints of others	
Is willing to give ground in a dispute	
Behaves very cooperatively when involved in disagreements	