Effects of Attitude Toward Women in Management and Applicant Information on a Male and Female Applicant for a Management Position

1976

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EFFECTS OF ATTITUDE TOWARD WOMEN IN MANAGEMENT AND APPLICANT INFORMATION ON A MALE AND FEMALE APPLICANT FOR A MANAGEMENT POSITION

By
ARLETTE ADA STEINBERGER
B. A., University of South Florida, 1973

THESIS
Submitted in partial fulfillment of the requirements for the Degree of Master of Science in the Graduate Studies Program of Florida Technological University

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1976
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An in-basket exercise was used to investigate the effects of sex-role stereotypes on selection evaluations of applicants for a management position. The independent variables consisted of (a) sex of the applicant (e.g., Janet N. Davis, James N. Davis) (b) the raters attitude toward women in management positions as measured by a questionnaire, and finally (c) the quality of information (e.g., biographical or behavioral). On the basis of information provided, 28 male and female subjects evaluated the applicants performance potential and suitability for a particular management position. The results confirmed the hypothesis that attitude toward women in management creates a discriminatory impact toward women on certain management dimensions when the evaluator is forced to predict behavior based on biographical information. However, when actual behavioral data about job performance is made available, discriminatory effects appear to be eliminated. Implications of these results are discussed.
INTRODUCTION

In recent years, unfair job discrimination has become a topic of considerable concern. While undoubtedly spurred by the early Civil Rights Movement, Americans have come to recognize hiring and promotional biases not only has existed and does exist against blacks, but that it also exists toward other groups such as women, the elderly and the handicapped.

Since 1964, when the Civil Rights Amendment made discrimination based on an individual's race, religion, sex, ethnic affiliation or national origin illegal, the government has attempted to assist the process of social change. This has come about through establishing guidelines for employers to provide equal employment opportunity for groups previously denied these rights, such as blacks and women.

According to the Civil Rights Amendment, employers should only select prospective employees and/or consider employees for promotion on the basis of demonstrated potential for performing the job, rather than based on some preconceived notion that only certain members of society are capable of performing the job. The guidelines developed through the Civil Rights Amendment have prompted employers to begin to eliminate discrimination in hiring and promotional practices. While it is likely that some employers have changed their employment practices out of fear of
potential litigation, some employers have recognized that their company can benefit from the guidelines. That is, if employees are selected according to their demonstrated potential rather than a preconceived idea about a candidate's potential, the employer will be assured that his/her employees will be the best qualified for the position.

Despite the 1964 amendment, "treatment" discrimination against women has persisted. "Treatment" discrimination is defined generally as the unequal distribution of rewards across persons performing the same tasks. (Levetin, Quinn, & Staines, 1972). In order to understand this unequal distribution of rewards, it is necessary to look at two ideologies behind reward distribution for job performance.

Levetin et al (1972) examined achievement and need ideologies. An achievement ideology exists where rewards are based on performance or the quality and/or quantity of work produced on the job. A need ideology is operative when rewards are based on economic need rather than productivity. Discrimination occurs when classes of people are rewarded differentially according to different reward ideologies.

Levetin et al (1972) speculated that men and women were in fact being rewarded differentially. As evidence for this hypothesis they conducted a survey stratifying persons according to demographic and occupational characteristics. They found: (a) the median income for the American working woman was 58% of a comparable man's income and (b) although a large percentage
of American working women probably experience treatment discrimination (94.9% in this sample) only a small percentage perceived differential treatment due to their sex (7.9% in this sample).

These researchers concluded that women are probably being rewarded according to a need ideology while males are probably distributed rewards according to achievement or merit. This is reflected in the fact that women only received 58% of the income males receive even though both do the same kind of work and have the same job demands. (Levetin et al, 1972). In addition, the results of this survey tend to suggest that women themselves tend to ascribe to a need ideology in that they tend not to perceive discriminatory impact.

The preceding results are interesting in that women do not seem to perceive that they are being discriminated against. Goldberg (1968) suggested that women view themselves as inferior and therefore are prejudiced against other women. In a sample of college females, Goldberg (1968) found that female students tended to rate essays lower if they believed the essays were written by a woman than if they believed they were written by a man. However, his study did not make comparisons with male raters. There is some evidence to suggest that females tend to have more stringent criteria for making performance judgments and therefore tend to rate both males and females less favorably than males (Drucker, 1973). But a more stringent criteria for performance evaluations by females does not explain all the
preceding and subsequent findings in the research area of sex discrimination.

It has been shown that both male and female clinical and counseling personnel expect females to display behaviors significantly different than males (Abramowitz & Abramowitz, 1973; Broverman, Broverman, Clarkson, Rosenbrantz & Vogel, 1970). Behavior expected from males tended to correspond more closely to an ideal standard of mental health than behavior expected from females (Broverman et al., 1970). Furthermore, when an equivalent male and female were rated by counselors for psychological distress, the female ratee was rated significantly more distressed than a male ratee (Abramowitz et al., 1973).

Schein (1972) found behavior expected from males to have more significant correlations to a characteristics profile of ideal managers than behavior expected from females. It seems, according to this sample of management personnel, women are apparently not thought to naturally possess characteristics necessary to be a good manager.

Perhaps the sex-related association bias Schein (1972) found is reflected in the evaluation process. Rosen and Jerdee (1973) found male supervisors tended to be rated more favorably across supervisory styles (threatening, rewarding, friendly-dependent, and helping). This tends to suggest that women may be unfairly discriminated against in management in that equivalent behavior between both sexes is rated significantly less favorable for a female than a male.
An interesting finding to emerge from Rosen and Jerdee's (1973) study, although not statistically significant, was that ratings tended to be more favorable toward both sexes when the behavior was congruent with cultural expectations. For example, both male and female supervisors were rated more favorably when they treated opposite sex subordinates in a friendly-dependent manner than if they treated their own sex subordinates in a friendly-dependent manner. Furthermore, Rosen and Jerdee (1973) note that it is socially acceptable to treat the opposite sex in a friendly-dependent manner.

Considering Rosen and Jerdee's (1973) results, it seems possible that culturally learned, sex-related expectations bias the evaluator's perception of a woman's performance in various occupations. Mischel (1974) suggests that biases may actually be a judgment of an individual's probability of success in a particular occupation. She specifically cites situations where women attempt to compete for traditionally male dominated occupations (i.e. law and city planning). The evaluators judgment may reflect their expectation for a woman's behavior and how that behavior pattern fits with the job requirements. As was found in Schein's (1972) study, the evaluators in Mischel's (1974) study may have believed that women do not possess the behaviors necessary to compete and be successful in traditional male occupations. Perhaps these stereotypic expectations merely mirror the expectation that women exhibiting traditionally female behaviors will not be able to succeed in occupations which require behaviors traditionally associated with males.
Several experiments and surveys lend support to a success bias as described above. When equivalent male and female ratees were considered for counseling positions, academic teaching positions or as managers, male ratees tended to be favored in hiring and promoting over female ratees (Fidell, 1970; Jones, 1970; Rosen & Jerdee, 1974a, 1974b). Additionally, male ratees were accepted significantly more often into undergraduate programs than equivalent females even though both the male's and female's credentials were below average (Clifford & Walster, 1972).

None of the preceding researchers explain their results precisely in terms of a success probability as Mischell (1974), but an interesting generalization emerges from all these studies. It appears that in spite of equivalent qualifications to female ratees, the male ratees are consistently preferred over female ratees. In applying a success probability theory, these results suggest that males may be perceived as being better risks than females for being successful in an organization or academic endeavors.

Experimental data is frequently criticized due to its lack of representation of real life or non-laboratory situations. However, Day and Stogdill (1972) observed that male supervisors advanced more rapidly in a particular organization than female supervisors with equal abilities as well as equal training. Furthermore, similar trends appear in statistical data from industrial surveys (Schein, 1973). Although the females in
these surveys were not necessarily equated with males for competency and qualification, Schein (1973) notes that even though 38% of the work force is female, there is a distinctively smaller percentage of women in middle management and executive positions. She cites one particular survey of industrial organization (Women in the Work Force, 1970) which revealed 5% or fewer women in middle management positions or above in 87% of the companies surveyed.

Affirmative Action programs have been particularly instrumental in guaranteeing women equal opportunity for advancing to higher level employment than previously. But Affirmative Action programs merely provide statistical goals on how many women should occupy particular positions based on female representation in the work force. These programs also pinpoint the steps in the selection and promotional practice which tend to have discriminatory effects on women. However, the exact manner of overcoming the discriminatory effects are not analyzed in the Affirmative Action programs. It would be fruitful to investigate situations where "treatment" discrimination is operative contrasted to where it does not seem to occur. Exploring discriminatory and non-discriminatory factors could assist in implementing selection and promotional systems which decrease or eliminate sex discrimination.

Women do not appear to be discriminated against in all situations. The experimental literature provides evidence for situations where sex biasing does not appear to exist or if
discrimination does exist it arises in a very different form. A study by Pheterson, Kiesler and Goldberg (1971) found competent males to be significantly favored over competent females however, accomplished females (indicated by receiving first prize in an art contest) were not rated significantly different than accomplished males. Clifford and Walster (1972) found a similar trend in the acceptance rate of male and female applicants into undergraduate university programs. Females with below average qualifications were accepted significantly less often than equivalent males. As the quality of the applicant's credentials increased to average and above average quality the acceptance rate between the sexes approximated each other.

Increased information about female dentists' professional ability was shown to significantly influence attitudes of female consumers (Ripley, 1971). Female consumers were involved in a decision making situation about dentists. Initially they received equal information about a male and female dentist. They were asked to note from which dentist they would seek professional services. Then additional information was provided about the female dentist. The information provided included one of several kinds: (a) more information about professional qualification; (b) information noting the quality of her professional ability; (c) greater information about her personal life, or; (d) information about the quality of her personal life. A second rating was made by the consumers after reading the new information
about the dentists. Ripley (1971) found statistically significant differences in favor of the woman dentist than male dentists when greater quantity or higher quality professional information was provided. Interpreting Ripley's (1971) findings in terms of the Mischell's (1974) success bias, it seems greater quantity or higher quality professional information provided the rater with sufficient information to believe that the female dentist had the potential for successfully performing the job.

An unpublished master's thesis by Drucker (1973) found another interesting result when both a male and female were rated on leadership potential in a simulation exercise. A male and female actor separately roleplayed the same simulated leadership exercise. Half of the subjects rated the male, the other half rated the female. Subjects were instructed how to score the leadership behavior. No significant differences were found in rating of leadership behavior between the male and female model. In addition, subjects were asked to rate managerial potential as demonstrated in an in-basket simulation exercise. Half of the subjects believed the in-basket was done by a female, the other half believed it was completed by a male. Again they were instructed how to score the in-basket and again no differences were found between the male and female ratee. Drucker's (1973) results seem to suggest sex biasing does not occur when rating actual behavior related to specific job positions.

In a replication of Goldberg's (1968) study done with a sample of Israeli high school students, differential treatment was not found between the equivalent males and females in
in evaluating writing ability (Mischell, 1974). Preliminary investigation showed that Israeli high school students have similar sex stereotypes as those found in the United States. In spite of these sex stereotypes, male and female ratees did not significantly differ on performance evaluations of writing abilities. Mischell (1974) speculates, in contrast to Goldberg's (1968) study where he found male ratees significantly preferred over female ratees, the lack of biasing may be that the Israeli people may experience working women differently than Americans. For example, Israeli women occupy a large number of occupations and at least one has received international recognition for her effectiveness in performing her job. It is not unusual for an Israeli woman to be performing a job that most Americans believe only men could perform. At this point it is important to reiterate that Mischell (1974) explains sex biasing or sex discrimination in terms of perceived probability for success. If Israeli students in fact knew of competent women in a number of occupations typically occupied by men, this would eliminate the expectation that women would generally fail in these occupations. These students would probably believe that women would be quite capable of performing the job and thus would be and was reflected in the lack of success bias in the ratings.

It seems that sex biasing tends to decrease or be eliminated in situations where evidence is presented contrary to expected behavior. Initially stereotypes probably tend to determine what behavior is expected from a person associated with a particular
group. Zilborg (1949) implies that the Americans stereotype for females are androcentric. That is, females are viewed as having inferior capabilities to deal with most situations relative to men. When minimal information is known or presented or presented about an individuals performance, stereotypic expectations may tend to bias the evaluators judgment. Thus, considering the androcentric bias, it is not surprising that women tend to be rated less favorably than male counterparts by American samples. However, it seems when information is presented or known which contradicts the expectation that women are inferior, women tend to be rated equivalent to comparable males. For example, this later event occurs in situations where the evaluator seems to believe or has evidence that women do have the ability to perform in particular situations.

Two different outcomes of the evaluation processes of females could possibly be explained by studies of contrast and assimilation effects in the judgment process. Holmes and Berkowitz (1961) suggest contrast effects are a consequence of a psychological distance relative to some standard or anchor. That is, the observation or an event, behavior, objects, etc. is discrepant with what the observer expected to observe. Operationally, observers tend to over or underestimate their judgment of the actual observation. Perhaps this phenomena was operative in Pheterson et al (1971) and Clifford and Walster (1972). Both of these studies found that females demonstrating exceptionally effective behavior tended to receive more favorable ratings.
than a comparable male even though the results were not statistically significant.

An assimilation process seems to occur when evaluators perceive the stimulus object as more similar to their internal standard than the stimulus object may actually be (Holmes & Berkowitz, 1961).

The internal standard or anchor from which comparisons are made in both the contrast and assimilation processes seem to be determined by the evaluators previous experience (Tajfel, 1957; Wexley, Yukl, Kovacs & Sanders, 1972). This previous experience may be relatively recent or could have been due to continuous experiences of a similar nature in the evaluators past. Pinpointing the actual time when the internal standard became part of the evaluators psychological make-up is relatively unimportant. What is important is that the evaluator learned that certain events, behaviors, rewards etc. would arise due to particular characteristics of the stimulus object. From this the following can be inferred; assimilation or contrast effects become operative when an observer must evaluate a stimulus object. If the defining characteristics of the stimulus object are perceived equivalent to a similar stimulus object, the observer will predict behaviors, events, rewards, etc. that he/she has previously experienced with the stimulus object. If a discrepancy in the defining characteristics is of sufficient magnitude, the evaluator will under or over predict behaviors, events, rewards etc. from his/her previous experience. The direction of the prediction will depend
upon the observers positive or negative perception of the
discrepant characteristics (Holmes & Berkowitz, 1961; Wexley

In expanding the theories behind contrast and assimilation
processes to include the research on sex discrimination, certain
possibilities arise to explain sex discrimination. It seems
possible that when a rater is informed of the ratee's sex, he/she
activates standards associated with members of that sex displayed
in similar situations. This would especially occur when raters
are provided with limited information about a person's behavior.
That is, the rater would predict behavior based on his/her
previous experience with members of that sex in similar situations.
As the data seems to support, traditionally, the standard for
females in working situations tends to be lower than males (Fidell,
1970; Goldberg, 1968; Mischel 1974; Pheterson et al, 1971). Perhaps
the raters in these studies had experienced females that were
not capable of performing their jobs adequately, or the manifest
behaviors were mutually exclusive of acceptable performances in
a particular job setting. Perhaps this previous experience
caused the raters to predict the female's behavior would be
inadequate even though objective evaluation of her credentials
would indicate she was acceptable. If this process did in fact
exist, it could be said that these raters assimilated the observed
information into their learned standard of inferior performance
for the specific situation, thus evaluating females less favorably
than males. This interpretation seems feasible considering the
wealth of data indicating the standard for females is generally

Several previously noted research studies found unfair discriminatory effects against females did not occur in certain situations (Ripley, 1971). Furthermore, some studies found a tendency for reverse discrimination (Clifford & Walster, 1972; Pheterson et al, 1971). Ripley (1971) found discriminatory effects decrease between a male and female dentist when additional quality and quantity information consisted of the professional ability. In addition, Pheterson et al (1971) and Clifford and Walster (1972) found that exceptionally competent females tended to be preferred over comparable males, however, their results were not statistically significant. It seems possible that the additional information in these studies contrasted the expected behavior for the female ratees. The findings in Clifford and Walster's (1972) and Pheterson et al (1971) studies provide strong support for a theory conforming to contrast effects specifically the performance information presented for females in these studies may have created a psychological discrepancy with expected behavior which caused the raters to evaluate the female higher than their general standard for outstanding performance.

A controlled study appears relevant at this time to determine whether contrast and assimilation effects interact with learned prejudice against women in working situations. It seems especially
important to ascertain what the specific qualities about a 
female's performance and capabilities will afford females at 
least equivalent evaluation to male counterparts. Since one 
of the major areas of discrimination arises in traditionally 
male dominated occupations, this study will address itself 
to evaluations in employment settings traditionally occupied 
by males.

This study will attempt to study the components which 
 alleviate discriminatory impact for women with average capabil-
 ities and qualifications applying for managerial positions. 
Two reasons for studying this qualification range are as follows: 
(a) first of all, various studies have already noted that 
exceptionally "talented" women tend to be given higher ratings 
of favorability or acceptances than equivalent males by raters 
(Pheterson et al, 1971; Clifford & Walster, 1972). However, 
the reason why these results have emerged have been given 
little attention. An unexamined variable may have created 
a psychological contrast to sex stereotypes. If a contrast 
effect is in fact operative, knowing the nature of the contrast 
variable would be helpful in changing the traditional expectations 
for females.

Secondly, there generally seems to be a greater number of 
persons with average qualifications in the work force, including 
women. Experience tells us that there seems to be a normal dis-
tribution of capabilities in most any population. Only a small 
percentage of people have exceptionally outstanding or exceptionally
inferior capabilities. This would also apply to women. Only a small percentage would be outstanding, leaving the majority of women in the work force being of average potential for a particular position. Being that the majority of women applying for jobs would be average, this would be the major capability range employers would encounter. Thus it would make sense to find methods of elimination discrimination for the majority of female job applicants.

In assessing discriminatory impact against females with average qualifications, several controls must be considered. First of all, a male counterpart will be used as a control. In using an equivalent male, it will be possible to ascertain several aspects of discrimination. It will be possible to determine:

(a) When differential standards are operative for males and females. That is, in what kind of situation does discrimination occur.

(b) The direction these differential standards seem to guide the raters. That is, do the differential standards cause the male or female to be rated more favorably or less favorably than each other?

A second consideration is the raters initial attitude toward females. Previously, contrast and assimilation effects theory were used to describe why quality and quantity of information could be instrumental in changing the effects of learned expectations for female behavior. However, Wexley et al,
(1972) found contrast effects have greater influence on the ratings of applicants with average suitability, especially when the subjects' initial standard was either initially high or initially low. These researchers found stimulus persons of average suitability were rated significantly lower if they were viewed subsequent to a stimulus persons with outstanding credentials than if an average applicant was evaluated subsequent to stimulus persons with low suitability. Although Wexley et al's (1972) research manipulated the subjects standard immediately prior to judging the average applicant, if this phenomenon becomes operative in this study, it could camouflage the results. For example, when limited information is presented to the rater in terms of the ratees suitability for a management position the rater will assimilate the ratee's average qualifications into his/her own expectations. For raters with low expectations for females, he/she will assimilate her qualifications into his/her own below average expectations and rate the female below average. On the other hand, a rater with high expectations would assimilate the average qualifications to his/her high standard and rate the ratee above average.

Since this experiment is attempting to uncover the information quality which eliminates or decreases discrimination, a second condition would be introduced which indicates the female applicant is capable of performing in a management position and the additional information creates a psychological discrepancy from the subjects initial standard. According to
Wexley's et al's (1972) findings, it would be expected that persons with initially high expectations would tend to rate the female below average, while the rater with initially low expectations would rate the female above average. In the statistical analysis of these combined raters, although both experienced different psychological processes, the results would probably indicate that the information manipulation had no effect. Therefore, it seems important to estimate the raters initial expectations toward females in management situations.

The immediately preceding argument for measuring attitudes toward females alluded to another variable of interest in this study. That is a manipulation of the information presented to the raters. Two levels of information will be used. One level of information will include basic biographical information about the stimulus person. A biographical resume will provide the rater with basic information about the ratee's schooling, extra-curricular activities and job experience. However, none of the information presented in the resume will be directly related to a management position. It will attempt to present the applicants' qualifications as average. Since the resume will merely present general qualifications, it is speculated that the raters will probably predict behavior based on their previous experiences and stereotypic perceptions of males and females.

The second information condition will be behavioral
descriptions of performance directly applicable to management positions. Several studies found information that indicated a female who was an outstanding performer tended to receive ratings that preferred her over comparable males (Clifford & Walster, 1972; Pheterson et al, 1971). However, these studies did not necessarily use behavioral descriptions. Drucker (1973) found when raters were asked to observe and evaluate leadership behavior of a male and a female, both sexes were rated approximately the same. Corresponding to all three preceding studies, it seems feasible that both behavior and the indication that a female has the ability to perform adequately in job functions serve as a contrast to expected behavior for certain raters. This study will attempt to verify whether behavioral information creates a discrepancy from expected behavior.

Conceptually, it is speculated that behavioral information serves as a contrast to initial expectations and therefore has the effect of changing ratings due to culturally defined standards associated with females. The direction of the change will depend on the raters initial expectation and their perception that the additional information indicated the applicant could or could not perform the job.

Experimentally, it should be found that a significant interaction should occur between the sex of the ratee, attitude toward females in management situations and information conditions. When biographical information is rated, providing little job
related information, the raters should assimilate this information into their internal standard (Homes and Berkowitz, 1961; Wexley, Yukl, Kovacs & Sanders, 1972). Although no measure of attitudes toward men in management will be taken, it is assumed because management is a traditionally male dominated occupation, males will be favored in the field. Consequently, the statistical analysis should show no significant differences between male ratees at both attitude conditions toward females when ratings are based on biographical data. In addition, the female ratee should be rated significantly higher by the favorable attitude condition than the unfavorable condition, but no difference should be found for the favorable condition evaluating a female than the male ratee's (both attitude conditions) at the biographical condition.

At the behavioral condition, additional information will be presented to the raters. This behavioral information will describe actual performance in management situations. It is speculated that this kind of information will cause a large psychological discrepancy or contrast for certain raters, especially for those who do not expect competent behavior from females in management situations. Consequently, ratings of the ratee should significantly change, with the direction being dependent upon the positive or negative perception of the additional information. For example, if the additional information indicates the ratee will be able to perform the job adequately, the raters will tend to increase the favor-
ability of their ratings from his/her first rating. However, if the additional information suggests the ratee is deficient in some area necessary to perform adequately in the job, the rater will probably decrease the favorability of his/her ratings from his/her first rating.

An additional statement must be reiterated in reference to contrast effects. Contrast effects seem to be dependent upon the magnitude of the psychological discrepancy (Holmes & Berkowitz, 1961). Persons with favorable attitudes toward males and females in management situations already expect relevant managerial behaviors to be demonstrated. Although the ratings might tend to increase or decrease, the additional information probably won't be sufficient to create a contrast effect. On the other hand, persons with unfavorable expectations for females in management probably expect few if any relevant managerial behaviors. As a consequence, the female ratee's ratings by a person with unfavorable attitudes toward females should increase significantly due to a psychological discrepancy between expected and observed behavior by the female.

Experimentally, male ratees evaluated by both attitude conditions toward females and the favorable attitude condition rating a female ratee should not significantly differ between each at the behavioral condition, nor between their ratings on the biographical information. Also, the unfavorable attitude condition toward females should rate the female ratee significantly higher on the behavioral condition than the biographical condition, and
and slightly higher than all other sex X attitude conditions on the behavioral condition.

The following main effects and two way interactions should emerge due to the previously described three way interaction.

1) The male ratee should be rated significantly higher than the female ratee summed across attitude and information conditions.

2) The high attitude condition should not be rated significantly different than the low attitude condition when summed across sex of applicant and information conditions.

3) Behavioral information should show significantly higher ratings than the biographical condition when ratings are summed across attitude conditions and sex of applicant.

The preceding main effects would account for the significantly lower ratings of the female ratee relative to other sex X attitude conditions by subjects with unfavorable attitudes toward females at the biographical condition and slightly higher ratings at the behavioral conditions. Furthermore, the following two way interactions would also account for the differential ratings by subjects with unfavorable attitudes toward women in management.

1) The male ratee should show significantly higher ratings than the female at the biographical condition, but show no differences between the sexes at the behavioral condition when summed across attitude conditions.

2) No differences should be found between the male and
female ratee in either attitude condition when summed across information conditions.

3) Finally, when summed across sex of applicant, the favorable attitude condition should be rated significantly higher than the unfavorable condition on ratings of biographical information. However, no differences should emerge between the attitude conditions, when summed across sex of applicant, for ratings of behavioral information.
METHOD

Subjects

A pool of approximately 250 male and female volunteers were drawn from undergraduate introductory psychology classes at Florida Technological University and Valencia Junior College and administered the Woman as Managers Scale (Peters, 1974). Data was retained for statistical evaluation from 13 females and 15 male subjects. (The high attrition rate will become apparent). Use of data in the statistical analysis for a particular subject was determined by meeting the following criteria:

1) The subject fell in the above or below the upper and lower 30th percentiles on the attitude questionnaire.
2) The subject perceived the sex of the applicant in their experimental materials.
3) The subject completed the rating forms following the presentation of both biographical and behavioral information in their experimental materials.

In order to have equal number of cases in each cell, any additional data in any cell was randomly discarded. The cell with the least number of cases set the limit on the number of subjects per cell that would be analyzed.

Experimental Design

The experimental procedure consisted of a 2 x 2 x 2 design
with a repeated measure on the third factor. The sex of the applicant and the subject's attitude toward women as managers were independent variables. Type of information served as a repeated measure factor. A pool of subjects was selected for the attitude factor via the Women as Managers Scale (WAMS) by utilizing persons falling above and below the top and bottom 30th percentiles on this scale. Half the subjects were randomly assigned experimental materials indicating a male applicant was applying for a managerial position. The other half of the subjects received identical experimental materials except a female name was used. All subjects participated in both information condition receiving both biographical data and behavioral descriptions about the applicant.

Procedure

The experiment provided "average" biographical data (exclusive of sex) and behavioral descriptions of management characteristics. The biographical information included educational attainment, grade point average, class standing, organization affiliation, interests and previous work experience. The experimenter developed this resume with the intent to show that the applicant, although a college graduate, was only an average student by having a B- grade point average, average involvement in clubs and organizations and had progressed in employment situations at a moderate rate.

The behavioral descriptions described the applicants' performance in a simulated managerial position. These descriptions
are usually derived from an assessment centers technique which identify and evaluate a candidates ability for a particular position (Jaffee, 1971). Since this study was interested in evaluating preference for a firstline management position, the behavioral descriptions included characteristics generally relevant for this level of management (i.e. leadership ability, decisiveness, interpersonal skills, decision-making ability, organizing-planning ability and an overall assessment of their potential as a first line manager). Again, the experimenter wrote the materials. The behavioral descriptions were written to indicate average ability by including such statements as "... the candidates strong points equalled his/her weak points."

The experimental materials were camouflaged in an in-basket exercise as memos to the operating manager from the store manager. The in-basket exercise is a management assessment technique generally used in conjunction with other techniques to assess managerial potential. However, the use of the in-basket in this study seemed to be the only presentation method which would camoflage the experiment's demand characteristics, which, if detected, could possibly contaminate the results.

In the experimental setting, initially subjects were told the in-basket exercise was a pilot study for determining how individuals make management decisions. The subjects were further informed that eventually the findings of this study would be used in developing training programs for managers. Subjects were requested to start at the beginning of the exercise and work
through the available materials without going back to change any response they had previously made. The former instructions attempted to further camouflage the intent of the study while the later directions were intended to control for the order information conditions were rated thus preventing the contamination of biographical ratings by the subjects' knowledge of the ratees' actual performance.

The introductory instructions of the in-basket told subjects to assume the role of an operating manager in a fictional department store and respond to the materials as an operating manager would. Ordinarily, the in-basket instructions provide managerial candidates with background on the organization, thus providing a frame of reference for decision-making. In this experimental situation, the instructions provided background and in addition, it also provided the experimenter with the opportunity to define the operating manager positions. Defining this position was important because at a later point in the in-basket, the subjects would be asked to evaluate an applicant's suitability specifically for that position.

The experimental materials were presented in the form of memos from the store manager. It stated that a new branch store was to open in a neighboring city. All positions had been filled except the position of operating manager. The personnel manager, to date, had only received one application for the position. The store and personnel manager were requesting assistance in evaluating the applicant's suitability. Since the addressee
was familiar with the job, the addressee was requested to evaluate the applicant on an attached evaluation form. In addition, the memo stated the addressee's evaluation would determine whether a personal interview would be offered.

The biographical condition was poaced toward the beginning of the in-basket. A resume, as described above, constituted the biographical condition. A rating form was also attached. This form consisted of a six point Likert type scale with verbal descriptions ranging from marginal to outstanding to be used in rating the applicant on several dimensions. Operational definitions were provided for dimensions deemed relevant to managerial effectiveness. These dimensions included decisiveness, decision-making ability, coordinating ability, leadership ability, interpersonal skills and overall potential as an operating manager. The same six-point Likert type scale ranging from marginal to outstanding was to be used by the subject to evaluate the applicant for each managerial dimension. Finally, a yes or no response was requested to the question: "Would you hire this person for this position?"

The behavioral information was presented four memos subsequent to both the resume and rating form. A memo from the store manager informed the addressee that additional information had been provided on the applicant and a second rating was requested on an identical but separate form. The additional information included summary evaluations from an assessment center. A brief description of an assessment center, method of assessment and
purpose of assessment centers were provided in the memo. (See appendix A for in-basket and experimental materials. Identical materials were presented for the female applicant but Janet N. Davis was substituted for James N. Davis. The final step in the experimental process was the use of a short questionnaire subsequent to the in-basket. Several filler questions were asked in an attempt to camouflage the relevant question. Specifically, subjects were asked the sex of the applicant for the operating managers position. This procedure was deemed necessary to ascertain whether the subjects' were aware of the applicants' sex (Appendix B).

One week prior to participation in the experiment, all members of the subject pool were requested to complete an attitude survey designed to tap attitudes toward women in management (Women as Managers Scale). The survey was presented as an attempt to develop normative data for the Central Florida area (Appendix C). In actuality, scores on this measure served to identify subjects with favorable and unfavorable attitudes toward female managers.

The attitude measure toward women in management (WAMS) included two content areas: (a) general descriptive traits/behaviors of managers (e.g. leadership and motivational behaviors, and traits such as assertiveness and competitiveness) and (b) female specific stereotypes thought to represent barriers to the successful integration of women into managerial positions (e.g. problems associated with pregnancy and child rearing).
A principle component analysis in the development of this measure with varimax rotation yielded three interpretable factors which were used to develop the final form were:

1. General acceptance of females as managers. Persons who scored low on this factor perceived women as less capable than men in terms of behaving responsibly, objectively and competitively; less capable than men in learning managerial skills, gave women low preference for participating in management programs and finally, view women in management as being out of role. High scorers indicated a male-female equality in management behaviors.

2. Feminine barriers. Persons who scored low on this factor tended to attribute female ineffectiveness in management situations to female biological role (menstruation and pregnancy). High scorers did not perceive biological difference as a particular problem for women in management.

3. Manager descriptive traits. These were personality traits ascribed to managers. Persons who scored low tended to view women as nonassertive, nonambitious, noncompetitive, all of which are viewed as required of successful managers. On the other hand, high scorers viewed women as capable on all the relevant managerial personality traits.

It was the expectation, in this study, that this survey (WAMS) would identify persons with unfavorable and favorable
stereotypic images of women in management. Persons scoring in the above and below the top and bottom 30th percentiles of the WAMS were tentatively identified as having favorable and unfavorable expectations toward women in management respectively.

All subjects were debriefed about the experiment's purpose and thesis after sufficient data was obtained for statistical evaluation.
RESULTS

A three way analysis of variance was performed on the factors sex of applicant, attitude toward women managers, and quality of information. A repeated measure was used on the quality of information factor. Data from 28 subjects was utilized in the statistical analysis. The independent and crossed factors (sex of applicant X attitude toward women) had seven subjects in each cell. Seven analyses were performed, one on each management dimension (i.e. decisiveness, leadership ability, decision-making ability, coordinating ability, interpersonal skills and overall potential) plus an analysis on a summed total of all the management dimensions. In addition a Chi Square statistic was used to evaluate preference in hiring by any sex of applicant and attitude combination (i.e. favorable attitude-female ratee, unfavorable attitude-female ratee, favorable attitude-male ratee, and unfavorable attitude-male ratee).

Effect of Sex of Applicant X Attitude Toward Women in Management Quality of Information.

The major hypothesis speculated quality of information would effect a change in rating for a female for a management position. Comparisons were to be made against an equivalent male applicant. Furthermore, initial attitude toward women in management positions
was measured. No changes were expected for the male applicant across attitude or information conditions. Ratings for the female applicant would be contingent upon initial attitude toward women in managerial positions plus the quality of information about the female applicant.

Subjects with favorable attitudes toward women in management were not expected to differ between their ratings of a female with ratings of a male applicant in both attitude conditions toward women across both information conditions. Subjects with highly unfavorable attitudes were expected to rate a female applicant significantly lower than the male applicant conditions and the female ratee evaluated by persons with highly favorable attitudes toward women when ratings were based on biographical information.

When rating behavioral information, the unfavorable attitude condition rating the female applicant should have found no significant differences between the other independent factor conditions even though the female applicant condition rated by subjects with unfavorable attitudes may tend to be rated slightly higher.

These hypothesized findings require an examination of three way interaction. Only one significant three way interaction was found in the seven analyses of variance. This interaction resulted with respect to the dimension of interpersonal skills ($F = 4.36; \, df = 1,24; \, p < .05$).
**Interpersonal Skills.** These results of this statistical test found several points both conforming to and conflicting with the major hypothesis. No statistical differences were found between attitude conditions for the male applicant at either biographical or behavioral conditions. The highly favorable/condition did not significantly differ between information conditions for the male applicant. Significant differences were found for the female applicant. Significant differences were found for the female applicant between attitude conditions at the biographical condition \((F = 6.25; \text{df} = 1,24; p < .01)\). (The exact nature of these differences will be explained later in the text.) Finally, no significant differences appeared for the female applicant when both attitude conditions rated behavioral information. These preceding results correspond to the predicted effects.

Evidence contrary to the predicted results occurred in evaluations of both the male and female applicant. Ratings of the male applicant showed significant differences between information conditions for subjects with highly unfavorable attitudes toward females \((F = 4.34; \text{df} = 1,24; p < .05)\). Behavioral ratings significantly increase over biographical ratings for the male applicant \((F = 4.35; \text{df} = 1,24; p < .05)\). Similar trend was found for the female applicant rated by subjects with highly favorable attitudes toward females in that, ratings on biographical information was rated significantly lower than the behavioral information \((F = 14.09; \text{df} = 1,24; p < .05)\).

Figure 1 below provides a schematic representation of all
the mean attitude X sex of applicant conditions plotted across information conditions from Table 1. The contrary findings are difficult to explain. No differences were predicted for the applicant. In addition, the highly unfavorable, not favorable subjects were predicted to rate the female applicant significantly lower at the biographical condition.

FIGURE 1. Interpersonal Skills Dimension of Mean Ratings of Sex of Applicant by Attitude Condition Toward Women in Management Across Information Conditions.

To summarize, the following results were found with respect to the interpersonal skills three way interaction:

1) No significant differences between attitude X sex of applicant conditions were found at the behavioral condition as hypothesized.
TABLE 1
Mean Evaluations and Standard Deviations of Interpersonal Skills Dimension by Ratee Information and Attitude Condition

<table>
<thead>
<tr>
<th>Ratee</th>
<th>Biographical</th>
<th>Behavioral</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Favorable</td>
<td>Unfavorable</td>
</tr>
<tr>
<td>Male</td>
<td>4.28</td>
<td>4.00</td>
</tr>
<tr>
<td>Female</td>
<td>3.71</td>
<td>4.57</td>
</tr>
</tbody>
</table>
2) The highly favorable and unfavorable attitude conditions significantly differed for the female applicant at the biographical conditions with the favorable condition rated significantly lower than the unfavorable condition. These findings were in contradiction to the hypothesis.

3) Ratings for the female applicant by subjects with unfavorable attitudes did not significantly differ from the male rated by both attitude conditions when biographical information was evaluated. These results contradict the predicted effects.

4) Ratings based on behavioral information significantly increased over the biographical condition for subjects with highly unfavorable attitudes rating a male applicant and for the subjects with highly favorable attitudes rating a female applicant. These results were not predicted by the major hypothesis.

Although this study was primarily concerned with examining the interaction between sex of applicant, attitude toward women in management and quality of information, a further examination of the statistical analysis could provide some interesting results for the discussion section of this study. Therefore, the results of the statistical analysis for two way interactions and main effects will be presented.

**Effect of Sex of Applicant X Information**

A significant two way interaction was expected to emerge in
this factor combination according to the major hypothesis. The female applicant was expected to be rated significantly lower than the male applicant on biographical ratings. However, no significant differences were expected between the male and female applicant on the behavioral ratings. Again, only one significant interaction was found in the seven analysis of variance. This emerged in the analysis of the leadership dimension \((F = 10.73; \text{df} = 1,24; p < .01)\).

**Leadership.** Supportive evidence for the conceptual hypothesis was found in two areas of the leadership analysis. No significant differences were found for the male applicant between information conditions. In addition, the male and female applicant did not significantly differ at the behavioral condition. Finally, a significant increase was expected for the female applicant in the behavioral rating over the biographical rating. This effect did emerge \((F = 15.24; \text{df} = 1,24; p < .01)\).

In reference to additional evidence needed to support the major thesis, conflicting results were found. The male and female were expected to significantly differ on the biographical ratings. In fact, no significant differences were found between the male and female applicant at the biographical condition.

To summarize the evidence with respect to the leadership dimension, considering the lack of statistical significance between the male and female applicant at the biographical condition, definite support of the major hypothesis cannot be stated.
TABLE 2

Mean evaluations and standard deviations of the Leadership Dimension summed across attitude conditions by information condition and sex of ratee.

<table>
<thead>
<tr>
<th>Ratee</th>
<th>Biographical</th>
<th>Behavioral</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>$\bar{X}$</td>
<td>$s$</td>
</tr>
<tr>
<td>Male</td>
<td>3.92</td>
<td>1.14</td>
</tr>
<tr>
<td>Female</td>
<td>3.50</td>
<td>1.09</td>
</tr>
</tbody>
</table>

Effects of Attitude Toward Women X Information

According to the major thesis, a significant two way interaction was expected for this factor combination. Subjects with favorable attitudes toward women should have shown significantly higher ratings than the unfavorable group at the biographical condition. Neither attitude condition was expected to differ from each other when rating behavioral information. No effects of this nature were supported by the analysis of variance.

Effects of Sex of Applicant X Attitude Condition

Considering subjects with unfavorable attitudes were predicted to rate the female applicant significantly lower at the biographical condition and slightly higher at the behavioral condition than the other three attitude X sex of applicant conditions, when the data is summed across information, no significant interaction should emerge for sex of applicant X attitude condition. The statistical analysis of the management dimensions endorsed the expected effects in that no significant
two way interactions for this factor combination were found. An additional statistical test was utilized to determine if a preference in hiring occurred due to the subjects attitude toward women in management and the sex of the applicant. A Chi square statistic was used to test if any preference occurred. The results of this test found no significant preference for a male or female applicant in either information or attitude condition.

**Effect of Sex of Applicant**

The male applicant was expected to be rated more favorably than the female applicant when scores were summed across information conditions and attitude conditions. These effects were not supported by any of the analyses of variance.

**Effects of Attitude**

The hypothesis of this study did not expect significant differences between attitude conditions when summed across the applicants' sex. As expected, the statistical analysis did not show any significant differences between attitude conditions when scores were summed across information conditions and applicants' sex.

**Effects of Information**

Behavioral ratings were expected to increase significantly over the biographical condition. The actual results for significant findings are provided in the following table with respect to each management dimension found with significant results.
TABLE 3

Mean Competence Ratings, Standard Deviation
and F Value of Significance for the Biographical and
Behavioral Conditions by Management Dimensions.

<table>
<thead>
<tr>
<th>Dimension</th>
<th>Biographical</th>
<th>Behavioral</th>
<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>X</td>
<td>s</td>
<td>X</td>
</tr>
<tr>
<td>Interpersonal</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Skills</td>
<td>4.14</td>
<td>1.09</td>
<td>4.78</td>
</tr>
<tr>
<td>Leadership</td>
<td>3.71</td>
<td>1.11</td>
<td>4.39</td>
</tr>
<tr>
<td>Decisiveness</td>
<td>3.89</td>
<td>1.29</td>
<td>3.23</td>
</tr>
<tr>
<td>Decision-making</td>
<td>3.69</td>
<td>1.37</td>
<td>3.00</td>
</tr>
<tr>
<td>Overall</td>
<td>4.21</td>
<td>1.17</td>
<td>3.87</td>
</tr>
</tbody>
</table>

The preceding table only displays those dimensions that showed significant differences between the information conditions. However, as can be seen, interpersonal skills and leadership ability significantly increased across information conditions. These findings conform to the expected effects. On the other hand, decisiveness, decision-making and overall ratings significantly decreased across the successive information conditions. These later findings appear to contradict the expected increase across the information conditions.

Figure 2 provides a visual display of the mean competence ratings by sex of applicant and information conditions summed across attitude across the management dimensions cited in Table 3. This figure provides data on the individual contribution of both sex applicants summed across attitude conditions.
Mean Competence Rating by Sex of Applicant and Information Condition Summed Across Attitude Conditions Across Five Management Dimensions

- Female Applicant Biographical Condition
+ Female Applicant Behavioral Condition
- Male Applicant Biographical Condition
* Male Applicant Behavioral Condition
DISCUSSION

Several interesting findings to be discussed later in this section emerged in this study with respect to attitudes toward women in management, female applicants, and quality of job related information. First of all, a differential evaluation process was found for one of the requisite management dimensions in ratings of identical female applicants based on biographical information. Significant differences occurred on ratings of interpersonal skills with the differences apparently dependent upon initial attitude toward women in management. Subjects with favorable attitudes toward women in management (as defined by scoring above the upper 30th percentile of the WAMS) rated the female applicant significantly lower than subjects scoring below the lower 30th percentile of the WAMS (unfavorable attitude condition).

Secondly, quality of job related information significantly changed the evaluations of the applicants'. With respect to interpersonal skills, the significant differences between the female applicants' (favorable and unfavorable attitude conditions) based on biographical information were eliminated on ratings based on behavioral information. It was also found that the ratings of the female applicant, summed across attitude, significantly increased between the biographical to the behavioral condition.
on evaluations of leadership behavior. Finally, ratings based on biographical information of decisiveness, decision-making ability and overall ability were found to be significantly higher than ratings based on behavioral information when scores were summed across attitude and sex of applicant.

This study was interested in examining three factors to determine their effects. Of initial interest was if a differential evaluation process was used for male and female applicants applying for a management position. Several studies (Fidell, 1971; Goldberg, 1968; Mischell, 1974) have noted that females tended to be rated significantly lower in competency than equivalent males in traditional male occupations. This study was interested in determining if this phenomena also existed for the traditionally male occupation of management.

Secondly, attitude toward women in management was examined for its effect on the evaluation of female applicants relative to male applicants. Considering attitudes toward any class of people are variable, it was speculated that subjects with favorable attitudes toward women in management would evaluate a female approximately the same as the male applicant but significantly higher than subjects with unfavorable attitudes rating the female applicant. It was assumed, since management is a male occupation, that attitudes toward males would be generally favorable.

An attitude measure designed specifically to tap attitudes toward women in management was used to assess the attitude variable. However, it only had relevance in conjunction with evaluations
of the female applicant even though subjects scoring above the upper 30th percentile and below the lower 30th percentile on the attitude measure (WAMS) were selected for statistical evaluation of the male applicant ratings. It was previously stated attitudes toward males were assumed to be favorable consequently, attitude toward women in management had no predicted effects to the evaluations of the male applicant except to control for any effects, if any, concomitant with the WAMS.

Finally, quality of job related information was explored to ascertain its effect on the evaluation process between male and female applicants. It was speculated that stereotypic expectations would determine the relative level of favorability toward management behavior for identical male and female applicants when ratings were based on information not directly related to a particular job position. Biographical information comprised this condition. However, specific job related information in terms of behavioral descriptions of management behavior would eliminate stereotypic expectations for the male and female applicants and consequently eliminate any differences between the sexes. Furthermore, the information conditions presented the applicants' as being of average ability. This competency level was chosen essentially for two reasons: (a) average competency would be the most frequently encountered by employers, and (b) outstanding women have previously been found to be rated equivalent to male counterparts (Pheterson et al, 1971).
It was interesting that significant interactions occurred in the interpersonal skills and leadership dimensions. According to Schein (1973) interpersonal skills are typically associated with female stereotypic behavior while leadership is generally considered a stereotypic male trait. Perhaps relatively lower ratings for a particular sex is more dependent upon whether the rater believes the behavior should be cultivated in the ratee's sex rather than believing the ratee, due to their membership of a class, is inferior. For example, typically males are reinforced for leadership behavior and thus would be expected to be more adept than females in motivating and directing others. On the other hand, generally, females are expected to be highly developed in interpersonal behavior since, traditionally, a female has been rewarded for her ability to understand others feelings, be intuitive, consider others attitudes, etc. Schiens (1973) findings are useful for explaining the findings of this study with respect to leadership and interpersonal skills.

In reference to the statistical analysis of the leadership dimension it was found that ratings of the female applicant, summed across attitude, significantly increased between biographical and behavioral ratings and no differences were found between the sexes on behavioral information. This appears to suggest behavioral information has a significant impact in eliminating stereotypic expectations suggested in Schein's (1973) study that females are not capable of leadership behavior. However, there is a problem with the statistical findings of these interaction
effects. Attitude toward women in management had no effect on ratings of the female applicants. It was predicted that subjects with high expectations (favorable attitudes) for female managers would rate the female approximately the same as a male applicant on biographical information and subjects with unfavorable attitude would rate the female significantly lower than the other attitude \( X \) sex conditions. The actual findings that attitude toward women in management had no significant effect were surprising especially since the attitude measure included items about the leadership potential of women.

There seems to be two feasible explanations for the lack of significant effects of attitude in the statistical analysis. One possible interpretation is that the response to leadership potential on the attitude measure and on the experimental rating form were based on different definitions of leadership. For example, the subjects may have defined leadership differently than the operational definition used in the experimental rating form. It is difficult to speculate exactly what factors guided a favorable or unfavorable response to leadership on the attitude survey, however, in contrast to the experimental setting, an operational definition was not provided.

Another explanation is that based on the female applicants average qualifications the subject with favorable attitudes toward women in management may have perceived that the female applicant had not engaged in a sufficient number of leadership experiences to be able to cultivate the ability to direct and motivate others.
As a consequence of this perception, the subject probably rated the female in accordance with the traditional female stereotype. Implicit in this explanation is that the subjects considered the traditional reinforcement (i.e. interpersonal skills) pattern for females, and although they believed women had the potential for leadership, they did not believe this particular female applicant had participated in enough leadership experiences to cultivate leadership behavior.

This later interpretation seems to be the most realistic explanation especially when the statistical analysis at each information condition is reconsidered. The female applicant tended to be rated lower than the male applicant in the biographical condition. Furthermore, the male applicant, when summed across attitude, did not significantly increase between the information conditions in contrast to a significant increase between the successive information conditions for the female applicant. These findings tend to suggest the male applicant was not perceived as deficient as the female in leadership ability, perhaps because males are generally expected to be reinforced for leadership in other situations than a work or academic environment. In addition these findings also suggest behavioral information did not significantly effect stereotypic expectations for the male as it did for the female applicant.

With respect to interpersonal skills, Schein's (1973) findings also lend support to an explanation of the statistical results. Essentially, the analysis found inverse effect to the
predicted results in the biographical condition for the female applicant by subjects with favorable attitudes toward women in management. These later findings tend to suggest subjects with favorable attitudes toward women in management consider female managers to be lacking in interpersonal skills. It is also interesting that the male applicant (both attitude conditions toward women in management) did not tend to be rated as low as the female rated by subjects scoring in the upper 30th percentile of the WAMS. Although attitude toward men in management was not measured, it was assumed that the male applicant would receive approximately the same level of rating as the female applicant evaluated by subjects with favorable attitudes towards women in management. These findings, that females applying for managerial positions are expected to lack interpersonal skills, may have just as unfavorable impact as traditional stereotypes could be toward other requisite characteristics for management positions.

In continuing the examination of the attitude measure, although the attitude measure did not directly measure interpersonal skill, it did tap attitude toward the females potential for aggressive and competitive behavior. Persons who score high on the scale view women as capable of aggressive and competitive behavior (Peters et al, 1974). These high scorers constituted the favorable attitude condition in this study. However, aggressiveness and competitiveness tend to imply behavior mutually exclusive of interpersonal skill. For example, aggressiveness and competitiveness imply abrasiveness, manipulation and perhaps
treated as objects. On the other hand, interpersonal skill, by definition, is the ability to consider others' feelings, values and attitudes. Treating people as objects and considering others' feelings seem to be opposite behaviors. Therefore, if the subjects did perceive women in or applying for management positions as generally treating persons as objects, it seems reasonable that they would not rate females particularly high on interpersonal skills. Furthermore, this explanation, in conjunction with the results of this study, tends to suggest an equally detrimental stereotype exists for females by persons with favorable attitudes toward women in management as measured by the WAMS.

With respect to the analysis of interpersonal skills, the findings tended to confirm that stereotypes influence evaluations based on biographical data, however, behavioral information afforded equivalent evaluations across sex of applicant and attitude condition. The statistical results showed no significant differences between attitude conditions for both male and female applicant. The most outstanding change across the successive information conditions occurred for the female applicant rated by subjects scoring in the upper 30th percentile of the WAMS in that these ratings significantly increase between the biographical to the behavioral condition. Furthermore, this sex of applicant X attitude condition tended to be rated slightly higher than the female applicant rated by subjects in the lower 30th percentile and the male applicant (both attitude conditions toward women in management) even though the results were not
significantly different. These later findings tend to suggest a contrast effect from initial expectations.

Contrast effects are characterized by an under or over estimation of an even or point (Holmes & Berkowitz, 1961). A psychological discrepancy arises between the expected event and the actual event. Consequently, the person is forced to resolve this discrepancy. Depending whether the subject views the discrepant information as positive or negative toward the particular situation will determine if the event is underestimated or overestimated.

In reference to this study, the behavioral information for interpersonal skills was probably perceived as positive toward managerial effectiveness for the female applicant in both attitude conditions. Due to the finding that both conditions tended to overestimate the point for equivalent males. Also, in that the female applicant also tended to be rated slightly more competent in leadership than the male applicant, based on behavioral information reinforces the explanation that a positive discrepancy occurred due to behavioral information with respect to the female applicant.

The findings of contrast effects are not particularly surprising when learning theory is used as an interpretation. Often when individuals are presented with novel stimuli they tend to overestimate or underestimate their responses. During the learning process, reinforcement and feedback are necessary so the subject can make the appropriate adjustment in their
response then eventually make an accurate response to the stimuli. This occurs when all the relevant information about the stimuli is integrated (Keller, 1969). Since the subjects in this study were presented with novel stimuli, (i.e. behavioral information) probably for the first time, this would be comparable to the initial trails in the learning process. Considering expectations for females are generally negative in the leadership and interpersonal skills dimensions (specifically the favorable attitude condition), the novelty of the behavioral information, subjects probably overestimated the females' ability, relative to the males', due to a large input of information which was favorable toward the job specifications. Consistant observation with reinforcement and feedback would probably eventually show equivalent ratings of behavioral information for male and female applicants. But equivalent evaluations for equivalent behavior is the ideal. Unfair discriminatory biases and expectations have been operative and have been reinforced for a considerable period of time.

What is important is to find a process which could assist in reeducating individuals on a woman's potential. Behavioral information appears to allow the recognition of a woman's capabilities and may be helpful as a source of information in a relearning process.

Lack of statistically significant three way interactions and/or conflicting main effects to the expected results in the analysis of decisiveness, decision-making ability, coordinating
ability, overall potential and the summed total of all the management dimensions are difficult to explain. The thesis of this study speculated the female applicant receiving ratings by subjects with unfavorable attitudes would be rated significantly lower than all other sex of applicant X attitude conditions in the biographical condition. Considering that the predicted effects were not found, again it is necessary to reexamine the attitude survey.

In reviewing the item content of the WAMS (Appendix C) there appear to be no items assessing attitude toward woman's potential decisiveness, decision-making ability or coordinating ability. Therefore, the WAMS was not capable of directly identifying and predicting the stereotypic attitudes, favorable or unfavorable, for these characteristics. Furthermore, a further examination of the survey's item content (attitudes toward biological barriers, leadership, responsibility, learning ability, aggressiveness and competitiveness) provides limited sources to infer a woman's expected capacity for decisiveness, decision-making ability, coordinating ability and overall potential. In future studies of this nature, it is suggested that traits relevant to the experimental materials be measured on the attitude survey.

In reference to the significant decrease between the biological and behavioral condition of decisiveness, decision-making ability and overall potential, Figure 2 indicates the female applicant tended to have more of an impact on the significant
decrease for decisiveness and decision-making ability, with the behavioral condition in and of itself contributing to the decrease for overall potential ratings.

The overall rating is difficult to interpret mainly because this dimension is a total for all management dimensions and is difficult to align to any sex-stereotype. However, it is interesting that the female applicant tended to be rated higher than the male applicant in both the biological and behavioral condition. It seems possible that a separate group of management characteristics may tend to effect the overall potential rating for female applicants than male applicants. Future studies may wish to explore this possibility.

The findings of the decisiveness and decision-making dimension, although the male and female do not significantly differ in the behavioral condition these findings do not correspond to the predicted effects. Due to contrast effects, it was predicted the female applicant would be found to be rated slightly higher than the male applicant. This would be found due to a slight decrease in ratings by subjects rating a female with a favorable attitude and a significant increase in ratings of the female applicant by subjects with unfavorable attitudes.

It is interesting that Schein's (1973) study also noted decisiveness and decision-making ability were strongly associated with male behavior. This study found ratings of the female applicant in the decisiveness and decision-making ability tend to contribute the most to the significant decrease between ratings
of the biographical condition to the behavioral information condition even though the male and female applicant did not significantly differ in the later information condition. Again, attitude condition did not significantly effect ratings of the female applicant. This tends to suggest the subjects had a higher standard for the female applicant in decisiveness and decision-making ability while the subjects tended to be more lenient in judging decisiveness and decision-making ability for male applicants. Considering that these two dimensions are considered to be more highly associated with males (Schein, 1973), again it seems possible the subjects may assume traditional reinforcement patterns for both sexes such that, even though the male may not readily demonstrate his ability, he is probably still perceived as fairly adept in these two dimensions. However, the traditional reinforcement pattern for females does not include decisiveness and decision-making ability. Therefore, even though the female did demonstrate some ability in both these dimensions, it was not sufficient to overcome or contrast the female stereotype.

One final comment must be made with respect to the findings of the leadership deminsion and the ratings of the female applicant on decisiveness and decision-making ability. According to Schein (1973) all three are typically associated with male behavior, yet the female applicant appeared to contribute the largest amount to the increase between the biographical and behavioral condition, while the female applicant also appears
to contribute the greatest amount to the decrease between the successive information conditions for decisiveness and decision-making ability. The interpretations above for the findings of leadership and decisiveness and decision-making ability with respect to the information conditions appear to contradict each other. However, a reexamination of the experimental materials offer some insight. The behavioral descriptions (Appendix A) note the applicants leadership ability "... slightly outnumbered his/her weaknesses," while decisiveness and decision-making ability respectively summerized the applicant's ability "... as strong points equalled his/her weak points", and "... slightly more weaknesses than strengths". According to the hypothesis of this study, the leadership summary probably contrasted the female stereotype while decisiveness and decision-making ability were probably assimilated. Although the intent of this study was to present an overall average applicant, the individual behavioral summaries did vary to a slight degree with little consideration given to the summary statement of a particular dimension and how the dimension related to typical sex stereotypes. This factor should probably be considered in future studies of this nature.
COMMENTS AND CONCLUSIONS

There seems to have been some difficulty in finding results congruent with the predicted hypotheses. Some problems were experienced in regard to the experimental setting which may have contributed to the lack of significant three way interaction effects. Furthermore, there is some evidence to suggest the attitude measure was insufficient for the needs of this study.

With respect to the experimental context, many subjects would not respond to the rating form or became anxious about the experimental format (i.e. in-basket). When the rating was not completed, many subjects noted they needed an interview to be able to accurately evaluate the applicant. This response tended to suggest these subjects wanted personal experience with the applicant prior to evaluating the applicant's suitability. Even though this study attempted to simulate the organizational context (i.e. presenting the memos as written by a supervisor requesting a written evaluation), as indicated by the subjects' comments, there was some justification for the lack of responses (i.e. personal interview) especially in the biographical condition.

Other subjects perceived the in-basket exercise as a "test" of their ability to judge information. Specifically, one male subject became so anxious about the "test" that he refused to complete the exercise after responding to only two
memos even after he was told no one but the experimenter would see the results.

Finally, several subjects failed to perceive the applicants' sex. Great effort was made to place the applicant's name in strategic positions on the rating forms, forms and information sheets. The failure to perceive the sex of the applicant may indicate these subjects did not perceive sex as relevant to the demands of the task. On the other hand, it may mean the subject evaluated the experimental materials with little consideration. Rather than second guess the subjects' motives, all responses of this nature were excluded from statistical analysis. To eliminate the methodological problems of this study from future studies of this nature, a more approximate simulation of selection situations should be used.

The attitude measure also probably contributed to the lack of significant three way interactions hypothesized by this study. It was noted in the discussion section that the WAMS did not measure attitude toward women managers' interpersonal skill, decisiveness or decision-making ability. Therefore, the measure was insufficient for directly predicting attitudes towards these dimensions. In addition to the WAMS insufficient item sampling, the measure generally appeared to be unable to predict attitude toward relevant management characteristics exclusive of interpersonal skills. The WAMS seemed to primarily explore attitude toward characteristics which were generally assumed to limit women from management positions (i.e. female barriers and acceptance
of women in management). Furthermore, attitude toward managerial traits in females were not sufficiently represented in the WAMS in kind to predict attitude toward relevant managerial characteristics defined by this study.

It seems attitude toward factors traditionally limiting women from entering management positions do not generalize to the ratings of requisite managerial characteristics. This appears to contradict Mischell's (1974) thesis that sex discrimination mirrors the probability for success in a particular situation. Discrimination, according to this study appears to be more dependent dependent on the perceived ability to perform the requisite characteristics of the job and how these characteristics relate to traditional sex stereotypes. Future studies may wish to develop or utilize attitude measure which assess attitude toward women in requisite management characteristics.

The findings of this study suggests, in spite of the recent inroads by feminist groups, a different type but equally negative stereotype exists for women participating in management positions and discrimination still tends to exist, corresponding to traits typically associated with each sex. In addition, behavioral descriptions tend to mediate discrimination through assimilation and contrast effects plus this kind of information seems to be a valuable resource for developing and modifying expectations associated with female behavior.

With respect to the stereotype for female managers, attitude had a significant effect on the expectation based on biographical
behavioral information eliminated discriminatory effects. This conclusion is applicable to the findings of interpersonal skill ratings.

Behavioral information allows a more variable representation of both the male and female applicants' ability instead of a constant expectation across all management dimensions (see Figure 2). This behavioral information tends to show ratings congruent with sex stereotypes (i.e. the female tending to be rated lower than the male on decisiveness and decision-making ability) even though no significant differences were found. This suggest the female applicant behavior was assimilated into low expectations. However, the behavioral information can provide relevant information sufficient to create a contrast to sex stereotypes as suggested by the rating of interpersonal skills of the female applicant by subjects with unfavorable attitudes and the leadership rating of the female applicant (see Figure 1).

The results of this study tends to support the work of both Pheterson et al (1971) and Clifford et al (1972) with respect to exceptional females or females showing behavioral atypical for their sex tending to be rated higher than equivalent males. This was found in the leadership dimension. This study also supports Druckers's (1973) findings that behavioral evaluations eliminate sex discrimination. Specifically, this study found behavioral information eliminated the differential rating of the female applicant between attitude conditions on ratings of
interpersonal skills.

In spite of the methodological pitfalls, the insufficient attitude survey and lack of consideration given to management characteristics and how they relate to sex stereotypes, a noteworthy implication emerged in this study. It seems that behavioral information as derived from assessment centers probably provide females with more objective evaluations relative to evaluations based on resumes. The traditional findings of androcentric biasing, (i.e. the perception that women are inferior to men) plus stereotypic expectations of female managers appear to be eliminated on certain management dimensions. This evaluation process, based on behavior descriptions of relevant management characteristics, tends to allow the recognition of a females potential in management positions according to her actual abilities rather than according to cultural expectations associated with female. Furthermore, this implies assessment center information may be a viable resource for organizations desiring to recognize and develop women for management behavior with the ultimate objective being to promote these women into managerial positions.
APPENDIX A

EXPERIMENTAL IN-BASKET
This exercise is a pilot study to determine the kinds and the way individuals make judgements in exercises which are used to evaluate managerial potential and to develop training programs for managers. You are asked to assume the role of a hypothetical manager and respond as if you were that person in a particular situation. Please start from the beginning then work toward the back responding to each item as you come to it. Once you have responded to a specific memo, please do not go back and change it. Please turn to the instructions (next page) and after reading them, proceed with the exercise.
JASON'S DEPARTMENT STORE

EXERCISE INSTRUCTIONS

For this exercise, consider yourself Bill Jacobs. You have
just been promoted from your position as the Operating Manager at
Jason's Department Store in Orlando, Florida to Assistant Store
Manager position in the chain's Tampa store.

Jason's is a chain of stores operating in Florida, southern
Alabama, and Georgia that caters to higher income customers. It is
primarily engaged in selling soft goods such as clothes and linens
but also has large departments selling furniture, stereos and tele-
vision sets. Two of Jason's management personnel in the Tampa
store, Donald Smith and Gary Grimes, have left the company after
giving short notice to join another firm which is opening a new
store in town. This leaves two openings, the Operating Manager
and the Assistant Store Manager. You have been brought in to fill
the Assistant Store Manager position because of your good work
record with the company and because of your experience as an
Operating Manager. The new Operating Manager will not arrive
for three weeks and you will have to handle some of his work
until he arrives.

As Operating Manager at the Orlando store you have been
very busy and have not been able to get away to handle the duties
of your new job. Your duties as Operating Manager were directing
operating and non-selling services such as maintenance, loading
and storage of merchandise, receiving and pricing of merchandise
for retail departments, and store protection and safety. You had
control over expenditures for repairs on the building. You arranged
for delivery of merchandise to customers. You resolved complaints
from customers in reference to your services. Finally, you made
recommendations to personnel to hire needed employees for your
various departments.

You are now at your new office in Tampa for the first time
to try to clear up any matters that need your immediate attention.
Today is June 8 and a Sunday and the store offices are closed.
The time is 4:30 in the afternoon and the store closes at 5:30
and you must leave at that time. You will have to be in Orlando
on Monday and Tuesday, June 9 and 10 to report on the cost of
remodeling the Orlando store at a meeting with higher management
and will not be able to return to your new office until Wednesday,
June 11.

The store offices are closed, the files are locked, and you
can't reach anyone by phone. You have a pile of papers in the in-
basket which require special attention. You have one hour to take
care of any problems which the materials present. Please indi-
cate on each item why you are taking the steps and follow any
instructions the memos give. Write down everything you decide
or do. Make memos to yourself, draft letters for your secretary
to type and complete forms.
Jason's Department Store, Tampa Florida

Monthly Sales Last Year (X$100,000)

Monthly Sales This Year (X$100,000)

Monthly Sales Year Before Last (X$100,000)
Store Staff Duty Schedule

Store staff members will work the following nights in June until 9:00 p.m.:

<table>
<thead>
<tr>
<th>Employee</th>
<th>Dates</th>
</tr>
</thead>
<tbody>
<tr>
<td>Larry Bovine</td>
<td>3, 9, 14, 19, 24, 28</td>
</tr>
<tr>
<td>Don Smith</td>
<td>4, 10, 16, 20, 25, 30</td>
</tr>
<tr>
<td>William Sharon</td>
<td>5, 11, 17, 21, 26</td>
</tr>
<tr>
<td>John Arts</td>
<td>12</td>
</tr>
<tr>
<td>Edward Culps</td>
<td>6, 12, Vacation (15-29)</td>
</tr>
<tr>
<td>Gary Grimes</td>
<td>2, 7, 10, 13, 18, 23, 27</td>
</tr>
</tbody>
</table>

Store staff members will work the following Saturdays during the day:

<table>
<thead>
<tr>
<th>Employee</th>
<th>Dates</th>
</tr>
</thead>
<tbody>
<tr>
<td>Larry Bovine</td>
<td>None</td>
</tr>
<tr>
<td>Don Smith</td>
<td>28</td>
</tr>
<tr>
<td>William Sharon</td>
<td>7</td>
</tr>
<tr>
<td>Edward Culps</td>
<td>14, Vacation (15-29)</td>
</tr>
<tr>
<td>Gary Grimes</td>
<td>21</td>
</tr>
</tbody>
</table>

Bill,

You'll have Don Smith's schedule and we'll have one of the trainees take Don Smith's schedule.

Liz Jones
### Department Head Vacation Schedule
#### Non-Mdse. Depts.

<table>
<thead>
<tr>
<th>Name</th>
<th>Vacation Times</th>
</tr>
</thead>
<tbody>
<tr>
<td>John Arts</td>
<td>June 1-15</td>
</tr>
<tr>
<td>Jane Boswell</td>
<td>July 6-13</td>
</tr>
<tr>
<td>Larry Bovine</td>
<td>April 6-20</td>
</tr>
<tr>
<td>Edward Culps</td>
<td>June 15-29</td>
</tr>
<tr>
<td>Brenda Dew</td>
<td>May 3-17</td>
</tr>
<tr>
<td>Elmira Doss</td>
<td>June 15-29</td>
</tr>
<tr>
<td>Jeff Ellis</td>
<td>June 9-14, August 9-23</td>
</tr>
<tr>
<td>Elmer Ford</td>
<td>May 3-17</td>
</tr>
<tr>
<td>Robert Forest</td>
<td>June 22-29, July 12-19, August 16-23</td>
</tr>
<tr>
<td>Bill Foster</td>
<td>October 11-25</td>
</tr>
<tr>
<td>Mary Green</td>
<td>May 6-20</td>
</tr>
<tr>
<td>Gohn Gribble</td>
<td>October 14-28</td>
</tr>
<tr>
<td>Gary Grimes</td>
<td>July 5-12, August 2-16</td>
</tr>
<tr>
<td>Dave Johns</td>
<td>June 29-July 12</td>
</tr>
<tr>
<td>Charles Laws</td>
<td>July 6-20</td>
</tr>
<tr>
<td>John Lawson</td>
<td>April 15-29</td>
</tr>
<tr>
<td>Charles Mann</td>
<td>June 1-15</td>
</tr>
<tr>
<td>Ed Mitchel</td>
<td>July 6-20, October 14-21</td>
</tr>
<tr>
<td>Betty Murphy</td>
<td>May 10-24</td>
</tr>
<tr>
<td>Bill Park</td>
<td>June 8-22</td>
</tr>
<tr>
<td>William Sharon</td>
<td>May 17-June 1</td>
</tr>
<tr>
<td>Sally Short</td>
<td>July 13-27</td>
</tr>
<tr>
<td>Donald Smith</td>
<td>August 23-October 14</td>
</tr>
<tr>
<td>Joe Stark</td>
<td>June 1-15</td>
</tr>
</tbody>
</table>
Mr. Jacobs,

As your new secretary, I am looking forward to meeting and working with you. I have been working for Mr. Grimes for three years now and like my job very much.

The following are some things Mr. Grimes was not able to complete before he left. I thought you might want to look at them before you go to Orlando.

Will be looking forward to seeing you when you return on Wednesday.

Jane Phillips
We will have the use of the new computer replenishment ordering system as of the first of June. This system should take much of the load off of the Ordering Department and the Receiving Department as the writing of the actual orders will be done by the computer and pricing will be done by the source. The deadline for having all orders sent for July receipt is June 18. Inventory counts must be submitted to the Ordering Department two working days prior to being sent to the computer and the computer center requires two working days to write all the orders. Inventory counts must therefore be submitted four days prior to the ordering deadline for the next month's receipts.

The following departments are affected by this new system: 12, 18, 23, 41, and 46. All these departments must turn in their inventory counts before the deadline or the store will have to write the orders itself. The computer is set up to handle one set of data in a specific order so if one department does not get its counts in, the store will have to write orders for all the departments.

John Gribble
Date: May 30

To: Donald Smith, Operating Manager

From: Joe Stark, Delivery Department Manager

Mr. Smith,

As you know, we are short two trucks until the new trucks come in July 1st. We are also short of men until we can get some trained (about 2 weeks). With all this, we have one big additional problem, John Monel! He's been over here 3 or 4 times a week yelling his head off about stuff getting delivered late, etc. In our present situation, we're lucky we can deliver at all. I've already had one good man to quit because of Mr. Monel arguing with him. Tell him to run his own department and stay the hell out of mine. I can't afford to lose any more men like Bill Lance.

Joe Stark
JASON'S DEPARTMENT STORES
INTER OFFICE MEMORANDUM

Date:       June 5
To:         Bill Jacobs
From:       Robert Forest

Bill,

As you might already know, Jason's is going to be opening a new store in Kissimmee. We have filled many of the administrative positions but still have to find someone to fill the Operating Managers position. Larry Bovine has only received one application and needs assistance in evaluating the applicant. Attached is a copy of his resume and we need you to rate him on some characteristics we feel are necessary for the job. We selected you for this since you are most familiar with the responsibilities and demands of the Operating Managers position. The kind of rating you give him will determine whether he will be invited for a personal interview, so it is important that you make a decision with this information on each characteristic and overall. The rating is needed immediately so please return the completed rating to me as soon as possible.

Thanks,

Robert Forest
PERSONAL DATA

* Name: James N. Davis
Address: 1504 North Bumby Ave.
        Orlando, Florida
Marital Status: Single
Date of Birth: April 6, 1948
Place of Birth: Philadelphia, Pennsylvania

HIGH SCHOOL INFORMATION

School and Location: Winter Park High School
Activities: Intramurals, Tennis, Swimming
Class Standing: 106 in a class of 250

COLLEGE INFORMATION

School and Location: University of South Florida
Major Interest: Business Administration
Minor Interest: Economics
Percentage of total expenses earned: 25%
Activities: Intramurals, Member of the Business Club
Member of University Center Activity Board
Scholastic Standing: (A=4.00) GPA; overall-2.75 major-2.60
Degree: B.S. Business Administration-June, 1970

BUSINESS EXPERIENCE

1968-1970 Mathews Department Store, Tampa, Florida
        Shoe Department Part-time.
        TV and Stereo Full-time Commission sales.
1973-1975 Laing's Department Store, Orlando, Florida
        Department Manager Small Appliances.

INTERESTS AND ACTIVITIES

Classical music. Enjoy sailing, skiing and tennis when time permits.

* Janet N. Davis substituted to indicate female applicant
JASON'S DEPARTMENT STORES
PERSONNEL DEPARTMENT

Please write the numerical rating for the applicant in the space to the left of the characteristic.

POSITION: Operating Manager-Kissimmee, Florida

* NAME: James N. Davis

Scale:

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<tr>
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Decisiveness: The ability to make decisions where decisions are called for.

Decision-making Ability: The ability to draw conclusions on information and direct actions in light of these conclusions with foresight of the possible effects on the organization.

Coordinating Abilities: The ability to organize and plan work loads in an efficient manner.

Leadership Abilities: The ability to motivate others, delegate responsibility, and have others look for directions from this person.

Interpersonal Skills: The ability to tolerate stress, to consider others feelings, values and attitudes. The ability to communicate clearly with others.

Overall: Value the applicant would be to the company.

Would you hire this person for this position?

__ Yes  __ No

* Janet N. Davis substituted to indicate female applicant.
JASON'S DEPARTMENT STORES
INTER BRANCH COMMUNICATION

TO: Robert Forest, Store Manager
Tampa, Florida

DATE: May 29

FROM: John Lyons, Computer Operations Mgr.
Miami, Florida

For your information, the computer center will not be operative from June 17 to June 20 due to the need for addition of new equipment to upgrade our capabilities.

John Lyons

Attn: Gary
JASON'S DEPARTMENT STORES
INTER OFFICE MEMORANDUM

Date: June 5
To: Donald Smith
From: Dave Johns

I have been having a very hard time in the pricing department in trying to keep up with the large increase in merchandise that we are receiving due to increased sales this year. We were O.K. in February and March but we have been way behind for the last two months. I don't think we can keep this up without hiring another girl.

I have also had a problem with one of my pricing girls. Her name is Sharon Sellers and she doesn't seem to be working out too well. I did a spot check on the merchandise she priced on May 28 and 29 and she had mispriced over half the items. I have gotten most of those prices changed but I don't know if I've found all of them. I may have to replace her and get a new girl.

That would mean hiring two new girls. Will you allow me to at least hire one more girl to add to the ones I now have? I need to know soon.
JASON'S DEPARTMENT STORES
INTER OFFICE MEMORANDUM

Date: June 4
To: Donald Smith, Operating Manager
From: John Monel, Dept. 27 Manager

Mr. Smith,

Something is going to have to happen in the delivery dept. They have been missing deliveries, delivering the wrong goods, damaging merchandise and messing up my inventory counts by moving goods all over the warehouse. I have had 4 refunds this past week on sale goods that were either damaged in delivery or weren't delivered on time. Some of our customers are very understanding about late delivery but I'm still losing about $1500 a week in sales due to problems in delivery. We cannot afford to have new merchandise damaged in delivery. I was overdrawn on mark-down money last month from having to take mark-downs on all the items damaged at the warehouse or in delivery. Our company can't afford this loss. Mr. Stark in delivery, won't even listen to complaints about his department. He says he's got troubles of his own. I wish you would make a careful study of this situation and see if you can't change the delivery situation before we lose any more good customers.

[Signature]

John Monel
Date: June 6
To: Bill Jacobs
From: Robert Forest

Bill,

Sorry to pressure you about the applicant for the Operating Managers position in Kissimmee but we are in need of the rating as soon as possible. However, we have recently received some additional information which may assist you in evaluating James Davis. Again, we are in need of a decision immediately so please rate him on all characteristics and overall.

Laing's had James assessed for managerial potential in an assessment center several months ago. You should remember the assessment center concept which Jason's has used with simulated managerial situations to determine success as a manager. Laing's utilized an in-basket, a management game and a leaderless group discussion.

The in-basket exercise contained interoffice memos and letters which required the candidate to react as if he were a manager and had received these items in his incoming mail. The purpose of the exercise was to assess leadership style, decisiveness, decision-making ability and organizing-planning skills. The management game set a hypothetical situation where the candidate was required to run a garment manufacturing company. The candidate received two helpers, role-played by two employees of the assessment staff. Although the candidate was not previously informed as to how his helpers would perform, he was evaluated on leadership ability in directing a helpful but incompetent assistant and an incompetent but antagonistic helper. Finally, another measure of leadership ability, decision-making and organizing-planning skills plus an assessment on how the candidate interacted with others were assessed through a group discussion where the candidate was assigned a position by the evaluators.

Attached is a form similar to the previous one you were given on June 5.

Thanks,

* Janet N. Davis

Bob Forest
Organizing-Planning

Davis's ability to coordinate material and data was relatively slow although systematic, such that, in the long run, he would not have quite enough time to complete the task. This was demonstrated in the in-basket exercise where he failed to complete 4 of the 25 memos in a 2 hour time period. Perhaps this weakness in organization had an effect on his lack of decisiveness on some of the problems. However, when he had to interact with others to obtain a clearly defined goal by the organization (Garment Manufacturing Exercise) he was particularly effective in coordinating a systematic plan. Consequently this produced an overall effect of the candidate demonstrating more weaknesses relative to strengths on this skill.

Inter-personal Characteristics

Davis always observed common courtesies, spoke clearly and to the point with adequate vocabulary. He demonstrated respect for others opinions and ideas in the group discussion and management game by listening to others ideas then summarizing the statements when appropriate with appropriate facial expressions and good eye contact with the person he was addressing. He remained calm and courteous toward the disagreeable and incompetent assistants in the Garment Manufacturing Exercise in spite of a restricted time element to achieve a particular goal. Overall in this characteristic, his strengths outweighed his weaknesses.

Leadership

In both group discussion and the Garment Manufacturing Exercise, Davis actively verbalized possible directions. He was able to retain control in the Garment Manufacturing Exercise where he was required to coordinate the efforts of two subordinates, one who was disagreeable and one who was incompetent. In both exercises he offered suggestions toward a solution and tried motivating others toward a solution by saying "what do you think?" or "I'm sure you'll do a good job." Although in the group discussion he effectively arbitrated disagreements between differing opinions, Davis did not always suggest the final solution. Overall, Davis's strengths slightly out numbered his weaknesses.

Decisiveness

Decisions on a merger, 10% overall reduction of production and several other strategies in the Garment Manufacturing Exercise were acted upon only 2/3 of the time by this candidate. This kind of decisiveness was also manifested in the in-basket exercise. On several memos which required action, Davis acted upon one of the 3 major problems, however, he acted upon almost 90% of the minor problems. In summary, this candidate's strong points equalled his weak points.

* Janet N. Davis
Decision-Making Ability

In the Garment Manufacturing Exercise, he attended to the pertinent facts, drew effective, solid conclusions and thusly formulated directions congruent with these conclusions. His performance on the in-basket also demonstrated attention to most of the facts, but at times misunderstood instructions and data such that it affected the quality of his decisions. In the group discussion, when confronted with opposing viewpoints which required an explication of his position, Davis would generally back down and agree with the consensus, although the solution would not necessarily be superior in effectiveness. In conclusion, Davis's ability to draw conclusions from information, overall, demonstrated slightly more weaknesses than strengths and depended on the kind of exercise in which he was involved.

Overall

This candidate's value as a manager would depend upon the demands of the position. When an objective is clearly defined for Davis, he organizes the data with efficiency (Garment Manufacturing Exercise). However, if the outcome is vague and requires a great deal of outside opinions, he becomes a little less decisive and requires a longer period of time to organize and draw conclusions. Davis generally considers feelings and opinions of others with patience and self control. In managerial position, this candidate's strengths would probably balance out his weaknesses.

* Janet N. Davis
Please write the numerical rating for the applicant in the space to the left of the characteristic.

**POSITION:** Operating Manager-Kissimmee, Florida

* **NAME:** James N. Davis

**Scale:**

<table>
<thead>
<tr>
<th>1</th>
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**Decisiveness:** The ability to make decisions where decisions are called for.

---

**Decision-making Ability:** The ability to draw conclusions on information and direct actions in light of these conclusions with foresight of the possible effects on the organization.

---

**Coordinating Abilities:** The ability to organize and plan work loads in an efficient manner.

---

**Leadership Abilities:** The ability to motivate others, delegate responsibility, and have others look for directions from this person.

---

**Interpersonal Skills:** The ability to tolerate stress, to consider others feelings, values and attitudes. The ability to communicate clearly with others.

---

**Overall:** Value the applicant would be to the company.

Would you hire this person for this position?

---

* Yes  ** No

---

* Janet N. Davis
June 3
1473 Venetian Way
Tampa, Florida 33608

Robert Forest
Store Manager
Jason's Dept. Store
2008 14th St.
Tampa, Florida 33609

Dear Mr. Forest,

As a long standing customer of your store, I am sorry that I must submit this complaint. I purchased a new television set from your store on May 17th and it was delivered on May 20th. The set that was delivered was scratched on the side and I refused delivery. The driver said that a new set would be brought by on the 23rd. The new set was not delivered on the 23rd so I called your store the next day and was informed that there was some difficulty in getting the set from another store and that the set would be delivered on the 28th. I was not at home, unfortunately and my wife accepted delivery. When I got home, I discovered that not only was the set scratched, but the delivery man had run his hand truck into my front door as he left and put a deep scratch in it finish. I decided that I would contact the Dept. Manager, Mr. Monel.

I called Mr. Monel yesterday and was told that nothing could be done about the door as it was not noted as damage by the driver on his trip sheet. They also denied that the set that was delivered was the same one that was delivered and refused earlier. They said that it would be two weeks before they could get the paperwork done and a truck out to pick up and replace the set.

I feel that this thing has gone on long enough. It will cost $22 to fix my door and I want the door fixed and a new set in my house before out-of-town guests arrive on the 14th. If I have not heard from you by the 9th of June, I will return the T.V. set for a full refund, cancel my charge account with your store and do business elsewhere.

Discontentedly yours,

Martin Schnabel
JASON'S DEPARTMENT STORES
INTER OFFICE MEMORANDUM

Date: June 2
To: John Gribble
From: Sally Short

We need to have a decision soon about whether or not to start writing orders for departments 12, 18, 23, 41 and 46 by hand. If we are to write them here as we have been doing, we will need to begin by June 9 at the latest in order to meet the June 18th deadline. If you decide to use the new computer system, we can wait longer and we can catch up on some of the work we are behind on and maybe not have to work so much overtime.

Sally Short

Can you handle this for me? John
I'm holding an important meeting in store safety in my office this Thursday at 2:00 p.m. Please be there and bring a list of safety suggestions. We're going to start a big employee safety push because of the number of workman's compensation claims we've had filed against us recently.
JASON'S DEPARTMENT STORES
INTER OFFICE MEMORANDUM

Date: June 3
To: Gary Grimes
From: Betty Pursiful, Dept. 16

I have a problem with some of my sale goods. We are now receiving goods for our big Mid-Summer sale starting June 12. We received 600 pairs of shoes which are marked $1.50 a pair less than the price I remember as being the sale price. I've lost my copy of the ad for the 12th and don't know how to check this out. I thought I'd let you know although it's probably just faulty memory. The shoes were priced May 28 by Sharon Sellers. The ad goes to press on the 10th.

Betty Pursiful
JASON'S DEPARTMENT STORES
INTER OFFICE MEMORANDUM

Date: May 15
To: All Department Heads
From: Robert Forest

From now on, all invoices received will be submitted to the Invoice Records Dept. promptly. In the past, many invoices have been submitted to improper departments.

Cc: All department heads (non mdse.)
    All department heads (mdse.)
    Store staff

Robert Forest
JASON'S DEPARTMENT STORES
INTER OFFICE MEMORANDUM

Date: June 6
To: Bill Jacobs
From: Jane Boswell

We're having a party for Betty Murphy, who will have 20 years
with the company on June 10th.
Mr. Garett will present her 20-year
service pin, and there will be cake
and coffee period. I thought that
you would want to attend and
meet some of the store's personnel.
The party will be in the depart-
ment manager's meeting room on
June 10th from 3:00 to 5:00 P.M. I'm
looking forward to meeting you
and hope to see you on the 10th.

Jane Boswell
APPENDIX B

POST EXPERIMENTAL QUESTIONNAIRE
1. Does the information presented in the exercise concerning the new computer system and the departments it includes indicate that you will be able to utilize the system this month?

2. Did you perceive the date of the memo from Forest to Grimes regarding the store safety meeting?

3. What sex was the applicant for the Operating Managers position in Kissimmee?

4. What do you think of Joe Stark's delivery department? Would you recommend talking to him immediately?
APPENDIX C

WOMEN AS MANAGERS SCALE
Using the numbers 1 to 7 on the rating scale given below, mark your personal opinion about each statement in the blank that immediately precedes it. Remember, give your personal opinion according to how much you agree or disagree with each item. Whether you agree or disagree with any statement, you can be sure that many people feel the same way you do. Please respond to all 21 items. Thank you.

1 = Strongly Disagree
2 = Disagree
3 = Slightly Disagree
4 = Neither Disagree nor agree
5 = Slightly Agree
6 = Agree
7 = Strongly Agree

1. It is less desirable for women than men to have a job that requires responsibility.

2. Women have the objectivity required to evaluate business situations properly.

3. Challenging work is more important to men than it is to women.

4. Men and women should be given equal opportunity for participation in management training programs.

5. Women have the capability to acquire the necessary skills to be successful managers.

6. On the average, women managers are less capable of contributing to an organization's overall goals than are men.

7. It is not acceptable for women to assume leadership roles as often as men.

8. The business community should someday accept women in key managerial positions.

9. Society should regard work by female managers as valuable as work by male managers.

10. It is acceptable for women to compete with men for top executive positions.

11. The possibility of pregnancy does not make women less desirable employees than men.

12. Women would no more allow their emotions to influence their managerial behavior than would men.

13. Problems associate with menstruation should not make women less desirable than men as employees.

14. To be a successful executive, a woman does not have to sacrifice some of her femininity.
15. On the average, a woman who stays at home all the time with her children is a better mother than a woman who works outside the home at least half-time.

16. Women are less capable of learning mathematical and mechanical skills than are men.

17. Women are not ambitious enough to be successful in the business world.

18. Women cannot be assertive in business situations that demand it.

19. Women possess the self-confidence required of a good leader.

20. Women are not competitive enough to be successful in the business world.

21. Women cannot be aggressive in business situations that demand it.
APPENDIX D

ANALYSIS OF VARIANCE TABLES
TABLE A: Analysis of Variance of Decisiveness Dimension as a Function of Applicants Sex, Attitude Toward Women in Management and Information Quality.

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TABLE C: Analysis of Variance of Coordinating Ability Dimension as a Function of Applicants Sex, Attitude Toward Women in Management and Information Quality.

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TABLE E: Analysis of Variance of Interpersonal Skills
Dimension as a Function of Applicants Sex, Attitude Toward Women in Management and Information Quality.

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TABLE G: Analysis of Variance of the Summation Across All Six Management Dimensions as a Function of Applicants' Sex, Attitude Toward Women in Management and Information Quality.

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