

PERFORMANCE, EMPOWERMENT AND GENDER

by

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ABSTRACT

The increasing diversity of today's workplace has led many organizations and individuals to question the necessity for the stereotype of effective managers to be dominant, aggressive and 'masculine'. This has been reflected in the research conducted on men and women in management in the past twenty five years. Along with this diversification of the workplace has been the rapid growth in popularity of 'empowerment'. This term, although frequently used by organizations and researchers alike, is also somewhat unclear. In addition, there is little empirical work on the relationship of empowerment to men and women in the workplace, especially as managers.

This study includes an examination of the performance of men and women on managerial tasks, and in response to an empowerment manipulation. 135 graduate business students participated in a series of managerial simulation in-basket exercises, in which were embedded an empowerment manipulation. The empowerment treatment consisted of increased information, responsibility and active belief, whereas the disempowerment treatment consisted of decreased levels of these factors.

The analyses showed that there was a main effect by treatment group on job performance, with control group participants having significantly higher total

performance than the disempowered and empowered groups. There was also a significant main effect for the sex of an individual, with the female participants scoring significantly higher than the male participants. In addition, the test conducted indicated that there was no significant interaction between treatment group and sex. Several possible explanations are offered for these results, and implications as well as directions for future research are discussed.

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INTRODUCTION

MEN AND WOMEN IN MANAGEMENT

The past twenty five years have seen a huge growth in the study of women in management. As more and more women enter organizations than ever before (Freedman & Phillips, 1988; Haslett, Geis and Carter, 1992), gender and the workplace have "become a social issue" (Brown, 1979) through such activities as employment equity and sexual discrimination legislation. This steady entrance of women into the work place is evidenced by their contribution to employment growth. Between 1981 and 1986, women represented 94% of Canada's employment growth and by December 1987, over 56% of women were employed or seeking employment as compared to 75.4% for men (Labour Force Activity, 1986 cited in Rowney & Cahoon, 1990). This increase of women in the workplace includes women from a variety of educational backgrounds. In 1986, 40% of working women had obtained post-secondary education and 51.6% had secondary education, whereas working men had lower educational levels, at 37% and 49.8% respectively (Labour Force Activity, 1986 cited in Rowney & Cahoon, 1990).

These statistics would appear to indicate that women's participation in the workplace is increasing at a rapid pace. Yet, the picture is not as glowing as it would appear. The female workforce is primarily concentrated in low status and low paying jobs. Rowney and Cahoon report that women account for only 8.1% of executives, 16.7%

of middle managers, and 30.4% of first line supervisors. These figures are not representative of women's recently increased percentage participation in the workplace. Riger and Galligan (1980) note that in the United States "only 5% of *all* working women are in managerial positions, whereas 15% of all working men are managers" (*italics added*). In addition, they also point out that 82% of all managers are male. The Canadian statistics in 1990 are not much better with about 23% of all managerial positions being occupied by women and 77% occupied by men (Rowney & Cahoon, 1990).

Movement of women into the workplace is characterized not only by their lack of representation in the higher levels of organizations. They have also been poorly stereotyped with respect to managerial ability and qualities. Generally, society's perception of women as managers has been negative, with the belief that men make better managers than women, and that women are typically not suited for management. The typical feminine characteristics attributed to women have been used as the rationale for their exclusion from higher positions within organizations (Dipboye, 1987). This has contributed to the low representation of women in upper level managerial positions.

The workplace is becoming more and more diverse, and this is affecting the needs and demands of its constituent organizations. The role of management is changing with this changing workplace, and so too are the roles of men and women within

management. As this occurs, there is a greater need for organizations to develop a better understanding of their male and female managers.

This thesis starts with a review of literature on women in management, including perceptions about their managerial effectiveness. In addition, the empowerment process defined by Eylon (1993) will be introduced, along with its application to men and women in management. Empowerment has become a buzzword in organizations and is receiving significant attention from those organizations seeking to improve performance. An examination of the job performance of male and female managers will be assessed under conditions of an empowerment process manipulation.

CHAPTER 1

LITERATURE REVIEW

Perceptions About Management Characteristics

Women are not advancing to the upper-level positions in their organizations. Why are there comparatively so few women in the upper echelons of organizations? For many years researchers and organizations believed that for women to be successful they would have to adopt traditional male behaviours (Freedman & Phillips, 1988). This emphasis on sex-characteristic stereotypes focused on the assumed "personality characteristics and behaviour patterns of women" (Riger & Galligan, 1980) as the rationale for their low positions within organizations. Successful managers were posited to have masculine characteristics, and women were perceived to not have these qualities. Many cultures, including our own, "attribute[d] dominant, aggressive qualities to males and passive dependent qualities to females" (Chapman, 1975). Women were believed to make "inferior administrative leaders" (Bartol, 1978), as they stereotypically did not have these masculine characteristics.

Perceptions about people make up a significant component of how we deal with and react to each other. Such perceptions can shape how organizations hire, fire and evaluate their employees. Women are subject to perceptions that often involve traditional gender stereotypes. As a result they are often "seen as less intelligent,

less competent, and less 'suited to authority' than they really are" (Haslett et al., 1992, p. 23). Such perceptions of women in managerial positions were investigated by Schein in her study on the relationship between sex role stereotypes and management characteristics. In this study, Schein noted that "sex role stereotypes may effectuate the perception of women as being less qualified than men for high-level management positions" (Schein, 1973). In addition, she found that "successful middle managers are perceived to possess those characteristics, attitudes and temperaments more commonly ascribed to men in general than to women."

The subjects in Schein's study consisted of 300 middle line male managers, which raised the question as to whether women managers held similar perceptions about themselves and management characteristics. To answer this, Schein (1975) repeated her 1973 study using 167 female managers, and again found that successful managers were perceived to possess characteristics commonly ascribed to men. She posited that such findings suggested that women who wish to succeed in organizations need to accept stereotypical male characteristics such as aggressiveness and dominance.

In their study to determine if such perceptions remained the same in 1979, Massengill and Di Marco found that managers and men were perceived as more similar than were managers and women (Massengill & Di Marco, 1979). In this study of 83 female and 77 male subjects, they also found that both female and male subjects thought that

women lacked the perceived dominant-aggressive characteristics of successful managers. These results apparently support Schein's studies of perceptions about female and male managers.

Findings that identify successful managers as having perceived masculine characteristics may lead managers and employers to believe that the sex-characteristics stereotypical of individuals can be used as indicators of their performance as managers. This is because stereotypes often operate as "implicit knowledge" (Haslett et al., 1992, p. 33) when we have little solid information upon which to base conclusions. Further to this, it is commonly believed that sex and sex-characteristic stereotypes are equivalent, and thus the sex of an individual can be used to form a basis for judgement. This can be detrimental to both females and males alike.

In discussing stereotypes, it is necessary to differentiate between sex role stereotypes and sex-characteristics stereotypes. Terborg (1977) defines sex role stereotypes as "widely held beliefs concerning appropriate male and female behaviour." Whether or not an individual is capable of displaying the behaviour in question is not an issue in this stereotype. Rather, this is a normative stereotype that identifies how men and women *should* behave, and what qualities and attributes they *should* possess. Unlike sex role stereotypes, the sex-characteristics stereotype does involve perceptions about an individual's abilities. Terborg defines these as "widely held beliefs concerning sex

differences on various personality traits." These are attributes that are considered to be characteristics of men or women. Specifically, women are typically believed to be sensitive, warm, emotional and understanding (to name a few). Men, on the other hand, are believed to be more task-oriented, aggressive, individualistic, dominant and rational. It is these characteristic stereotypes that are in question when gender is discussed in relation to managerial competence or ability.

Sex and Leadership Styles

Much of the research on successful managers and sex-characteristic stereotypes has focused on leadership styles and power strategies. Men are seen as being more likely to characterize themselves as 'transactional' leaders. They are "more likely to use power that comes from their organizational position and formal authority" (Rosener, 1990). On the other hand, women describe themselves in "ways that characterize 'transformational' leadership. They ascribe their power to personal characteristics rather than to organizational stature" (Rosener, 1990).

A number of perspectives regarding this relationship between sex, power and management style have been developed in the research on women and management. The gender-centred perspective argues that there are "inherent differences in the ways that men and women behave in the workplace" (Mainiero, 1986) and that generally, the attributes that individuals perceive they possess will differ according to

their gender (Fagenson, 1990). Under this perspective, these differences in attributes are considered to be a result of learned experiences and socialization processes, and will appear regardless of the position that an individual occupies in an organization. The situation-centred or structuralist perspective argues that individuals in positions low or lacking in power will be more dependent on others, and will behave in a powerless manner regardless of their sex (Mainiero, 1986; Fagenson, 1990).

Related perspectives are the gender-organization approach and the gender-organization-system approach (Fagenson, 1990). Each involves a combination of the gender-centred and situation-centred perspectives. The former suggests that sex and organizational level make "*independent and linear* contributions to the attributes that individual's perceive they possess." This perspective agrees that both gender and organizational level affect how individuals perceive their attributes. Under this perspective, men will perceive themselves as more masculine, as will upper level individuals. Similarly, women will perceive themselves as more feminine, as will lower level individuals (Fagenson, 1990). The latter approach suggests that individuals' perceptions are influenced by "both their level in the organizational power hierarchy and their sex" in a *nonindependent and nonlinear* manner (Fagenson, 1990). The perception of masculine and feminine characteristics in this perspective can differ at each level of the organization.

Fagenson (1990) points out that although women generally reported being more

feminine than men, individuals in the upper levels perceive themselves as being more masculine than those in the lower levels. She also notes, though, that the labelling of upper managerial characteristics as masculine "is a misnomer and may cause confusion." She suggests that such characteristics should be called "upper-level attributes." These findings also indicate that although individuals in upper levels perceive themselves as more masculine, location in the lower levels did not "promote a feminine identity... although lower level individuals were found to perceive that they had significantly less power" (Fagenson, 1990, p. 209).

These approaches indicate the complexity of the issue of men and women in management. There are a variety of factors, such as sex-characteristics and organizational level, that can be used to explain the representation of men and women at the various levels within organizations. Of note in these four perspectives is that each is dependent upon individuals' perceptions about themselves, and not on actual characteristics. In her examination of these four approaches, Fagenson (1990) notes that although individuals' perceptions about themselves do indeed affect what they do, "the actual sex role [meaning characteristic] identities of individuals in corporations are as yet unknown". Thus any examination of perceived attributes, sex, and power is restricted in its application by actual organizations. Namely, organizations cannot rely on sex-characteristics to rationalize their placement of men and women in management.

For years women have been considered to possess exclusively feminine characteristics, and men to possess exclusively masculine characteristics, yet this may not be entirely so. Sex characteristic stereotypes are "widely held *beliefs* concerning sex differences on various personality traits," (my emphasis) and they do not necessarily apply to "*all* subgroups or to *all* individuals within a subgroup" (Terborg, 1977). Sekaran (1990) notes that some research has focused on the perspective that women are not socialized in the *masculine* ways of organizations, and that in many cases the differentiation between masculine and feminine has "rather inappropriately been translated to become a synonym for 'men' and 'women'". Likewise, effective managerial characteristics which are currently defined as being masculine could more appropriately be defined as high or upper level characteristics, as suggested by Fagenson (1990).

Empowerment

Recently, the term "empowerment" has become a buzzword in industry. Organizations that wish to be more successful are encouraged to empower their employees. Yet, through all of this there has been little progress in defining empowerment as a concept or process. Eylon (1993) has attempted this in her doctoral dissertation entitled "Empowerment: A Multi-Level Process". She stated that empowerment is:

... an enhancing and energizing context specific process that expands an individual's power and feelings of trust, is usually facilitated by another, and results in increased levels of self-esteem, self-efficacy and other characteristics related to personal growth and control, which eventually lead to outcomes such as performance and satisfaction."

(Eylon, 1993, p. 30)

This thesis is based on the data collected by Eylon (1993), with the intention to examine the relationship between managerial performance, the empowerment concept and individuals' sex differences.

In defining the empowerment concept, Eylon described three factors that make up the empowerment process: information; active belief; and responsibility. The availability of information is important to the empowerment process as "the possessor of information has power over others who do not possess that information" (Eylon, 1993, p. 38). Active belief involves letting the individual know that you have confidence in them. It involves positive expectations for subordinate's performance, along with encouragement and trust. In defining active belief Eylon notes, "it is important to acknowledge people's particular needs and affirm their sense of worth" (1993, p. 41). The last factor, responsibility, relates to whether an individual is in charge of something. Eylon cites McGregor (1957) as suggesting that not only do individuals accept responsibility, they seek it out. She also points out that there is an "element

of responsibility in all interactive relations," and that "responsibility and accountability have direct influence on power and trust." (1993, p. 43).

Given the often confusing and disparate research on men and women in management, it is difficult to ascertain how this empowerment process would affect men and women in management. The sex-characteristics ascribed to women are often based on the different socialization that they receive from men. Although they are not a basis for evaluation or placement, the sex-characteristics of individuals and their socialization may indeed be differentially affected by empowerment. Female and male managers describe themselves in different ways (Rosener, 1990). This reflects their different perceptions about themselves as managers. If these perceptions reflect a different managerial style, then the empowerment process may be utilized and responded to by each sex in a different manner.

Managerial Performance

The term managerial performance refers to the actual contribution of a manager to an organization. It is typically "determined by ability as well as motivation" (Dolan & Schuler, 1994, p. 265), although it can also be affected by a manager's organizational situation. Those with high performance are considered to be more effective, and to contribute more to the organization, than those with low performance.

Summary

The research on women in management and sex differences is "confusing at best" (Inderlied & Powell, 1979). Differences in managerial style are found between men and women in some studies (Bartol & Butterfield, 1976), but yet in others no differences are found. When factors such as age, organizational tenure, education and experience are controlled, sex differences tend to disappear (Korabik, 1990; Riger & Galligan, 1980). In addition, in their examination of over 2 000 people, Donnell and Hall (1980) found that "women, in general, do not differ from men, in general, in the ways in which they administer the management process." They add that the disproportionate numbers of women in management can not be explained any longer by the argument that women practice a different type of management than do men. The biological sex of the leader does not appear to be a useful predictor of job performance in the case of individual performance as managers (Bartol, 1978).

Given the various theories and confusing research on women in management, how does this empowerment process fit with gender differences? With all of the research to date, and the four approaches to sex and level in the organization as described above, it is difficult to ascertain whether men or women are any different in their performance as managers. The purpose of this study was to determine if differences exist in managerial performance between groups of female and male MBA students, given the same managerial simulation.

Hypothesis:

H_0 : Female and male MBA students do not differ in their total performance on managerial tasks.

H_1 : Female and male MBA students do differ in their total performance on managerial tasks.

Research questions:

1. Do differences exist between the performance of empowered female and male MBA students on managerial tasks?
2. Do differences exist between the performance of disempowered female and male MBA students on managerial tasks?

CHAPTER 2

METHOD

This thesis involves a secondary investigation of data collected by Eylon (1993). The complete method from her dissertation can be found in Appendix A. In summary, the investigation was a between-subjects, pre-test post-test experimental design. The investigation utilized a managerial in-basket simulation to examine the empowerment process model defined by Eylon (1993). There were two treatment groups and a control group. The treatment groups were involved in either a "disempowerment" or an "empowerment" process manipulation. The MBA students who volunteered for the "Managerial Effectiveness Program" were randomly assigned to their various groups.

The manipulation of empowerment and disempowerment involved the adjustment of the levels of active belief, responsibility and information in an in-basket simulation. Eight performance variables were measured: initiative; sensitivity; planning, organizing and scheduling; delegation; administrative control; problem analysis; judgement; and decisiveness. A ninth dependent variable, job satisfaction, which was measured by Eylon is not used in this thesis. For the purpose of this study, these eight performance variables were standardized and summed to reach a value for a "total performance score", which was used as the dependent variable in some analyses. Direct involvement by the author in the collection of data for the purposes of this thesis was in the preparation of materials for each simulation, the

administration of some simulations, and the scoring of approximately 75% of the in-baskets.

Overview of Procedure

This section provides a brief overview of the procedure followed during this research. The complete procedure from Eylon (1993) can be found in Appendix A.

Participants took part in three sessions held over a period of about three weeks. These three sessions took four hours in total to complete. At each session participants were given a brief introduction and were then provided with their personalized envelopes containing the in-baskets. The first session included a reminder of the sequence of the sessions and the task that participants would be involved in. The request for confidentiality and consent, and demographic information were obtained in this session prior to the first in-basket exercise being started. Participants were allotted 45 minutes for this part of the first session. After all were finished, participants were instructed to commence the first in-basket exercise, for which they were allotted another 45 minutes.

The second session consisted of another 45 minute in-basket. After this session, participants were reminded that the last session would be longer than the first two, and that it would be the crucial one for their feedback. At the third and final session,

participants were again reminded that this was the one from which they would receive feedback. To ensure confidentiality was maintained, each in-basket was placed in an unmarked envelope within a personalized envelope. These unmarked envelopes and in-baskets were later numbered and scored. A difference between this session and the previous two was that participants received company letterhead/memo paper rather than blank paper. Participants were given 90 minutes to complete this exercise. After the last in-basket exercise, participants were reminded that they could sign up for a feedback session.

Overview of Manipulation

A complete description of the manipulation from Eylon (1993) can be found in Appendix A.

The empowerment or disempowerment manipulation was located within the three in-basket exercises conducted. The last exercise was the in-basket in which the dependent variables were measured. The manipulations included, "providing or censoring general company information, sharing or withholding responsibility, and actively providing or reserving indications of trust, faith, and belief in the person's knowledge and abilities" (Eylon, 1993, p.60).

There were 18 manipulations in the first in-basket exercise, 21 in the second , and 27

in the last session. In addition, during the last session, those in the empowerment group had their own personalized memo paper, whereas those in the disempowerment group had to cross out the former incumbent's name from their memo paper. As a result, there was a manipulation every time a memo was written by participants in these two treatment groups. The manipulation was both pre-tested and pilot-tested, and the complete description of these procedures can be found in Appendix 1.

Participants in all three groups received a set of letters and memos during the in-basket procedure. Effort was made to design the in-basket so that the control group participants received items similar to what a typical manager might expect to receive. To achieve this sense of realism, the in-baskets contained a variety of correspondence types, such as letters, memos, and phone messages. In addition, the writing styles in the correspondence were varied to include both formal and colloquial language. Examples of the in-basket items from the first session can be found in Appendix 2.

CHAPTER 3

RESULTS

Descriptive Information

There were 135 participants in this study, 51 of whom were female and 83 of whom were male (sex was not reported by one participant in the empowerment treatment group). Of the MBA students who voluntarily participated in all three sessions, 43% were first year students, 39.3% were in their second year, and 17.7% were part-time (evening) students. Of the 135 participants, 109 indicated that they had full-time work experience. For 33% of these participants, this work experience was less than two years, whereas 57.8% of the participants had work experience ranging from two to eight years. Only 9.2% had work experience over 8 years. In return for their participation in this study, the students were offered a workshop in which they could receive feedback on their performance.

At the end of all three sessions, there were 47 participants in the control group, 42 in the disempowered group and 45 in the empowered group (as noted above, one participant's score was not analysed as no sex was reported). Eylon (1993) reports that the attrition rate over the three sessions was 29%, and was evenly distributed among all three groups. She further notes that since initial assignment to groups was conducted randomly, and attrition was evenly distributed, this indicates "that attrition

would not have caused a confound with the independent variable" (Eylon, 1993, p. 72). All analyses in this study were conducted using SPSS/PC+ 5.0.

Dependent Variables - Statistical Analyses

A two-way ANOVA was performed on the summed variable of total performance for the three groups (control, empowered, disempowered) and for the sexes of the participants in each group. The descriptive statistics for the total performance variable can be found in Table 3.1. Of the 135 participants, 134 cases were available for analysis. The Cronbach's alpha reliability for the total performance was calculated as 0.8824.

Table 3.1: Descriptive Statistics for Total Performance Score

Treatment Group	Male				Female			
	No.	Mean	SD	Std. Error	No.	Mean	SD	Std. Error
Control	31	0.9416	5.1288	0.9212	16	2.1360	4.6464	1.1616
Empowered	27	-4.2204	5.8174	1.1196	18	2.1953	5.7529	1.3560
Dis-empowered	25	-0.3407	4.6624	0.9325	17	1.1523	7.4883	1.8162

The results of the two-way ANOVA indicate that at a significance level of 0.05, the treatment group of an individual did have a main effect on the total performance (Table 3.2). For the treatment group main effect, $F(2,128) = 3.784$ with an observed level of significance of 0.025. There was also a significant main effect for the sex of an individual, with $F(1,128) = 9.629$ ($p = 0.002$). The female participants had significantly higher scores than the male participants. In addition, the test indicates that there was no interaction between treatment group and sex. The F associated with the interaction between treatment group and sex of participant is 2.950 ($p = 0.056$).

Table 3.2: Two-Way ANOVA for Total Performance by Treatment Group and Sex¹

Source of Variation	Sum of Squares	Degrees of Freedom	Mean Square	F Ratio	Significance of F
Treatment Group	510.444	2	117.503	3.784	0.025
Sex	235.005	1	298.970	9.629	0.002
Interaction	183.175	2	91.587	2.950	0.056
Residual	3974.403	128	31.050		
Total	4668.021	133	35.098		

¹ A high score indicates high performance on the in-basket simulation, and a low score indicates low performance on the simulation. All scores are standardized, and as such, the mean is zero.

Tukey's comparison was conducted for the three treatment groups to identify where the significant effect for group was located (Hakstian, 1994). The control group scored significantly higher on total performance than the empowered group ($q' = 3.612$, $q_{(3,120)} = 3.36$). No significant difference in total performance was shown between the control and disempowered groups ($q' = 1.268$), nor between the empowered and disempowered groups ($q' = 1.617$).

In order to better understand the significantly lower total performance scores of the males when compared to the females, further analyses were conducted on the eight dependent variables that constituted the total performance score. Each of these eight standardized dependent variables were grouped into one of three areas defined by Nowack (1988). These groupings are shown in Figure 3.1.

Performance Variables	Managerial Areas		
	Personal/ Interpersonal	Administrative	Decision Making
	Initiative	Planning, Organizing and Scheduling	Problem Analysis
	Sensitivity	Delegation	Judgement
		Administrative Control	Decisiveness

Figure 3.1: Categories of Performance Variables

Two-way ANOVAs were conducted for the three managerial areas - personal/interpersonal, administrative, and decision making. The Cronbach's alpha reliabilities for each of these managerial areas were calculated as 0.7296, 0.5295, and 0.8319 respectively. The descriptive statistics for these areas are shown in Table 3.3.

Table 3.3: Two-Way ANOVA for Performance in Each Management Area, by Treatment Group and Sex

Management Area	Group	Male				Female			
		No.	Mean	SD	Std. Error	No.	Mean	SD	Std. Error
Personal/ Interpersonal	E	27	-1.177	1.7378	0.3344	18	0.5375	1.7190	0.4052
	C	31	0.3277	1.6197	0.2909	16	0.2924	1.5375	0.3844
	D	25	-0.0695	1.4207	0.2841	17	0.5298	2.1680	0.5258
Adminis- trative	E	27	-1.1302	1.9810	0.3812	18	0.7807	2.0631	0.4863
	C	31	0.3032	1.8509	0.3324	16	0.9378	0.2924	0.5731
	D	25	-0.3966	1.8949	0.3790	17	0.2275	2.5698	0.6233
Decision Making	E	27	-1.9131	2.5965	0.4997	18	0.8770	2.4560	0.5789
	C	31	0.3107	2.4834	0.4460	16	0.9059	1.6080	0.4020
	D	25	0.2011	2.0616	0.4123	17	0.3951	3.1594	0.7663

For the two-way ANOVAs conducted, significance levels were established at Bonferroni stepped down levels of 0.0167. The two-way ANOVAs conducted on the three dependent variable areas indicate that each of these three areas had significant main effects for the sex of the participant, with the female participants scoring higher

than their male counterparts (Table 3.4). There were no significant effects for treatment group in any of the three areas.

Table 3.4: Two-Way ANOVA for Managerial Area Performance by Treatment Group and Sex

Managerial Area	Source of Variation	Sum of Squares	Degrees of Freedom	Mean Square	F Ratio	Signif. of F
Personal/ Interpersonal	Treatment Group	18.147	2	9.074	3.168	0.045
	Sex	18.621	1	18.621	6.502	0.012
	Interaction	16.775	2	8.388	2.929	0.057
	Residual	366.562	128	2.864		
	Total	418.758	133	3.149		
Administrative	Treatment Group	23.514	2	11.757	2.747	0.068
	Sex	37.632	1	37.632	8.792	0.004
	Interaction	11.009	2	5.504	1.286	0.280
	Residual	547.841	128	4.280		
	Total	616.676	133	4.637		
Decision Making	Treatment Group	47.726	2	23.863	4.001	0.021
	Sex	46.800	1	46.800	7.848	0.006
	Interaction	41.398	2	20.699	3.471	0.034
	Residual	763.340	128	5.964		
	Total	895.794	133	6.735		

The last statistical test conducted on this data was to confirm that the sex of participants was having an independent effect on the dependent variable (standardized total performance). The results are in Table 3.5. There was concern that the ethnicity of participants might be a covariant with sex on the scores of participants (Eylon & Au, 1994). This was tested by conducting a multiple regression using probability of F to enter = 0.05, and probability of F to remove = 0.10. Participants were classified as either white or non-white (identified as Hispanic or Asian). The non-white classification was created because only one participant indicated a Hispanic background; all other participants identified themselves as either white or Asian. Forty non-white and 94 white participants' scores were used in calculating this multiple regression.

The results of the hierarchical multiple regression indicated that both ethnicity and sex of participant had a significant effect on the total performance score. Additionally, these two variables operate independently of each other, as indicated by the significant change in F for Step 2, when sex of participant was forced into the analysis.

Table 3.5: Hierarchical Regression Analysis for Total Performance

Step	Variable	DF	Mean Square	Adjusted R sq.	R sq. change	F change	Signif. F change
1	Ethnicity	1,132	330.7927	0.0638	0.0709	10.0674	0.0019
2	Sex	2,131	282.1429	0.1075	0.0500	7.4536	0.0072

Summary

The alternative hypothesis that differences in performance score would exist between the men and women was supported by this data, with the women scoring significantly higher than the men. In addition, the analyses showed that there was a main effect by treatment group on job performance, with control group participants having significantly higher total performance than the disempowered and empowered groups. When the total performance score was broken down into the three areas - personal/interpersonal, administrative, and decision making - women were shown to have higher scores than men in each of these three areas. No significant effect for group was found on these tests.

CHAPTER FOUR

DISCUSSION AND CONCLUSIONS

Overview

This discussion will include an overview of the results and their associated implications. Included will be explanations for the significant differences in total performance between the female and male participants. The lack of significant effect on total performance by treatment group, along with the lack of significant interaction between the treatment group and sex of participants will also be discussed.

With regards to the validity of the in-basket for measuring the eight dependent performance variables, Eylon (1993, p. 99) reports that the in-basket chosen for the final session in the simulation has a "high inter-rater reliability of 0.93 ... in addition, it has criterion-related validity with supervisory performance ratings of 0.27." She further notes that this is a high level of validity when compared to those of other reported tests on similar measures (ranging from -0.25 to 0.36), and suggests that this measurement tool is both reliable and valid. One other concern is the effect of other variables on the participants' scores. Some of these other variables could have been educational background, age and work experience. Given that these participants were randomly selected and assigned to their groups, it can be assumed that they were not

subject to the effects of such other variables, as these variables should have been randomly distributed within each group. In addition to the random selection and assignment of participants to their groups, each participant was assigned to the same organizational position and responsibilities as other participants. This mitigates the effect of external organizational factors other than those being manipulated.

Discussion of Findings

The results from this study provide evidence that the female participants scored significantly higher in total performance than their male counterparts. This significant difference was also seen for the three managerial areas that constitute total performance - personal/interpersonal, administrative, and decision making. In addition, although the control group had significantly higher total performance scores than the empowered group, no significant differences in total performance scores were seen between the empowered and disempowered groups, or between the control and disempowered groups.

Gender and Total Performance

It was noted earlier that any possible sex differences generally disappear when such factors as age, organizational tenure, education, and experience are controlled (Korabik, 1990; Riger and Galligan, 1980). This would suggest that men and women

would perform similarly on the same managerial tasks. Yet, this was not evidenced given the higher performance scores for the women as compared to the men, both in total performance and in the three managerial areas.

Generally, the reduction in difference between men and women in management as organizational tenure, age and education increase can be attributed to a variety of factors. Some researchers support the premise that these managerial women have taken on 'masculine' characteristics to succeed. Others suggest that the socioemotional socialization that women undergo is unconsciously 'mitigated' by the exposure they acquire in positions of management, as opposed to a deliberate decision to be more 'masculine'. Dipboye (1987) reports that managerial women differ substantially from the stereotypes of the 'typical' woman and that these managerial women typically score higher on 'masculine' personality traits. He further points out that the more time a woman spends in management, the less she is likely to differ from her male counterpart. Brenner (1982, p. 382) notes that less educated females are less dominant and more nurturant than less educated males, yet these differences are highly reduced for dominance and almost eliminated for nurturance when higher educated men and women are compared.

Typically, women are considered to receive socialization on feminine sex characteristics, and this socialization includes being more supportive, working more for the group as opposed to the self, and being more affiliative (Van Wagner and

Swanson, 1979). Likewise, men are also subject to socialization processes that affect how they do their work and function as managers. Men generally receive socialization in masculine stereotypical behaviour, which includes being more aggressive, working for the self over the group and being less affiliative.

It is possible that such factors as organizational tenure and education may indeed affect many managerial women, but is also possible that any masculine characteristics demonstrated by these women may be additive - they exist in addition to their socialized feminine sex characteristics. Many managerial women are expected to conform to feminine sex characteristics while trying to be successful and effective as managers. By developing additional skills that match the masculine characteristics typically attributed to effective managers, these women may be adding to their current base of managerial styles, as opposed to replacing them. As such, the female participants may have had a wider base of socialization to draw from during the in-basket exercises. This in turn could have contributed to the higher scores of these women in each of the managerial areas of the study.

Old and New Styles of Management

Recently, research has been conducted into the *new style* of management. The focus of this research is the reduction of hierarchical organizations and traditional power bases (Kanter, 1989). In this new environment, the loss of organizational and

hierarchical power can severely affect individuals who formerly relied on it as the basis for their authority. As a result of this unfamiliar environment, these managers may perform less effectively than they did before.

The in-basket exercise used in this study contained items that were scored on three managerial areas - personal/interpersonal, administrative, and decision making. As such, in this exercise participants were scored on more than may have been expected of a manager in the *old style* work place. The in-basket may have been more reflective of the *new style* workplace because scores were based on both personal/interpersonal responses and task-oriented responses.

With regards to the socialization of men and women as discussed earlier, the female participants may have had a wider base of characteristics to draw from in their responses to the in-basket items. Generally, they have been socialized to share information and power, and to encourage participation (Rosener, 1990), and use personal power more than organizational or hierarchical power. Some studies of female managers have indicated that these women express "connective values relative to the sharing of power, to the empowerment of others, and to social concerns" (Konek, 1994). The premise of some researchers today is that "for women, power is likely to be viewed as relational, consensual, and contextual, rather than as hierarchical or structural" (Konek, 1994). Thus, they may be better equipped to deal with this *new* work place than men who concentrate on "manipulating, analyzing and

restructuring the world around them" (McClelland, 1976; cited in Van Wagner and Swanson, 1979, p.69).

In this study, the in-basket exercise was set-up in such a way that participants took on the role of a new employee in the organization. It is likely that this would have limited any form of positional or hierarchical power that can typically build with increasing organizational tenure. Kanter suggests that managers who formerly relied on their hierarchical power for authority will need to learn to shift their perspectives. Men who have been socialized to have masculine sex characteristics, may have their performance limited because they do not have positional power to use. Whereas *old style* work places limited the scope of personal control and did not allow individuals to work outside of a well-defined range of responsibilities (1989, p.92), more and more, managers will be required to work in the *new style* work places. This will require them to expand their focus and to work in environments that are more collaborative and allow more communication between all levels. In a separate article, Kanter notes that female executives believe that sharing power and information is important within the workplace for enhancing communication flow, solving problems and creating loyalty (Kanter, 1990, p.123).

Glass Ceiling

In their discussion on performance, authority and leadership, Haslett et al. (1992, p.

37) note that even when women are objectively found to be equally competent as men, the men are still *judged* to be more competent than the women. Additionally, women have generally been perceived to be less intelligent and suited to authority than men. It is noteworthy that women have also frequently perceived themselves to be less suited for management than men.

Another possible explanation for the higher total performance by women than men is that the female MBA students may have stronger managerial skills than their male counterparts due to the glass ceiling phenomenon. This phenomenon is defined by Morrison et al. (1987, p. 13) as, "not simply a barrier for an individual, based on the person's inability to handle a higher-level job. Rather, the glass ceiling applies to women as a group who are kept from advancing higher *because they are women*." Women who believe that they do not stand a fair chance as a manager due to the glass ceiling may be less likely to pursue a managerial career, whereas equally qualified men may choose to pursue a similar career. This can result in the average female manager "having stronger credentials ... than the average male [manager]" (Powell & Butterfield, 1994, p. 82). Such an effect may be evident in this study, where the female MBA participants had higher total performance than the male MBA participants.

Tolerance for Ambiguity and Cognitive Complexity

The tolerance or intolerance for ambiguity is another explanation for the sex differences seen in total performance. Budner (1962, cited in Rotter and O'Connell, 1982, p. 1210) defined "intolerance for ambiguity as the tendency to perceive ambiguous situations as sources of threat." Rotter and O'Connell note that those who are tolerant for ambiguity have a better capacity for the assimilation of diverse information than those who are intolerant for ambiguity (1982, p. 1211). The in-basket exercise may have been ambiguous to participants, given the diverse nature of the items provided, and lack of familiarity with the organization.

In their examination of tolerance for ambiguity, Rotter and O'Connell determined that sex was significantly related to intolerance for ambiguity ($F(3,281) = 3.265, p < 0.014$). Specifically, they found that females were significantly more tolerant for ambiguity than males (1982, p. 1213). They conducted further tests on levels of cognitive complexity, which is the level of multidimensional orientation that an individual possesses. Those with a "concrete cognitive system are less able to tolerate disharmony and inconsistency in their assumptions... than those with abstract cognitive systems" (1982, p. 1211). The results from these cognitive complexity tests also indicated sex differences ($F(1,283) = 5.016, p < 0.026$), with females being significantly more complex in style than males.

As with ambiguity, the in-basket exercise may have created an environment that was complex for participants. They had to sort through items and respond as best as they could in a restricted amount of time. Generally, the greater intolerance for ambiguity and more concrete cognitive systems of male participants may have reduced their ability to respond as effectively to the in-basket as the female participants did.

Effective Management Characteristics

It was noted earlier that one method to reduce gender inequities and sex characteristic stereotyping in the workplace would be to label masculine characteristics as high level or effective manager characteristics. This may not be an entirely accurate portrayal of effective management. Researchers are beginning to show that effective managers can have both feminine and masculine characteristics, and some propose that an androgynous manager, having a number of both stereotypes' characteristics, is the most effective type of manager (Korabik, 1990). This suggests that the masculine, dominant, aggressive style of management is not the most effective style after all. Yet, this is what both men and women are generally socialized to believe.

Further Analysis

As was outlined in the Results chapter, further analyses were conducted on the eight

dependent variables that together comprised three managerial areas - personal/interpersonal, administrative, and decision making. For each of these areas, a significant sex difference was found, with the women scoring higher than the men. Understanding the responses of these men and women to the in-basket exercise merits further study into the relationship of each of these managerial areas to such individual aspects as cognitive complexity and tolerance for ambiguity.

In addition, significant differences for treatment were found only between the control and empowered groups. The lack of significant differences between treatment groups on job performance was broached indirectly by Eylon (1993, p. 90) who analyzed each performance score separately, and not as a total score. She discussed such reasons for this lack of significance as including: motivation, instrument-psychometric properties, the performance-satisfaction relationship, the attitude-behaviour relationship, and the relationship between time and behavioural results." Such reasons may apply to the limited significant differences shown for total performance. This study was interested in focusing on possible interaction between sex and treatment group, but there was no significant interaction between the sex and treatment group of participants. This relationship also merits further study.

Earlier it was noted that there are a number of different perspectives that are applied to gender and power within organizations: gender-centred; situation-centred; gender-organization; and gender-organization-system. The lack of significant interaction

between sex and treatment group do not support the perspective that both organizational power and individual sex behave in a nonindependent and nonlinear fashion. This provides a forum for further study into the relationship between gender and organizational power.

Implications

The use of biological sex as the basis for forming perceptions and making judgements about an individual as a manager is not a sound practice. Although men have different biological backgrounds than women, and may receive different socialization, both sexes can be greatly changed by their "training and life experience[s]" (Haslett et al., 1992, p. 33). There is no firm basis for assigning sex-characteristics stereotypes to individuals within organizations. In support of this premise, Korabik (1990, p. 286) points out that past researchers have found that sex-characteristics stereotypes do not conform to the premises of "biopsychological equivalence", which is the belief that all males are masculine and all females are feminine. The use of the terms 'masculine' and 'feminine' in referring to managerial characteristics are likely misnomers, as suggested by Fagenson (1990). She proposes that those qualities of effective managers should be labelled as 'effective' or 'high-level' managerial attributes, without any involvement of sex-characteristics stereotypes.

Many discussions about masculine, feminine, and effective managerial characteristics

assume that those characteristics demonstrated by effective managers in the past are necessarily the best ones to possess. These supposed characteristics of effective managers bear some reexamination. The former perceptions were based on men as managers. Unfortunately, the initial research into effective management was conducted solely on male managers, and as such, there is little evidence to suggest that masculine stereotypical characteristics are actually the best managerial characteristics.

As organizations shift from their former hierarchical, old-style patterns, there will be a need for managers who can perform effectively in new-style conditions. Given the differential socialization of men and women, and the diversity of their individual backgrounds, each may have differing potential for performing effectively as a manager. Work experience, age and education may indeed have an effect on individuals' managerial styles, but these styles may be further affected by the individuals' workplace environments.

Limitations of the Study, Directions for Future Research

This was a study of MBA students in a simulated managerial setting, and consideration of this should be made when generalizing to field managerial settings. Recognizing this restriction, future research could focus on actual managers, both in

simulated settings and real workplace environments. In addition, this study did not include an analysis of sex-role identification, which could have been accomplished with the Bem Sex-Role Inventory (Bem, 1974). This tool was developed to allow researchers to assess the sex-role identity of study participants, along the lines of stereotypical masculine and feminine characteristics. It also did not include tests of tolerance for ambiguity or of cognitive complexity (Rotter and O'Connell, 1982). The data obtained from such analyses could have been used to additionally understand the presence or lack of significant differences in performance.

Another analysis that could have been included in this study was an analysis of sex effects in perception of managers. Some researchers have found in studies of business students that the "sex of the manager affects how different managerial styles are evaluated" (Bartol and Butterfield, 1976, p. 452). For the purposes of this study, this identification would involve having each participant identify what sex they believed their immediate manager and subordinates in the simulation were. From this, further analyses could be conducted to see if there is a relationship between perceived sex of the participants' superior/subordinates and performance.

This study occurred over a relatively short time period. As mentioned above, further effects from the treatment may have been realized had the study been repeated at a later date or the three sessions spread out over a longer period.

Contribution and Conclusions

The focus of this research was to provide a better understanding of the differences between male and female managers, specifically in response to an empowering/disempowering environment. Overall, the findings indicate that there is a significant sex difference in managerial performance, with women receiving higher total performance scores than men. No interaction between empowerment treatment and the sex of the participant was found though.

Empowerment has become highly popular within business. It is no simple solution to organizational difficulties, as is evidenced by the reduced total performance scores under empowering conditions as compared to the control group. With performance as a bottom-line result, companies should approach empowerment with caution. This thesis has provided an examination into empowerment and sex differences in performance. It is believed that this will contribute to a better understanding of organizational behaviour, specifically as it applies to women and men within the workplace.

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APPENDICES

Appendix 1

METHOD²

Design Overview

A managerial simulation was used to investigate the empowerment model presented in the previous section. The hypotheses were tested in a between-subjects, pre-test post-test design. The experiment included three groups: a control group and two manipulation groups. The manipulation groups included an "empowerment" group and a "dis-empowerment" group. Participants were randomly assigned to one of the three groups. The empowerment and dis-empowerment manipulations consisted of manipulating information, active belief, and responsibility within the context of an in-basket simulation. The dependent variables consisted of work outcomes as identified by the in-basket task dimensions and by a short job satisfaction questionnaire. In addition, the intra-psychic mediators (self-efficacy, self-esteem, and locus of control) were measured prior to and at the very end of the experiment. In total, participants completed three in-baskets during three sessions over a span of three weeks. Using Cook and Campbell's (1979) notation the design was as follows:

R	O ₁		O ₂
R	O ₁	X ₁	O ₂ '
R	O ₁	X ₂	O ₂ ''

² This appendix is a complete excerpt of the Method chapter from Eylon (1993, p. 52-70). Other appendices mentioned by Eylon are not reproduced in this thesis.

Subjects

Participants were recruited from the University of British Columbia MBA student population. Students were informed, via posters and notices in their mailboxes (or in the case of the evening MBA students, a mailing to their home address) that they would be provided with the opportunity to participate in a new "hands-on" experience for developing managerial effectiveness. The initial notice for the program was written following Dillman's (1978:165) guidelines for coverletters. Care was taken to compose the letter in a short, catchy, and bias free manner (see Appendix 1).

Class announcements of the program were made in early February (1993). During the class announcements the program was presented as an opportunity provided exclusively to the students by the Professional Development Programs and MBA offices in conjunction with researchers from the faculty. Using the table in the pamphlet (see Appendix 2), the presenter briefly explained and described the several stages of the program. Participants were informed that in order to take part in this developmental experience they must commit to all three management simulation sessions. In addition, it was explained that only those who completed all three management simulation sessions would be eligible for the half-day effectiveness workshop and personal feedback. As part of the sign-up process, students were requested to commit to three time slots from the available choices as well as to record their phone numbers.

In total, it is estimated that all 280 full-time MBA students and approximately half of the 160 part-time MBA students were informed directly and provided with an opportunity to sign-up for this program. The remaining portion of the part-time students received the original notice but may not have received a class-time sign-up opportunity. Due to the high response rate, participants were encouraged to write more than one preferred time per session. In total, 189 students signed-up for the program, 177 arrived for the first session (6% attrition), 165 completed the second session (7% attrition), and 135 completed the third and final session (18% attrition), for a total attrition rate of 29%. During the last week of the data collection period, it was discovered that the students had received several unexpected assignments, which explains in part the increased attrition rate. The 135 participants who completed all three sessions had a mean age of 27.13, 38% were female and 62% were male.

Several important precautions were taken in order to ensure the planned course of the study:

- a. All students received a phone call prior to each upcoming session;
- b. At the end of each session students were reminded that a master list of session appointments was in the room, should they wish to verify their next session;
- c. Two back-up people were trained to step in as data collection administrators at any time throughout the program, should the need arise; and

d. Participants received a contact number which they could use should they need to change their scheduled sessions. Since participants could go to any of the available sessions, regardless of the manipulation group they had been randomly assigned to, no complications arose as a result of the requested session changes.

The first and last precautions were very important, especially for the third session. Because of the unexpected time pressure many students felt at school, a higher attrition rate was avoided by being able to recognize the problem and make the necessary scheduling adjustments.

Procedure

In general, participants took part in three session over three weeks, for a total of four hours. In order to increase ecological validity, an attempt was made to simulate as much as possible, a business setting. Since this program was presented as a MBA-PDP program, permission was secured to use the Executive Training facilities for the first two weeks of the program. Since most of the procedure focuses on the in-basket, a description of the nature of this instrument will be provided here.

In-basket exercises are a popular assessment, training, selection, and research tool (Schippmann et al., 1990). Since the first in-basket exercise was developed by

Frederiksen, Saunders, and Wand (1957), this tool has been used in a variety of settings and has been carefully examined. In general, during an in-basket procedure the individual is cast in the role of a supervisor or manager of a fictitious organization. The participant is then requested to respond, within a limited time period, to a set of letters and memos that have accumulated on the fictitious person's desk. Information regarding the role and the organization are also provided (Tett & Jackson, 1990). Despite the debate in the literature regarding in-basket validity and reliability (for a review see Schippmann et al., 1990), the major weakness of this research and evaluation instrument seems to be its "complex, tedious scoring process" (Harlos, 1992:4), which is also the main impediment to the wide spread use of in-baskets (Hakstian et al., 1986). However, one of the biggest assets of in-baskets as managerial simulation is their high face validity (Hakstian et al., 1986) which makes it easier for subjects to become involved in the situation and to assume the role presented to them (Crooks, 1968; Hakstian et al., 1986). As a result, "behaviour elicited in this situation is more likely to be a projection of the subject's usual response in real life" (Crooks, 1968:5). It may be of interest to the reader that despite the wide and broad use of the in-basket technique, to the extent of the author's knowledge, this study is the first of its kind to use existing in-basket exercises to manipulate and compare various organizational variables.

In this study, the sensitivity of the in-basket exercise was used to demonstrate the subtle effects of the manipulation process. In-baskets can be so sensitive that "one

item can introduce stress that will affect responses on all the other items" (Crooks, 1968:5). For example, Crooks (1968) describes one in-basket exercise which included a confidential memo from the new manager's superior suggesting that the plant was in trouble and was being considered for shutdown. Because the mention of a plant shutdown introduced a significant bias on subject's responses, the memo was subsequently revised to delete the mention of plant shutdown, and instead merely asked the new manager to explore the problem and come up with a recommendation. This change was enough to substantially reduce the bias.

Returning to the sequence of events participants experienced in this study: Upon arrival for the initial session all participants were greeted and instructed to choose a seat where paper clips and blank paper were provided. This approach was used as a method to space the participants for maximum comfort. After all participants were seated a brief introduction was given which reminded them of the sequence of three sessions and of the task they would be doing as well as some of the benefits they could receive. Participants then received their individualized envelopes (each person had an envelope allocated to them, with his or her name on it) and were instructed to begin with "Packet 1." Packet 1 included, a request for confidentiality and consent, demographic information (in order to determine whether there were any cultural biases), a short written description putting the participant in a specific organizational setting which was essentially a summary of the role s/he would be assuming during

the simulation sessions⁶, and mediator scales (an amalgamation of self-efficacy, self-esteem, and locus of control instruments). (A complete version of Packet 1 is presented in Appendix 14.) After all participants completed this packet they were instructed to begin with the in-basket exercise, for which a total of 45 minutes was allotted.

This procedure was essentially repeated for all three sessions. The only difference between the first and second sessions was that the second session was shorter, since participants completed only a 45 minute in-basket exercise which was a continuation of the first simulation session. At the end of the second session, participants were reminded not to talk with others about these sessions. In addition, they were reminded that the third session would be longer and would be the critical one for their feedback evaluations. At the beginning of the third session, participants were again reminded that this was the critical in-basket and the instructions were read aloud. To ensure confidentiality, the in-basket was placed in an unmarked envelope inside a personalized one. The in-baskets were later numbered and then scored. The procedure for the last in-basket also differed in that participants were provided with the company's memo paper.

After participants completed the in-basket exercise, they were informed where they

⁶ The purpose of this description was to ensure that the items tapping into the mediating variables would be doing so at the appropriate level, while at the same time not giving them too much information so as not to influence the manipulation.

could sign-up for the feedback session as well as for the final workshop. Next, they were instructed to begin with "Packet 2" which was in their individualized envelopes. This packet included the in-basket's participant report form, the mediator questionnaire, and the manipulation check. (A complete version of Packet 2 is presented in Appendix 15.)

Participants who completed all three sessions were reminded of the opportunity to participate in a Managerial Effectiveness Workshop, as well as receiving their personal feedback information. During the half-day Managerial Effectiveness Workshop participants were fully debriefed. This debriefing included a description of the study as well as a presentation of the theory examined in this dissertation. In addition, two consultants related the in-basket experience and the empowerment process to their experiences in the corporate world. Overall, based on the ratings participants gave both the workshop and the program as a whole, they were satisfied with both the experience and the learning that had occurred. On a 5 point scale, anchored by "Deficient" (= 1) and "Excellent" (= 5), 24 workshop participants (from a total of 29)⁷ gave the Effectiveness Workshop a mean rating of 4.35 (SD=.52). These participants also evaluated the simulation sessions with a mean rating of 3.88 (SD=.59). (A copy of the evaluation form is presented in Appendix 16.) In addition, the overall comments that participants reported at the end of the third session, and before the workshop or

⁷ The relatively small number of workshop participants was due to the fact that it was provided after all students completed their final exams by which time many people had left town.

personal feedback were provided, were quite positive (question #8 in Appendix 10). Prevalent were comments relating to the relevance and insight gained from the in-basket items. For example, statements such as the following were common:

"I found them (the in-baskets) useful and realistic...they gave an indication of some of the constraints for managers. The program will also be useful in terms of possible attendance at assessment centres."

"I don't have any previous experience and this was a great learning experience."

"Very interesting, reminds me a little of my job except more intense...I liked it."

"Excellent, very good opportunity to see how I responded to time constraints and difficult situations."

"(I) got a feel of what it is like to be a manager in a large corporation."

"Exhausting."

Manipulation

The manipulation for empowerment or dis-empowerment was embedded within the three in-basket exercises. The first two in-baskets were modified combinations of two existing in-basket exercises--creativity (Shalley, 1991) and risk (Tse et al., 1988). These two were chosen because they differ in their format from the Organizational Performance Dimensions (OPD) exercise, which was used in the final session and therefore they would not "prime" participants for the third and final in-basket. The

third, and last, exercise was the in-basket in which the dependent variables (job satisfaction and work performance) were measured. This in-basket was developed by Organizational Performance Dimensions⁸; its psychometric properties are reported in the Measures section. To increase face validity and to ensure that participants did not recognize that the three in-baskets were developed separately, continuity was built into the three sessions by modifying the in-baskets so that names, rank, and situations fit a common organization. In addition, an attempt was made to vary the writing styles in the memos, including the use of colloquialism, so as to enhance the sense of realism.

Participants took part in three simulations in order to emulate the passage of time, which as suggested in chapter 1 is critical to the process of empowerment. Manipulations were imbedded in all three in-baskets (i.e. they occurred throughout the three sessions). In the last session most of the manipulations were developed by adding items which did not directly affect the in-basket items which were being evaluated. In other words, the manipulations in the forms of information, responsibility, or active belief were presented so there was no relation between them and the decision the participant needed to make on any one specific in-basket item. As a result, the manipulation groups had slightly longer in-baskets. For this reason the control group received a short article from PC Magazine so that they were kept

⁸ I would like to thank Organizational Performance Dimensions for their generous assistance in allowing me to use their in-basket exercise for my dissertation research.

"busy" while the two manipulation groups read through the additional memos. The manipulations were developed as coming both from people who were above and below the individual in the organizational hierarchy. The manipulations included providing or censoring general company information, sharing or withholding responsibility, and actively providing or reserving indications of trust, faith, and belief in the person's knowledge and abilities. Some of the manipulations were quite explicit while others were developed primarily using style of response. As a sample, the first of the three sessions can be found in Appendix 13.

Overall, there were multiple manipulations for each of the three components (information, responsibility, and active belief). In the first session the manipulation occurred 18 times during the one hour session. In the second session the manipulation occurred 21 times during the 45 minute session. In the last session the manipulation occurred 27 times during the 90 minute session, as well as every time a memo was written. This last manipulation was created by preparing different memos for each of the manipulation groups. Every time the participant wrote a memo a manipulation occurred because in the dis-empowered group, participants were forced to cross out the former incumbent's name and to write in their own, while in the empowerment group they had their own personalized memo paper. Since the dependent variables were measured by participants' performance on this third in-basket, manipulation items were placed towards the beginning of the simulation so that they would have an impact on the entire set of items, and not on only one or two

of the items.

As part of developing the manipulation it was both pre-tested and pilot-tested. First the purpose and process of the pre-test will be described and then the reader will be presented with a brief description of the pilot-test.

Pre-test

The purpose of the pre-test sample was to show discriminant validity and to alleviate any concern that the manipulation items were drawing upon constructs other than the ones they were supposed to manipulate. In other words, this pre-test sample was intended to verify that items used in the manipulation truly represented the three categories of active belief, information, and responsibility. To confirm their association with these categories a technique similar to the Q-sort methodology was employed. Two expert judges were chosen. One of the judges was a faculty member in the area of organizational behaviour from an American university in the Pacific Northwest. The other judge was a middle manager with a large American software company. A sample of the manipulation items was randomly selected and each manipulation set (where a set included both the empowered and the dis-empowered version of an item) was presented on a separate sheet of paper. In addition, items were developed for three "bogus" categories (mood, values, and goal setting) and these items were added to the pool of manipulation sets. In total, each judge received 33 item sets, an

organizational chart representing the organization's structure, and definitions for all six categories. The definitions were as follows:

- 1) Mood: A frame of mind or state of feeling during a particular time (from the American College Dictionary),
- 2) Values: Guiding principles or ideals (from the American College Dictionary),
- 3) Information: Knowledge communicated or received concerning some fact or circumstance,
- 4) Responsibility: What one has when they are in charge of making something happen. Can be as a result of an external assignment or as a result of personal choice or feeling,
- 5) Active Belief: Faith, optimism, implicit encouragement, and positive expectations, all received from others,
- 6) Goal Setting: The process of developing, negotiating, and formalizing the targets or objectives that an employee is asked to accomplish (from Schermerhorn et al., 1991 :201).

Prior to conducting the sorting task the judges received written instructions and an example. The instructions were as follows:

Attached you will find a number of items addressed to J. Carter. Each item is representative of a memo one may receive at work from a variety of different people, and is expressed in two different ways. Please place each set of items in one of the six categories which you have in front of you. Each set of items

is related to one of the six categories. Choose the category which you think identifies the issue on which the two items in each set differ from J. Carter's point of view. Note that sometimes the differences are subtle and may take careful reading and thought to identify the appropriate category. You may also find that the difference is that one of the two items relates strongly to one of the categories, while the other does not. In other words, the difference may be that one item clearly relates to one of the categories (i.e. contains some element of it) while the other lacks in it. In a few instances you will only receive one item. Place the item in the category it fits best. Always keep in mind the receiver's (J. Carter's) point of view, rather than that of the sender.

Initially each judge independently sorted all items into the six categories with which they were presented. During the second stage, the judges met together and in the researcher's presence discussed their choices and made the final sort. The judges were carefully instructed that they must achieve consensus on where to place each item set. The researcher's role was to ensure that the process of achieving consensus was followed and that no bartering, bargaining, or swapping occurred between the two.

The results of the Q-sort on the random sample of manipulation items verified discriminant validity. Except for one item, which subsequently was thrown out, all manipulation items were sorted into the categories as expected by the items' developer. Not surprisingly, the judges sometimes identified that some of the items developed for the three original manipulation categories (information, active belief, and responsibility) also related to the additional categories of mood, goal setting, and values. However, the items developed for the three additional categories were never identified as belonging to one of the study's original categories. In other words, the

study's three categories may sometimes trigger additional constructs such as mood. However, since the competing constructs (goal setting, mood, and values) never triggered the core categories, it is safe to say that overall these constructs are significantly distinct.

In addition to demonstrating that the manipulation items represented the categories for which they had been developed and were distinctly different from other categories, as a result of observing the negotiation process between the expert judges, some of the items were slightly re-worded, and a few additional items were added to the manipulation.

Pilot Study

Ph.D. and recently-graduated MBA students were recruited for the pilot tests. These groups were selected, rather than current MBA students, so as not to reduce the potential MBA student population size. As suggested by Dillman (1978), part of the pilot sample included colleagues who knew of the general topic area. Specialists in the areas of Organizational Behaviour, in-basket development and scoring, as well as in Management Information Systems (the simulated organization's area of specialization was related to computers) were part of the pilot sample. In addition, because English as a second language (ESL) students comprise a significant percentage of the University of British Columbia MBA student population, a Ph.D. ESL

student was also included in the pilot study. In total, nine people participated in the pilot study during two separate rounds. After the two pilot studies were completed participants took part in a group discussion on the experiment and were also individually interviewed at length by the investigator.

As a result of the pilot study, several minor changes were made to the procedure for the main study:

- a. One of the manipulation items was changed from inviting the person to a squash game to inviting them to lunch (so as not to give non-squash players a sense of exclusion),
- b. One of the manipulation items was re-written so that it would be clearer, and
- c. Rather than using blank paper, Servcom memo paper was prepared for the third session.

The results of the pilot study indicated that on all dimensions (change in the mediators, manipulation check, and performance on the in-basket) the two experimental groups (i.e., empowered versus dis-empowered) differed significantly in the expected directions. Considering the small size of the pilot study, the strength of the results were encouraging. Except for one outlier, the results of all participants were as predicted.

Measures

Mediating Variables

In this study three mediating variables were investigated: self-esteem, locus of control, and self-efficacy. All mediating variable instruments were presented after participants received a short description of the role they would be assuming. These three mediators were chosen since there are good measurement scales that have been widely used and well documented. For all three constructs, pre-existing, validated, and reliable instruments with a Cronbach alpha value of *over* .6 (the value recommended by Nunnally, 1978) were chosen.

Self-Esteem

In a comprehensive review of the employee self-esteem literature, Tharenou (1979:317) used Coopersmith's (1977) definition of self-esteem: "...the evaluation which the individual makes and customarily maintains with regard to the self: it expresses an attitude of approval or disapproval, and indicates the extent to which the individual believes the self to be capable, significant, successful and worthy." Self-esteem can be global (a general evaluation), specific (to a situation or role), and task specific (competence in a particular activity). Since the purpose of this study was an investigation of people in the context of their workplace, a measure of self-esteem in

the context of the organization (i.e., a specific measure of self esteem) was chosen. The measure used was the Pierce et al., (1989) Organization-Based Self-Esteem (OBSE) scale. This scale consists of 10 items and is presented in Appendix 4. The OBSE scale was chosen both for the level of analysis at which it examines self-esteem and for its psychometric properties. The OBSE scale has an internal consistency of .91 and a test-retest reliability of .87. This specific level of self-esteem is appropriate because it is the same level at which the experimental manipulation occurred.

Locus of Control

Locus of control is the causal relationship a person associates between his/her behaviour and an event or outcome. If an individual attributes an outcome to luck, fate, or powerful others, the person is considered to have an external locus of control. However, if the person believes that the outcome was a result of his/her own characteristics/behaviour, they are considered to have an internal locus of control (Rotter, 1966).

The locus of control scale used here was a modified version of the Spheres of Control Scale (Paulhus & Christie, 1981), in its latest version SOC3 (Paulhus & Selst, 1990). This scale assesses three components of perceived control: personal control, interpersonal control, and socio-political control. However, in this study only the first

two components of perceived control were assessed and the items were re-worded so as to assess personal and interpersonal control in an organizational setting. For the personal control sub-scale items were simply re-worded to focus on the fictitious organization. However, the interpersonal control sub-scale was re-worded to focus more generally on organizational settings. This more general focus on organizational settings was thought to be necessary because the social nature of the interpersonal control sub-scale may result in too jarring a contrast with the limited information available to the participants. These minor changes did not have a significant impact on the scale's properties (Paulhus, 1992)⁹. It was assumed that the sociopolitical control scale, unlike the personal and interpersonal control scales, would not change as a result of the manipulation, so as a result, this sub-scale was not included. Typically, the SOC scale is administered with questions from the sub-scales intermixed. Here, the items from the SOC two sub-scales were intermixed with items from the other mediating variable instruments. The SOC scale's items (presented in Appendix 5) are rated on a 7 point scale. The SOC scale has a test-retest correlation of 0.8 at 4 weeks, an alpha reliability of 0.8, and has been shown to measure separate domains of the general construct of perceived control.

⁹ When instrument modification was necessary the following guidelines were adhered to: (1). keeping the items simple, to insure that all participants will understand them equally, and (2). refraining from placing potentially difficult and/or threatening questions first (Rossi et al., 1983: 212,220). Updated Cronbach alpha reliability scores are reported in the "Results" section.

Self -Efficacy

Self-efficacy differs from self-esteem and locus of control. Self-esteem is considered to be a trait reflecting a person's affective self-evaluation. Locus of control is a belief about the general causal relationship between actions and outcomes. Self-efficacy is a judgment about one's capability (Gist et al., 1991); it is the person's expectation about whether they can "successfully execute the behaviour required to produce the outcome" (Bandura, 1977: 192). Key to the mediating role self-efficacy has in the process of empowerment is that it "affects coping and perseverance in the face of obstacles" (Gist et al., 1991 :840).

In this study, scales for generalized self-efficacy (GSE) were used. Generalized self-efficacy is a person's expectation that he/she can perform well across a wide range of situations (Tipton & Worthington, 1984). The self-efficacy scale used here is the Sherer et al. (1982) general self-efficacy scale and is presented in Appendix 6. This GSE scale consists of 17 items rated on 5 point scales, with a Cronbach alpha reliability coefficient of .86. Construct and criterion validities were also shown to be acceptable (Sherer et al., 1982). In one of the validity tests (Sherer & Adams, 1983) a mean of 64.31 and a SD of 8.58 were obtained. These GSE scale items appeared intermixed with the other mediator items in the questionnaire.

Dependent Variables

In this study the dependent variables of interest were work satisfaction as well as eight facets of work performance. The eight work performance variables were measured using an in-basket task's scales. These measures were gathered during the participants' third meeting, in which the participant completed a full in-basket. The results of their performance on the in-basket constituted the dependent measures for work performance.

The specific in-basket used here to measure the dependent variables is entitled the "Servcom Corporation," and is produced by Organizational Performance Dimensions. This simulation has a high inter-rater reliability of .93 and a criterion-related validity with supervisory performance ratings of $r = .27^{10}$. In this 90 minute exercise participants assume the role of a new manager, and with the aid of background information on the organization, respond to 23 letters, memos, reports, requests, and problems that have accumulated on their predecessor's desk. (An example is presented in Appendix 7.) Participants need to make decisions, take actions, delegate responsibility, write letters, initiate meetings, assign work, plan, organize, and schedule activities based on the

¹⁰ The validity coefficient, which may seem low at first glance, is at the high end of a range of -.25 to .36 found by Schippmann et al., (1990) in their review of in-basket performance measures. Since, as should be the case with laboratory studies involving simulation (Campbell & Stanley, 1966) the goal of this study is not to provide external generalizability, but rather, to test my model of empowerment, a validity coefficient of .27 is satisfactory.

material in the in-basket. In addition, upon completion of the in-basket, they are requested to fill out a 15-minute participant report form. This in-basket exercise measures a total of eight work performance dimensions from three different areas. Means, standard deviations, and scoring range for each of the eight work performance dimensions can be found in Appendix 12. These dimensions and areas as defined by the in-basket's author (Nowack, 1988) are summarized below:

1) Personal/Interpersonal:

Initiative - The individual takes action and makes decisions without waiting for direction from others.

Sensitivity - The individual takes action and makes decisions that show consideration for the feelings and needs of others.

2) Administrative:

Planning, Organizing, and Scheduling - Effective scheduling of time and activities, as well as establishing a course of action in order to accomplish specific goals.

Delegation - Allocating the necessary authority and resources to subordinates so that they can accomplish a task, assignment, or project.

Administrative Control - Developing procedures to monitor and evaluate the progress of job activities, tasks, and delegated assignments on a regular basis.

3) Decision Making:

Problem analysis - Accurately defining a problem, determining possible causes, analyzing information relevant to the problem, and determining alternative solutions to resolve the problem.

Judgement - Making decisions of high quality and considering alternative courses of action based on available information.

Decisiveness - Ability and willingness to make a decision, render judgements, or take actions when required.

In-baskets were scored using a scoring key developed by Organizational Performance Dimensions. This scoring key provides the raters with a series of over 100 guiding questions that are grouped by the eight dimensions. Once all relevant questions are addressed, the total score for each dimension is tallied. For each question an individual can receive full points, half points, or none at all. For example, one of the questions related to Sensitivity is: "Was an attempt made to respond to the phone call in a prompt, courteous, and sensitive manner?" If the participant responded to this in-basket item by requesting that one of his/her subordinates call the person and politely explain the situation, the participant would receive one point. However, if in their request the participant did not give any guidelines as to how the call should be dealt with, other than that it should be answered immediately, the question would only receive half a mark. If there was no reference to speed or to how the issue should be dealt with no points would be awarded. All the in-baskets were scored by two

judges who were trained for over 40 hours until they achieved an inter-rater reliability of .98 and a mean intra-rater reliability of .94.

The satisfaction variable was measured after participants completed the in-basket in the third session. At the same time that respondents were asked to complete the mediator scale items at the end of the third session, they also completed a short four-item job satisfaction scale. All of these mediator and satisfaction items were presented to the participants within a single questionnaire. The four-item job satisfaction scale has been successfully used previously, and all four items are established facet-free indicators of general job satisfaction (Tymon, 1988:60). This job satisfaction scale has a Cronbach alpha reliability coefficient of .87 and is presented in Appendix 11.

The first three job satisfaction items, taken from Hackman and Oldham (1980), have a 7-point scale response category, anchored by "Agree" (= 1) and "Disagree" (= 7). The fourth item from Quinn and Mangione (1973) asks whether subjects would take the job again, knowing what they now know. This item has five responses: I would definitely take the job again; I would probably take the job again; I am not sure if I would take the job again; I would probably not take the job again; I would definitely not take the job again.

Appendix 2³

Excerpts from First Session In-Baskets

General Software Products, Ltd. Memorandum

To: J. Carter

From: Pat Morgan

Date: June 4

I have just found out that we have some "slack" money in our budget. As a result I can give you \$10,000 for you to allocate at your discretion.

(Empowered)

General Software Products, Ltd. Memorandum

To: J. Carter

From: Pat Morgan

Date: June 4

I have just found out that we have some "slack" money in our budget. As a result, I would like to suggest that you forward some suggestions on how your department could use some additional funds. I can go up to \$10,000.

(Control)

General Software Products, Ltd. Memorandum

To: J. Carter

From: Pat Morgan

Date: June 4

I have some "slack" money in our budget and want you to send some of your people to trade shows and conferences. I will be forwarding their names and the dates they will be away within the next few days.

(Disempowered)

³ First session in-basket items are presented for each group. Items are shown in the following order: empowered, control, and disempowered (Eylon, 1993, p. 154, 155 & 164).

General Software Products, Ltd.
Memorandum

To: J. Carter
PC Software Development

From: P. Morgan
VP Software Development
Date: May 31, 1991

Thanks for your Computer Games Department progress report. Your format was not quite our usual style, however, I like it and am considering recommending that others follow your example. Would you be willing to coach them?

(in pen "keep up the good work!")
(Empowered)

General Software Products, Ltd.
Memorandum

To: J. Carter
PC Software Development

From: P. Morgan
VP Software Development
Date: May 31, 1991

Thanks for your Computer Games Department progress report.

(Control)

General Software Products, Ltd.
Memorandum

To: J. Carter
PC Software Development

From: P. Morgan
VP Software Development
Date: May 31, 1991

Even though your report was not written in the standard format, I read it this time. Your format isn't a bad idea, but around here we prefer working the standard way. So next time, please make sure that you are following standard procedure -- we can not have everybody coming up with changes! From now on, just focus on what you are asked to do.

(Disempowered)

General Software Products, Ltd.
Memorandum

To: J Carter

From: D. Rhodes
Date: June 3

Carter, I just want you to know that you may hear some negative remarks from somebody here. However, I would like you to rest assured that I am completely behind you and have assured them that you are the best person we could have found for this job. I hope that my conversation with them was the end of this subject, but just in case it isn't I want to make sure that you know where I stand.

(Empowered)

General Software Products, Ltd.
Memorandum

To: J. Carter

From: D. Rhodes
Date: June 3

Carter, I just want you to know that you may hear some negative remarks from somebody here. However, I would like you to rest assured that I have already spoken with them.

(Control)

General Software Products, Ltd.
Memorandum

To: J. Carter

From: D. Rhodes
Date: June 3

Carter, I just want you to know that you may hear some negative remarks from somebody here. I would suggest that you make sure they don't have any reason to repeat their comments again.

(Disempowered)