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Rice University, 1988
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BIASES IN EVALUATING MANAGERIAL JOB APPLICANTS:
THE EFFECTS OF GENDER AND PHYSICAL ATTRACTIVENESS

by

LAURA L. BIEBER

A THESIS SUBMITTED
IN PARTIAL FULFILLMENT OF THE
REQUIREMENTS FOR THE DEGREE

MASTER OF ARTS

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Houston, Texas
November, 1987
Biases in Evaluating Managerial Job Applicants: The Effects of Gender and Physical Attractiveness

Laura L. Bieber

Abstract

Two experiments were conducted to evaluate the effect of attractiveness and sex on subsequent evaluations of job applicants for both masculine and feminine managerial jobs. Several (Heilman & Saruwatari, 1979) researchers have suggested that attractive women are undervalued for the typical managerial job. However, few studies have examined the evaluations of attractive male applicants for feminine managerial positions. The first experiment was used to scale 200 photographs on the attractiveness continuum and to determine the type of traits or qualities that are characteristic of males or females. The second experiment applied these traits to create a feminine or masculine managerial job. Results of Experiment 2 indicated that attractive males were preferred to attractive female job candidates. Likewise, males were evaluated more favorably than females for the masculine managerial position. For the feminine managerial job, there was no significant difference between the evaluations of male or female applicants.
Acknowledgments

I would like to express my appreciation and gratitude to the members of my committee, Sarah Burnett and Craig Anderson, and to Robert Dipboye, whose guidance, understanding, and good judgment enabled me to complete this thesis.
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Since the 1970's, there has been an increase in the number of women occupying managerial positions. According to the United States Census, the largest percentage change for women during this decade was in the executive, administrative, and managerial groups. Indeed, only 18 percent of managers were women in 1970 compared to 31 percent in 1980. Even though the managerial job has remained the largest occupational classification for men, occupational segregation has declined resulting in an 11.6 percent increase in the proportion of women occupying this position from 1970 to 1980 (Rytina & Bianchi, 1984).

The enactment of the Civil Rights Act in 1964 and the creation of the Equal Employment Opportunity Commission have heightened awareness of sex discrimination. Despite this increased attention, the gains that were made from the incorporation of this legislation in work settings have been short-lived. Although the Civil Rights movement facilitated an increase in the representation of women in upper level positions and a decrease in overt discrimination, barriers still exist. For example, even though acceptable hiring and promotional attitudes dictate that women should receive the same consideration as men, there is doubt as to whether or not they were effective.

According to Barbara Everitt Bryant, senior vice-president at Market Opinion Research Co., women make up about 50 percent of entry management and 25 percent of middle management, but they account for a small percentage of upper management ("You've come a long way..." 1984). Moreover, women were not being given the opportunities for high power jobs, such as occupying positions on corporate boards. Only 367 women as
compared to 15,500 men held corporate board positions in the nation's top 1300 public companies.

Women managers believe their exclusion from the top ranks frequently is due to the reluctance of older male executives to deal with women in upper-level positions. Such a "passage of time" belief suggests that when the older generation of top executives retires, then the equality problems will be alleviated. Sutton and Moore (1985) noted that younger male executives expressed a slightly less favorable attitude towards female managers than older male executives, however it was not great enough to account for any real differences between the age categories of the older and younger male executives. Thus, the belief that younger male managers will be more accepting of women as managers than their older cohorts does not seem justified.

A more empirically investigated belief concerning the variety of factors responsible for the underrepresentation of women in management has been proposed by Heilman (1983). Her "lack of fit" model not only takes into account the process leading to sex discrimination within the workplace, but also explains other types of unfair discrimination practices (i.e. physical attractiveness bias). Biases in both sex and physical attractiveness present the possibility for two-fold discrimination in hiring practices and selection decisions. However, the outcomes of the interaction between these two types of stereotypes remain inconclusive. Therefore, the purpose of this paper is to explore this interaction and its effect on employment evaluations and selection decisions. With this goal in mind, it might prove useful to investigate each stereotype separately within the realm of the lack of fit model exploring the process by which sex stereotyping leads to
sex discrimination and the degree to which this model accounts for physical attractiveness stereotyping.

The Lack of Fit Model

Stereotyping is generally conceived of as an efficient means of categorizing a complex environment. Heuristic methods of categorizing people, however, can result in judgments of individuals that are both inaccurate and harmful. Although sex stereotypes have been the focus of much research, the dynamics of occupational sex bias have yet to be explored. To remedy this situation, Heilman (1983) proposed the lack of fit model as one explanation for the differential treatment of the males and females in managerial jobs. This model attempts to set forth causal explanations for sex bias in the organizational setting in addition to suggesting that a cognitive evaluation process is the method individuals use to appraise others. The model predicts that two elements when combined, underlie occupational sex bias. These two elements, sex stereotyping and the sex typing of jobs, will be described in greater detail.

According to Heilman (1983), the first factor, sex stereotyping, occurs when differential perceptions are formed of the characteristics possessed by males or females. In general, women and men are thought to possess traits that are polar opposites to each other.

Heilman believes that the second factor, sex-typing or the gender classification of jobs, results from attributing particular requirements to a given position. The requirements for a given job are perceived as congruent with the gender of job occupants currently dominating the job. For example, until recently managerial jobs have been held disproportionately by men. As
such, this occupational category was seen as appropriate for men and inappropriate for women.

Most high status jobs such as managerial jobs are viewed as "man's work" due to the recency in which women have attained positions of authority, received pay, and maintained a career. In addition, such high status jobs are perceived to require skills and attributes consistent with the "typical" male ideal. Feldman-Summers and Kiesler (1974) investigated the belief that men were expected to excel in all high status professional positions. These researchers failed to pinpoint even one high status job or position in which women were believed to be more successful than men. This evidence suggests that success, particularly for high status jobs, is perceived to be associated with men.

The final stage of Heilman's model addresses sex stereotyping, sex-typing of jobs, and their effects on sex discrimination. In essence, the lack of fit model states that expectations of success regarding an individual's performance are determined by the fit between perceived individual traits and the job's requirements. These requirements, defined in terms of the skills, talents, and abilities necessary to perform the job, could be considered predominantly masculine or predominantly feminine. The ratio of the perceived attributes to the perceived job requirements yields a fit assessment (see Figure 1). If the fit is good, the expectations of success regarding an individual's performance should be high. If the fit is poor, however, then the individual would be expected to fail. These expectations influence both individuals' self-evaluations and evaluations of others.
Figure 1. Relevant aspects of the lack of fit model

In the workplace, the lack of fit model could be easily applied. For example, it is possible that the managerial job has been sex-typed as masculine because the skills necessary to succeed as a manager correspond to "typical" male attributes, such as making quick decisions, being efficient,
and maintaining an aggressive, shrewd attitude. Women would clearly be at a disadvantage because their perceived traits would be incongruent with the sex-typing of the job. Their performance might be criticized and discredited, and lead to expectations of failure for women in the managerial role. Therefore, the greater the lack of fit between the perceived attributes and the job requirements, the greater the probability that sex biased judgments will occur.

Heilman’s model postulates that the two integrating components of the lack of fit model are the stereotyping of women and the stereotyping of jobs (occupational sex stereotyping). A review of the studies which investigate the prevalence for each of these forms of stereotyping will expand on the tenets of this model.

Sex Stereotyping

The lack of fit model proposes that unfair discrimination practices are due, in part, to sex stereotyping. Many studies have attempted to investigate systematically the way individuals organize their judgments of others. The prevalence of sex stereotypes affects not only the behavioral responses towards women but also their opportunities for advancement.

Because there are various forms of stereotypes, it might be valuable to distinguish between two types presented by Terborg (1977). The first, sex-role stereotypes, refers to commonly held beliefs concerning the appropriate roles of men and women. For instance, some actions that may be acceptable for a male manager such as verbally abusing a subordinate may be out of line or unacceptable for a female manager. The second, sex-characteristic stereotypes, concerns characteristic attributes or personality traits of males and females.
Traditionally, society has accepted the assignment of particular characteristics to males and females. Several studies (McKee & Sherriffs, 1957; Broverman, Vogel, Broverman, Clarkson & Rosenkrantz, 1972) have documented that certain characteristics are commonly ascribed to each sex. Some researchers (Fernberger, 1948; McKee & Sherriffs, 1957) found that the "typical" woman was perceived to possess traits such as consideration and understanding but also dependence, unambitiousness, and incompetence, whereas the "typical" male was thought to be competent, self-confident, independent, and ambitious. McKee and Sherriffs (1957) demonstrated that the traits associated with women were judged to be less valuable than those associated with men. For example, male achievement-oriented attributes such as ambitiousness were more valued by society than female's warmth and expressiveness traits. Although the evidence for sex differences based upon typical traits is substantial, such stereotypes may not be based on reality. For example, studies that have investigated sex differences on aggression (Feshbach & Jones, 1971), dependency (Maccoby & Jacklin, 1974), verbal abilities (Oetzel, 1966), and problem-solving, analytical skills (Matthews, 1972; Leder, 1974) have found little support for consistent differences between the sexes.

The traits believed to be possessed exclusively by males not only undermine women's perceived effectiveness but also lead to lower performance evaluations of females. Male-valued attributes, such as competence, separate otherwise equally qualified applicants for professional or upper level positions. Goldberg (1968) found that college women rated professional articles more favorably when authorship was attributed to a male rather than to a female. Other studies have revealed
that male painters (Pheterson, Kiesler & Goldberg, 1971), male applicants for study abroad programs (Deaux & Taynor, 1973), and male authors of quotations (Cline, Holmes, & Werner, 1977) were all judged superior to females of equal merit.

Spence and Helmrich (1972) reported that the magnitude of perceived performance differences could be reduced by portraying women as possessing highly valued male attributes. In their experiment, videotaped interviews described females as competent and masculine in their interests. Subjects preferred candidates who were masculine and competent over all other masculine-feminine, competence-incompetence combinations. The implications of this study in the workplace are disturbing. In order to be successful is it necessary for a woman to be "like a man" in her interests? One hopes that part of the contribution women can make in the workplace is to bring their own unique talents to a situation or problem.

Stereotyping Managerial Positions

Of course, sex stereotyping is not the only obstacle that women have to overcome in the business world. The managerial job, in particular, has proven vulnerable to sex stereotypes. Managerial positions are perceived to require toughness, stability, and judgment, traits which are perceived as incongruent with the "typical" female personality. Research has indicated that the managerial job demands stereotypically masculine attributes (Powell & Butterfield, 1979; Terborg, 1977). Occupational sex stereotyping which results from the formal belief that men are more appropriate for certain positions than women leads to a higher ratio of men being selected for and occupying in-role masculine positions (Schein, 1973). It seems that
sex stereotyping perpetuates the belief that men possess the necessary qualities to succeed in upper level positions. Schein (1973, 1975) demonstrated that both sexes accept the masculine stereotype as a model for managerial positions. Thus, the link between sex stereotypes and requisite management characteristics appears quite strong.

Another reason for sex stereotyping managerial positions stems from the inherent ambiguity of the tasks and activities involved in the job. Kanter (1977) stated that "despite the institutionalization and routinization of much of the work of large organizations and despite the proliferation of management experts, uncertainty remains a generic condition increasing with rank" (p. 52). Ross and Ferris (1981) suggested that as one’s vertical organizational level increases so does uncertainty about "well-defined standards" concerning a person’s duties, responsibilities, and activities. This view leads one to suspect that the greater the uncertainty about the job, the greater the dependence on more superficial and more salient factors such as gender. In this case, the need to define criteria of success for the managerial position is confounded with the nature of the job. Muchinsky and Harris (1977) noted that when the work situation was ambiguous, discriminatory biases that placed a greater emphasis on superficial yet traditional values were indeed likely.

Entry Discrimination Against Women in Management

Even though the managerial job may require certain masculine characteristics and is "uncertain" in its responsibilities, the more important issue is whether such factors lead to unfair discrimination in selection and hiring. Heilman’s (1983) model suggests that perhaps the combination of both sex stereotyping and the sex-typing of managerial
positions results in evaluations that women are less qualified than men for managerial positions. This faulty judgment process might affect organizations' willingness to employ females in "masculine" jobs.

There is considerable evidence that men are judged superior and more acceptable than women managerial applicants. For example, Rosen and Jerdee (1974) found that college undergraduates preferred male applicants over equally qualified female applicants, particularly in positions that emphasized the "demanding" nature of the job. Similarly, Cohen and Bunker (1975) concluded that applicants would be judged more favorably and more qualified when they were applying to a position suitable to their gender. Shaw's (1972) findings indicated that the sex of the applicant influenced the favorability of the evaluation in that male applicants were preferred for masculine positions. Other studies have suggested that male applicants were more likely to be offered higher starting salaries and more challenging work (Terborg & Ilgen, 1975). The prototype of the successful manager as masculine, aggressive and competitive is widespread even though on-the-job performance shows that differences in managerial effectiveness are minimal (Tsui & Gutek, 1981).

It is also important to note that the lack of fit model is not always supported. Although these studies preceded the lack of fit model, their findings suggest that the components of the lack of fit model do not always occur. Muchinsky and Harris (1977) found that women were preferred over equally qualified male applicants for not only feminine positions but also for masculine positions (i.e., management trainee for a mechanical engineering firm). In addition, Sharp and Post (1982) found that personnel
officers did not show any marked preference for applicants for sex-role congruent positions.

Attractiveness Stereotypes and the Lack of Fit Model

In light of the strength of such stereotypes, it is possible that unrealistic expectations concerning another's sex, attributes, and even physical appearance could have great impact on selection decisions. For example, personal attributes, such as age, race, and weight that ostensibly have little relevance to the job could either hinder or increase an applicants chance for success.

A number of studies demonstrated the presence of bias against physically unattractive applicants in selection decisions. Although the highlighting of seemingly irrelevant qualifications is objectionable, it is important to recognize the powerful effects of gender/attractiveness stereotypes and the restrictions they place on individuals. These stereotypes may play a mediating role in selection decisions. Physical attractiveness stereotypes and sex role stereotypes may form the basis for such judgments. Nevertheless, people sometimes base their actions on these expectations. One explanation for the process involved in physical attractiveness stereotyping has been proposed by Heilman (1983). Heilman (1983) extended the lack of fit model to include any negatively stereotyped group. Physical appearance is a potential biasing variable that undermines fair hiring practices. Earlier I described the lack of fit model in terms of the rater's perception of the job and its accompanying responsibilities. However, sex bias could also result from biased judgments concerning the degree to which a woman is believed to possess "typical" female attributes. For example, a woman considered "highly feminine" might be at a distinct
disadvantage when applying for masculine sex-typed occupations. The reasoning process involved in this attribution is closely connected to attractiveness bias research. From this perspective, the lack of fit model can be used to describe the way in which gender and physical appearance serve as potential biasing variables.

According to the lack of fit model, the adverse effects of attractiveness are due to the incongruence between the perceived traits associated with successful performance on the job and traits that are attributed to attractive individuals. Thus, attractiveness could hinder individuals in certain situations. For example, an attractive female applying for a masculine sex-typed job might be evaluated more negatively than an unattractive woman because of her greater perceived femininity.

Attractive males are viewed as more masculine than unattractive males and likewise attractive females are perceived as more feminine than unattractive females (Cash, Gillen & Burns, 1977). In essence, attractiveness enhances gender-related perceptions (Heilman & Stopeck, 1985b). Both masculinity and femininity have certain attributes and dispositions associated with them. Because of this association, those people who are more gender-typed are also believed to possess more stereotypic traits (Heilman & Stopeck, 1985a). Thus, the differential treatment of attractive and unattractive applicants is a result of these stereotyped assumptions.

Most upper level positions are sex-typed as masculine. Consistent with sex stereotyping, these jobs are held by men and are believed to require masculine skills. The closer a person's characteristics are to the job requirements, the more favorable is the prognosis for on-the-job success
(Heilman & Stopeck, 1985b). As a result, men who are thought to possess more masculine traits are seen as having a good person-job fit for male sex-typed occupations. However, the person-job fit for women is poor, resulting in the conclusion that women are better suited for female sex-typed occupations.

If a job is not sex-typed (e.g. nonmanagerial job) then either masculine or feminine attributes are sufficient to fulfill the job requirements. In these circumstances attractiveness would be beneficial for both sexes because it enhances gender-related perceptions. Heilman and Saruwatari (1979) demonstrated unattractive women were preferred over attractive women for managerial jobs, but the opposite effect occurred for clerical nonmanagerial jobs. Attractiveness was beneficial for male applicants regardless of the sex-typing of the position. Heilman and Saruwatari's (1979) findings are consistent with the idea that highly attractive people evoke stereotypic qualities that either “fit” or are incongruent with the gender classification of the job.

More evidence for Heilman's model was provided by Gillen (1981) who argued that attractive persons are stereotyped as possessing two types of "goodness", one that is sex-irrelevant and another that is sex-relevant. Sex-irrelevant goodness refers to the idea that attractive individuals are thought to possess more desirable traits in addition to being more successful than unattractive persons (Berscheid & Walster, 1974). Sex-relevant characteristics are perceived as appropriate for males or appropriate for females, but not both. In his research, Gillen attempted to distinguish between these two types of goodness. The findings indicated that perceived masculinity and femininity increased with physical
attractiveness for males and females respectively. Moreover, both males and females possessed sex-irrelevant goodness. Finally, Marvelle and Green (1980) found that attractiveness was only beneficial when the sex of the job applicant was consistent with the gender orientation of the job. When there was a sex-job incongruence, attractive applicants were less favored.

Problems with Past Research

Although there is evidence to support Heilman and Saruwatari’s hypothesis of an interaction between attractiveness and sex, at least two issues remain unresolved and will be the focus of this paper. First, few previous studies have tested a prediction which would appear to be crucial to the stereotype-fit model. If physical attractiveness increases the salience of sex-stereotyping, then attractive men applying for feminine jobs should be at a disadvantage. Likewise, attractive women applying for masculine jobs should also be at a disadvantage. A second issue is whether previous findings on sex and attractiveness can be generalized across stimuli.

The need for a crucial test. The first problem is the manner in which the lack of fit model has been tested. The lack of fit model postulates that physical attractiveness exaggerates the gender-related traits of the applicant. The model suggests that when an attractive woman applies for a managerial job, her attributes are perceived as incongruent with the position. If the model were correct then attractive men applying for sex-typed feminine jobs should also be at a disadvantage. This corollary of the lack of fit model has not yet been explored for Heilman and Saruwatari used a nonmanagerial job in which either masculine or feminine attributes were
judged appropriate. Consequently, attractiveness was an advantage for both males and females.

Cash et al. (1977) examined this issue while investigating the effects of sex and physical attractiveness stereotypes for masculine, feminine, and neuter jobs. In this study, attractiveness and sex of the applicant were the between-subjects variables with sex type of the job manipulated as a within-subjects variable. When occupations were in-role for the sex of the applicant, attractive applicants received higher evaluations than unattractive applicants on the qualifications variable ($p < .05$). Only marginal support was found for the remaining variables, hiring recommendations ($p < .10$) and success expectancy ($p < .15$). A trend in the data for female and neuter jobs found that attractive women were rated slightly above unattractive women applicants. For masculine jobs, there was a tendency for unattractive women to be rated as more qualified and more likely to be hired than attractive women. This trend could be construed as support for the Heilman and Saruwatari findings. However, the Cash et al. study does not provide conclusive evidence for the reversal effect of attractiveness for women applying for managerial positions.

It is important to note that the Cash et al.'s (1977) experiment did not use a managerial job as the sex-typed masculine job. All the jobs described were relatively low in status. A rigorous test of the lack of fit model would include positions that are not only masculine but are also higher in status and are thought to require achievement-oriented behavior inconsistent with the skills and talents generally associated with women. Furthermore, the Cash et al. (1977) study found a tendency for attractive males to be judged more qualified than unattractive male applicants for
feminine jobs. If this study is supposed to support the lack of fit model then the expected findings would be for unattractive males to be rated superior to attractive males for sex-incongruent positions since their gender related attributes would be less enhanced than those of attractive males.

To determine the generalizability of the lack of fit model a feminine sex-typed position could be substituted for the nonmanagerial position used previously. It seems important, however, to maintain the perceived qualifications for the position. Previous research has confounded the status of the job with the manipulation of sex-typing. One way of eliminating the effects of status would be to hold the job or position constant while manipulating the sex-typing of the position. For example, a managerial job and the associated responsibilities could be described in either traditional male terms such as competitive, ambitious, or in female terms such as intuitive or aware of the feelings of subordinates. Because the managerial job explicitly requires a variety of traits and skills descriptive of both males and females, this position seems an appropriate choice. One method in which the position might be sex-typed is in the choice of traits used to describe the job. Job content could be manipulated such the characteristics and traits of either sex is made salient. Therefore, the gender classification of the managerial job would be congruent with the sex of the traits described in the job description.

Replicability of the Heilman and Saruwatari findings across stimuli. The second problem concerns the issue of replicability. Although a number of studies have supported the proposition that gender-related attributes
increase with attractiveness, some studies have found that attractive females are rated inferior to unattractive females.

Dipboye, Fromkin, and Wiback (1975) investigated the preferences and discriminatory practices of professional interviewers. Their research indicated that interviewers evaluated applicants for a managerial position more favorably when the applicants were attractive rather than unattractive and male rather than female. Similar results were obtained by Cash and Kilcullen (1985). A follow-up study (Dipboye, Arvey, & Terpstra, 1977) yielded the same relative results in that highly qualified applicants were preferred over poorly qualified applicants, male applicants preferred over female applicants, and attractive applicants chosen over unattractive applicants. The discrepancy between these findings and the Heilman and Saruwatari (1979) results causes some confusion about the gender/attractiveness stereotype interaction. The present study will attempt to clarify the trends in this interaction. Specifically, in addition to replicating with different subjects and measures, we examined the extent to which past findings are replicable across stimulus persons.

Stimulus sampling presents a particularly relevant problem to researchers investigating attractiveness/gender stereotypes. In many studies a sample of only 3 to 6 photographs were used. Typically, one or two photos represented the mean for each level of attractiveness (high, moderate, or low). Because stimulus materials are usually chosen so that one can generalize beyond just the set of stimuli, the question arises as to whether three photos that represent the "mean" for each attractiveness level are representative of the domain of photos that can be considered low, moderate, and high in physical attractiveness.
Santa, Miller, and Shaw (1979) suggested that using only one sample of
stimulus materials not only provides restricted results but also limits the
experimenter in more profound explanations for the results. The use of
multiple stimuli can provide an experiment with greater power and increase
the generalizability of the stimuli (Kenny & Smith, 1980).

Fontenelle, Phillips, and Lane (1985) observed that one frequently
ignored aspect in the design of psychological research was the treatment of
stimuli as fixed effects. That is, experimenters have not recognized that
uncontrollable attributes of the stimuli could influence experimental
outcomes in unpredictable ways. Thus variance generated by different
stimuli would not be included in the statistical analysis. In ignoring the
effect due to stimuli, it is difficult to generalize any outcomes beyond the
sample of stimuli used. In examining the extent of this problem, Fontenelle
et al. (1985) reviewed articles published from January 1977 to May 1983
from the Journal of Applied Psychology. From this investigation, they found
only one study (Harris, 1977) that included stimuli as random effects.
However, 40 studies were found to treat stimuli as fixed effects and
generalize the results to the population of stimuli. Fontenelle et al. (1977)
suggested that the problem could be resolved by pairing each subject with a
unique stimulus. In doing so, the variance due to the subjects would be
confounded with the variance due to the stimuli making the error term in
the analysis of variance include any variation due to the stimuli. This
technique has been successfully employed by Maudlin and Laughery (1981) in
a study concerning facial recognition. It is proposed that this method is
also applicable to gender/attractiveness research.
Experiment 1

In preparation for experiment 2, the stimuli were selected and scaled. Research in both sex and physical attractiveness stereotypes has highlighted the fact that variations in appearance produce varying perceptions of an applicants attributes (aggressiveness, consideration, etc.). Adjective check lists have been used extensively to group or cluster masculine and feminine traits. Yet, surprisingly few studies have explored the accompanying traits, dispositions, attributes, that exist at different levels of attractiveness. The following pilot study explored the factors that might be present in subjects' evaluations of attributes belonging to a set of photographs.

Method

Subjects. Eighty Rice University undergraduates (43 females and 37 males) participated in this study in order to fulfill their course requirements.

Stimulus photographs. Photographs were sorted by the experimenter so that each subject would receive a range of photographs representing all levels of physical attractiveness. The pictures were limited to male and female Caucasians. In addition, selected photographs were constrained to a dress requirement; that is, both females and males had to appear in interview-appropriate clothing.

Procedure. Each subject received a packet of materials containing a series of rating dimensions (18 in all), and 20 black and white photographs of ten males and ten females. A total of 200 pictures were used in this study. Subjects were first asked to evaluate each of the 20 photographs according to the rating dimensions. Subjects were told that this study
investigated peoples' first impressions and how these impressions influenced raters decisions about a given stimulus person. No mention was made of the stimulus person's appearance. Eight raters were used for each stimulus set of pictures. Therefore, ten groups rated a distinct set of 20 photographs. An approximately equal number of ratings were obtained from both male and female subjects on each set of pictures.

**Measurement of dimensions.** A series of rating dimensions were selected from Miller (1970), Dipboye et al. (1977) studies. Each scale ranged from 1 to 7 with the negative pole represented by 7 and the positive pole a 1. (see Appendix A)

**Managerial ratings.** It is possible that the traits used in the first part of this experiment may not be managerially relevant. It is not necessarily easy to make the connection between "good" scores on this questionnaire and perceptions of successful managerial behavior. That is, does a picture that receives generally positive ratings also evoke perceptions that he/she possesses the necessary qualities to be a good manager? In a follow-up study, subjects were asked to rate 200 pictures used in the first part of the pilot research on perceived qualifications for managerial success (see Appendix B). Ten subjects participated in this experiment for course credit (5 males and 5 females).

**Results**

**Analysis of attractiveness attributes.** To understand the meaning and the relevance of the attributes, various factor analytic techniques were used. The first step involved estimating the number of factors using principle components analysis, then applying Harris-Kaiser or various other rotation methods to estimate the factor loadings. The criteria for
determining the final solution depended upon the consistency of results found across several approaches. We had no a priori theory to pre-select the number of factors. Therefore, exploratory factor analysis was applied to specify a plausible number of factors. Factor analysis was undertaken to explain the factors resulting from ratings on the male pictures and female pictures separately. Both results will be described simultaneously to simplify comparisons between these two groups, males and females. It should be remembered that the sample size for each group is 100. The preliminary principal components analysis yielded 3 eigenvalues whose values all exceeded 1.00. For males these values were 11.21, 2.71, and 1.71, and for females 8.38, 4.77, and 1.37. The results of the Harris-Kaiser rotation (power=.5) are given in Tables 1 and 2.
Table 1  
Rotated Orthoblique Factor Structure For Females Resulting from the  
Principal Components Analysis

<table>
<thead>
<tr>
<th>Variables</th>
<th>Factor 1</th>
<th>Factor 2</th>
<th>Factor 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Outgoing</td>
<td>93</td>
<td>11</td>
<td>-11</td>
</tr>
<tr>
<td>Popularity</td>
<td>96</td>
<td>15</td>
<td>-26</td>
</tr>
<tr>
<td>Sociability</td>
<td>93</td>
<td>9</td>
<td>-29</td>
</tr>
<tr>
<td>Social Skill</td>
<td>92</td>
<td>22</td>
<td>-22</td>
</tr>
<tr>
<td>Attractiveness</td>
<td>89</td>
<td>22</td>
<td>-20</td>
</tr>
<tr>
<td>Energy</td>
<td>82</td>
<td>38</td>
<td>0</td>
</tr>
<tr>
<td>Confidence</td>
<td>76</td>
<td>50</td>
<td>26</td>
</tr>
<tr>
<td>Pleasantness</td>
<td>81</td>
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<td>-50</td>
</tr>
<tr>
<td>Friendliness</td>
<td>74</td>
<td>11</td>
<td>-55</td>
</tr>
<tr>
<td>Competence</td>
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<td>91</td>
<td>24</td>
</tr>
<tr>
<td>Intelligence</td>
<td>16</td>
<td>92</td>
<td>32</td>
</tr>
<tr>
<td>Responsibility</td>
<td>-3</td>
<td>87</td>
<td>32</td>
</tr>
<tr>
<td>Orderliness</td>
<td>39</td>
<td>84</td>
<td>15</td>
</tr>
<tr>
<td>Ambitiousness</td>
<td>20</td>
<td>84</td>
<td>44</td>
</tr>
<tr>
<td>Tact</td>
<td>64</td>
<td>58</td>
<td>-27</td>
</tr>
<tr>
<td>Dominance</td>
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<td>39</td>
<td>89</td>
</tr>
<tr>
<td>Toughness</td>
<td>-20</td>
<td>35</td>
<td>88</td>
</tr>
<tr>
<td>Masculinity</td>
<td>-63</td>
<td>-5</td>
<td>62</td>
</tr>
</tbody>
</table>

Note. Values are multiplied by 100 and rounded to the nearest integer.
Table 2
Rotated Orthoblique Factor Structure For Males Resulting from the Principal Components Analysis

<table>
<thead>
<tr>
<th>Variables</th>
<th>Factor 1</th>
<th>Factor 2</th>
<th>Factor 3</th>
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<tbody>
<tr>
<td>Tough</td>
<td>94</td>
<td>21</td>
<td>20</td>
</tr>
<tr>
<td>Dominance</td>
<td>94</td>
<td>35</td>
<td>32</td>
</tr>
<tr>
<td>Masculinity</td>
<td>90</td>
<td>36</td>
<td>20</td>
</tr>
<tr>
<td>Confidence</td>
<td>79</td>
<td>62</td>
<td>55</td>
</tr>
<tr>
<td>Attractiveness</td>
<td>77</td>
<td>69</td>
<td>47</td>
</tr>
<tr>
<td>Energy</td>
<td>73</td>
<td>71</td>
<td>51</td>
</tr>
<tr>
<td>Friendliness</td>
<td>18</td>
<td>94</td>
<td>28</td>
</tr>
<tr>
<td>Pleasantness</td>
<td>28</td>
<td>91</td>
<td>55</td>
</tr>
<tr>
<td>Sociability</td>
<td>58</td>
<td>90</td>
<td>39</td>
</tr>
<tr>
<td>Social Skill</td>
<td>62</td>
<td>83</td>
<td>51</td>
</tr>
<tr>
<td>Tact</td>
<td>24</td>
<td>77</td>
<td>70</td>
</tr>
<tr>
<td>Outgoing</td>
<td>76</td>
<td>78</td>
<td>25</td>
</tr>
<tr>
<td>Popularity</td>
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<td>80</td>
<td>35</td>
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<tr>
<td>Intelligence</td>
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<td>34</td>
<td>93</td>
</tr>
<tr>
<td>Responsibility</td>
<td>28</td>
<td>35</td>
<td>92</td>
</tr>
<tr>
<td>Competence</td>
<td>37</td>
<td>44</td>
<td>92</td>
</tr>
<tr>
<td>Orderliness</td>
<td>31</td>
<td>44</td>
<td>90</td>
</tr>
<tr>
<td>Ambitiousness</td>
<td>47</td>
<td>46</td>
<td>87</td>
</tr>
</tbody>
</table>

Note. Values are multiplied by 100 and rounded to the nearest integer.
In examining the factor structure for females, one might formulate some preliminary interpretations. For factor 1, the variables which showed the highest correlations tended to be traits that formed a popularity, social skill factor. It is interesting to note that physical attractiveness also loads fairly high on this dimension, while degree of masculinity has a high negative correlation. Factor 2 yields correlations with variables that might form a competence or responsibility dimension. Factor 3 is highly correlated with variables that might represent a toughness cluster. In this factor, physical attractiveness has a negative correlation but not as high as expected. However, pleasantness and friendliness are negatively correlated with this factor. For the male factor structure, factor 1 could represent a toughness/popularity dimension. In contrast to the female factor structure, this dimension does not include items such as friendliness and pleasantness. More likely this dimension is more similar to factor 3 of the female factor structure. Factor 2 was most clearly identified with pleasant/friendly traits (possibly a social skill dimension). Although physical attractiveness is associated with factor 2, an examination of the reference structure (semipartial correlations) showed that attractiveness loaded to a larger degree on factor 1. Factor 3 is most similar to factor 2 for females and again might be described as a competence dimension.

From this analysis, the results were particularly compelling for the physical attractiveness variable. For females, physical attractiveness was highly associated with the popularity, social skill dimension. However for males, attractiveness was associated with the tough/dominant factor. An initial conclusion might be that attractiveness for males clusters with variables associated with stereotyped masculine attributes. In addition,
attractiveness had fairly low correlations with the competence factor for both males and females.

The findings from the other techniques showed a similar pattern of results. The correspondence between these methods was fairly high. The number of factors that evolved were the same for each approach and the loadings were similar. Thus, it might be fairly safe to conclude that three factors could best represent these variables.

**Analysis of managerial qualifications.** The mean on the managerial qualifications variable was calculated on each of the 200 pictures for the ten raters. A correlation matrix with the qualifications variable and the mean on the other 18 variables was computed for both the male and the female pictures (see Table 3).
Table 3
Correlations for Managerial Qualifications for 18 Variables

<table>
<thead>
<tr>
<th>Variables</th>
<th>Males</th>
<th>Females</th>
</tr>
</thead>
<tbody>
<tr>
<td>Competence</td>
<td>.66</td>
<td>.51</td>
</tr>
<tr>
<td>Intelligence</td>
<td>.47</td>
<td>.38</td>
</tr>
<tr>
<td>Friendliness</td>
<td>.37</td>
<td>.29</td>
</tr>
<tr>
<td>Social Skill</td>
<td>.64</td>
<td>.56</td>
</tr>
<tr>
<td>Ambitiousness</td>
<td>.69</td>
<td>.47</td>
</tr>
<tr>
<td>Toughness</td>
<td>.43</td>
<td>.09*</td>
</tr>
<tr>
<td>Responsibility</td>
<td>.58</td>
<td>.32</td>
</tr>
<tr>
<td>Dominance</td>
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<td>.17</td>
</tr>
<tr>
<td>Sociability</td>
<td>.58</td>
<td>.48</td>
</tr>
<tr>
<td>Orderliness</td>
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<td>.54</td>
</tr>
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<td>Popularity</td>
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<td>.57</td>
</tr>
<tr>
<td>Pleasantness</td>
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<td>.43</td>
</tr>
<tr>
<td>Confidence</td>
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<td>.56</td>
</tr>
<tr>
<td>Tact</td>
<td>.54</td>
<td>.49</td>
</tr>
<tr>
<td>Outgoing</td>
<td>.57</td>
<td>.48</td>
</tr>
<tr>
<td>Masculinity</td>
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<td>-.31</td>
</tr>
<tr>
<td>Energy</td>
<td>.57</td>
<td>.54</td>
</tr>
<tr>
<td>Attractiveness</td>
<td>.64</td>
<td>.65</td>
</tr>
</tbody>
</table>

Note. Correlations are based on 100 pictures for each sex.
* p > .10; all other p's < .05.
Some notable differences between the correlations for males and females should be examined. For example, every variable correlates more highly with managerial qualifications for males than it does for females. Interestingly, physical attractiveness is highly associated with perceived managerial qualifications for both sexes. The three traits that might be considered most stereotypically masculine (dominance, toughness and masculinity), had the lowest correlations with perceived managerial qualifications for females. These results might lead one to suspect that physical attractiveness influences raters evaluations of perceived qualifications for both sexes. Moreover, the negative correlation suggests that if women appear masculine, they are rated lower on perceived managerial qualifications.

Discussion

The first experiment demonstrated that when subjects were given a set of photographs that varied by sex and attractiveness, they perceived differences in the attributes belonging either to males or females. While males were generally perceived as more masculine and dominant, females were perceived as more popular and socially skilled. These results suggest that stereotypic evaluations will still be made by subjects when given photographs of individuals.

The factor analysis conducted on the trait ratings showed that different clusters of attributes formed depending on whether the photograph was a male or a female. In general, traits for females clustered into three factors: a sociability factor, a competence factor, and a masculinity factor. Females were rated as more sociable and were also perceived as more attractive as was supported by the physical attractiveness trait loading.
highest on the sociability factor. Similarly, traits for males grouped into three factors. However, these three factors (masculinity, sociability, and competence-intelligence) were composed of different sets of traits (see Table 3). The differences between the factor loadings for males and females are interesting mainly when we consider the factor loading of the physical attractiveness attribute. For males, it was observed that attractiveness was more likely to be grouped with traits that were stereotypically masculine. Likewise, for females, physical attractiveness was associated with stereotypical feminine attributes. These findings might lend support to Heilman's (1983) observations that attractiveness enhances stereotypic male or female attributes.

Another aspect of this experiment investigated whether the attributes that were previously rated were also seen as characteristics that led to successful managerial performance. Indeed, it was found that all of these attributes were managerially relevant except for the toughness and masculinity attributes for females. These findings suggest that a woman does not have to be "like a man" in her perceived attributes (as put forth by Spence & Helmrich, 1972) in order to receive favorable evaluations for the managerial position.
Experiment 2

In this experiment we sought to examine the influence of attractiveness on personnel decisions. The lack of fit model suggests that attractiveness is associated with certain traits. Evaluations of an applicant's performance result from the ratio of attractiveness traits to the traits associated with successful performance on the job. Presumably, attractive applicants possess more stereotypic traits than unattractive applicants. Thus, attractive males should be perceived as more masculine and attractive females as more feminine. Furthermore, attractive males and females should be evaluated more favorably for sex-congruent positions than their unattractive counterparts. The lack of fit model has been tested for females applying for masculine positions (cf. Heilman & Saruwatari, 1979), but not for males applying for feminine positions. Therefore, an extension of Heilman and Saruwatari's study would be an investigation of the relation between attractiveness and job-type for male applicants.

To accomplish this, subjects were given several resumes. Attached to the resumes were applicant photographs (from Experiment 1) that varied in attractiveness. Subjects reviewed these applicants for both a masculine and a feminine managerial position. Subjects rated the applicants on their suitability for each position according to a variety of dimensions.

We addressed the unresolved tenet of the lack of fit model by examining the effects of applicant sex, attractiveness, and sex congruency of the job on subjects' personnel decisions. Further, by using the traits associated with the photographs we attempted to elaborate on the factors that might play a role in these decisions.
Method

Subjects. The subjects were 90 undergraduate students (45 males, 45 females) who participated for course credit.

Pictures. The experimenter selected 180 out of 200 black and white yearbook photographs used in Experiment 1. The male and female pictures were divided into six groups ranging from highly attractive to unattractive photographs. Pictures that were on the border of any two groups were discarded. A total of 15 pictures for each of the six levels of attractiveness for each sex were retained. Therefore, 90 male and 90 female pictures created a sample of 180 stimuli. The means and standard deviations for three levels of attractiveness for males and females are shown in Figure 2.

![Mean Attractiveness Ratings](image)

**Figure 2.** Mean attractiveness ratings as a function of attractiveness levels.
Design

The design was a $2 \times 2 \times 3$ factorial with order of rating job descriptions (hardware or jewelry) manipulated as the between subjects variable and managerial job type (hardware or jewelry), applicant sex (male or female) and applicant attractiveness (low, moderate, or high), manipulated as within-subjects variables. Attractiveness was manipulated as a within-subjects variable to simulate the decision process involved in the typical selection task.

Subjects were randomly assigned to the order condition, 22 women and 23 men when the hardware job was presented first, and 23 women and 22 men when the fine jewelry manager job was presented first. Each subject received 12 randomly selected photographs one from each of the 12 groups of attractiveness and sex so that 15 sets of stimuli were created. Six subjects rated each set of stimuli.

Job description. A brief one-page description of the activities and the traits required for the job was provided (See Appendix C). The job was either a "Manager of the Jewelry Department" or a "Manager of the Hardware Department". In selecting these two jobs an attempt was made to make the job-type manipulation (masculine or feminine) as strong as possible. The retail trade industry provided two managerial jobs that were not only sex-role oriented but also relatively equivalent in status and responsibility.

Embedded in the job descriptions were ten adjectives that were pretested in Experiment 1. T-tests between adjective pairs revealed that there were significant differences between the traits perceived to be masculine and the traits perceived to be feminine. The female traits chosen were friendliness, popularity, sociability, tactfulness, orderliness, socially
skilled, and pleasantness ($p < .05$). The male traits selected were toughness and dominance ($p < .01$). Additionally, several synonyms were placed in the job descriptions so that an equal number of traits appeared for each job. Female traits were presented in the fine jewelry manager job description while male traits were placed in the hardware department manager description. All traits appeared in bold print.

**Resumes.** Each subject received 12 applications. Each applicant's resume was described on a standard resume form (see Appendix D) which included demographic characteristics, educational qualifications (school, GPA, class rank), college major and minor, college honors and activities, job experience, statement of career objectives, and the names of references.

The qualifications of the candidates were relatively equivalent with all applicants being recent college graduates, with educational qualifications within a small range, and appropriate major and minor interests. In addition, all applicants had an athletic interest, received similar college honors, and had work experience in two relevant and one irrelevant job for the retail trade area. These qualifications were judged equivalent in a pilot study ($N=20$). Given only initials for the first name, subjects perceived male applicants (a mean rating of 2.9) and female applicants (a mean rating of 2.76) as relatively equal in their suitability for either the fine jewelry manager or the hardware manager positions on a scale from 1 to 7. Therefore, sex of the applicants was manipulated by depicting half or 6 of the candidates as male and the other half as female and randomly assigning resumes to 6 male and 6 female photographs.

**Procedure.** Subjects were tested in groups of up to 10. At the beginning of the experiment, the experimenter read instructions describing the study
as an investigation of the selection decision process. It was explained that subjects would first read a job description and then evaluate the qualifications of applicants based on the match between application information and the job description requirements. All applicants recently graduated from school and had been pre-screened for acceptability of educational and background qualifications. The experimenter said that these applicants were being selected for a managerial trainee program. Subjects were told to first look over the pool of applicants assigned to them, and then to complete the personnel selection ratings in any order they liked. After completing ratings for applicants for the first job, subjects were given a second job description (either hardware of fine jewelry job depending on the order condition) and were told that Smith's department store had another opening for a manager in a different department for which these same applicants were being considered. Subjects were not told earlier that they would receive another job description. Subjects then rated these applicants for the second position.

Subjects received packets containing instructions, a job description, copies of 12 application blanks, and qualification rating forms for the position given. Later subjects were given a second job description, 12 qualification rating forms for this position, a summary rating form, an adjective rating scale, and a trait rating form. After completing all rating forms, the packets were collected.

**Manipulation of applicant attractiveness.** The physical attractiveness of the applicants was manipulated by attaching yearbook pictures of Caucasian students to the resumes. These pictures were found in Experiment 1 to represent a broad range of attractiveness. Twelve pictures
were needed, 2 for each of the 6 possible combinations of sex and attractiveness. Thus, 15 differing sets of stimuli with 12 pictures in each were rated.

**Dependent measures.** After reviewing the resumes, subjects evaluated the applicant for each managerial position on several Likert-type scales (see Appendix E). First, subjects indicated their willingness to hire the applicant on a 7-point scale ranging from "definitely would not recommend hiring" (1) through "definitely would recommend hiring" (7). Second, they responded to the question "All in all, how qualified do you think this applicant is for the position?" according to highly qualified (1) to highly unqualified (7). Subjects were then asked to assume that they had hired the applicant and to state a starting salary given choices from $16,000 to $19,000 in increments of $500. Subjects were also asked to rate the applicants on expectations of successful performance on the job from "very successful" (1) to "very unsuccessful" (7). Raters were also asked to define their level of confidence in their decisions from "highly confident" (1) to "highly unconfident" (7).

**Summary rating form.** After subjects rated applicants for both positions, they were asked to indicate the one applicant they would choose for each position if they had to select only one. They were also asked to indicate what they believed the hypothesis of the experiment was in order to examine the possible effects of demand characteristics (see Appendix F).

**Bipolar adjective scale.** A five item bipolar adjective scale was completed by each subject (see Appendix G). These five items were designed to test the strength of the sex/attractiveness manipulations. From the factor analysis in Experiment 1, four sets of bipolar adjectives
were selected. The adjectives were selected by examining the factor structures on the factor analysis carried out independently on the male and female stimuli and noting which adjectives had the highest factor loadings. For example, for females, the highest factor loading was the sociable-unsociable adjective pair. Thus, this adjective pair was one that was selected. In addition, subjects completed a 7-point scale concerning the applicant's attractiveness from 1 indicating an attractive evaluation to 7 indicating an unattractive evaluation.

Trait rating form. Subjects were given a list of 20 adjectives that had appeared in the hardware and jewelry manager job descriptions. They were instructed to place the appropriate adjectives under the heading of "fine jewelry manager" or "hardware manager" in order to assess the scrutiny with which subjects read the job descriptions. Finally, subjects indicated the percentage of women they believed were presently occupying the position of fine jewelry manager or hardware manager (see Appendix H).

Results

Manipulation checks. The trait response score was computed by counting the total number of correct responses for each subject and subtracting 10 (the chance level of correct responses across both positions) to yield a score for each subject. These scores were averaged and converted to a percentage score. From the trait rating form, subjects recalled a mean of 88.96% (trait response percentage) of the adjectives from the job descriptions.

In addition, an analysis of variance was performed on the percentage of women believed to be currently employed as the manager of either the fine jewelry department or the hardware department. The means on the
percentages were 65.38 and 34.31 for the fine jewelry and hardware positions respectively. The differences between the percentages were statistically significant ($F(1,178) = 76.98, p < .0001$).

From the bipolar adjective form, an analysis of variance was computed for ratings on the "highly attractive-highly unattractive" scale. Subjects' ratings in this experiment fell into relatively the same attractiveness levels as those scaled in Experiment 1 ($F(2,176) = 375.44, p < .0001$).

Thus, both the manipulations of sex-typing of the job and attractiveness were perceived correctly.

**Analysis of personnel decisions.** For each applicant, subjects responded to a variety of questions concerning the suitability of the applicant for the job. A $2 \times 2 \times 2 \times 3$ analysis of variance was performed on subjects' ratings of applicants' qualifications. Because of the significant applicant sex x order interaction, only the first set of qualification ratings for each subject were used. Thus, in the following analyses the design was collapsed to a $2 \times 2 \times 3$ with job type (jewelry or hardware) manipulated as the between-subjects factor and applicant sex (male or female) and applicant attractiveness (high, moderate, or low) manipulated as within-subjects variables.

Because three of the raters' decisions (hiring, qualifications, and success expectancy) concerned the applicants' suitability and employed similar 7-point Likert scales, they were likely to be somewhat intercorrelated ($r = .82, p < .01$). Therefore, these ratings were averaged and an analysis of variance was computed on the composite score. An analysis of variance was performed on the composite of subjects' ratings of applicants' qualifications, hiring, and success expectancy. A significant
main effect was found for each of the three independent variables. Applicants for the fine jewelry department manager were evaluated more favorably (M = 2.87) than applicants for the hardware department manager (M = 3.30), F(1, 88) = 10.54, p < .01. Male applicants were evaluated more favorably (M = 2.98) than female applicants (M = 3.20), F(1, 88) = 11.35, p < .001. Highly attractive candidates were evaluated more favorably (M = 2.89) than moderately attractive candidates (M = 3.09), who in turn were evaluated more favorably than unattractive candidates (M = 3.28), F(2, 176) = 15.30, p < .0001.

In addition to the main effects, two significant interactions were found. A visual inspection of Figure 3 indicates that female applicants and male applicants received different ratings depending on the job for which they were being considered. That the job-type x applicant sex interaction was statistically significant (F(1, 88) = 9.34, p < .005) supports this observation. Males were rated as significantly more qualified for the manager of the hardware department (M = 3.10) than were the females (M = 3.50). However, the female applicants were seen as no more qualified (M = 2.88) for the jewelry job than were the male applicants (M = 2.86). Thus, males were rated as significantly more suitable for the manager of the hardware department than females, however males and females were seen as almost equally suitable for the manager of the fine jewelry department.
Figure 3. Composite personnel ratings for males and females as a function of the type of job.

A significant applicant attractiveness x applicant sex interaction was also found ($\chi^2(2, 176) = 3.02, p < .05$). As shown in Figure 4, attractive males were rated as more qualified ($M = 2.67$) than attractive females ($M = 3.10$), $F(1, 178) = 10.42, p < .01$. However, the ratings of the moderately attractive males ($M = 3.03$) did not significantly differ from the evaluations of the moderately attractive females ($M = 3.15$), ($F < 1$). Similarly, the mean rating of unattractive males ($M = 3.23$) and of unattractive females ($M = 3.32$) did not significantly differ ($F < 1$). The attractiveness effect was more pronounced for the male applicants than for the female applicants.
Figure 4. Composite personnel ratings for males and females as a function of attractiveness level.

Analysis of salary ratings

The same main effects were found for salary decisions as were found for the composite ratings. Higher salaries were assigned to applicants for the manager of the fine jewelry department ($M = 3.78$) than to the manager of the hardware department ($M = 3.27$); $F(1,88) = 3.80, p < .06$; to a male applicant ($M = 3.64$) than to a female applicant ($M = 3.41$), $F(1,88) = 11.30, p < .005$; and to a highly attractive candidate ($M = 3.67$) and moderately attractive candidate ($M = 3.50$) than to an unattractive candidate ($M = 3.40$), $F(2,176) = 7.43, p < .001$. A significant job-type x applicant sex interaction ($F(1,88) = 7.09, p < .01$) yielded results in line with earlier findings. Subjects gave higher salaries to males ($M = 3.48$) than to females ($M = 3.07$) for the hardware manager position. For the fine jewelry manager, salary
decisions for each sex differed only slightly (for males, $M = 3.81$; for females, $M = 3.76$). Overall, this analysis revealed that male applicants being considered for the fine jewelry manager positions were assigned the highest starting salaries.

**Analysis of confidence ratings.** In order to assess the confidence subjects had in their decisions on "paper people", an analysis of variance was conducted on the ratings from the "highly confident" to "highly unconfident" scale. A main effect for applicant attractiveness ($F(2,176) = 4.94, p < .01$) suggested that subjects felt more confident in their decisions concerning highly attractive applicants ($M = 2.55$) than moderately attractive candidates ($M = 2.65$) and unattractive candidates ($M = 2.71$). The relatively high means on this rating scale suggest that subjects were not cautious or tentative in their ratings despite the absence of a face-to-face interaction.

**Analysis of hiring choice.** Subjects were asked to rate a number of job candidates to enhance the realism of this experiment. Because hiring decisions require the manager to choose "the best" applicant for the job, subjects were asked to choose one applicant for each position if there were only one opening to be filled.

In Table 4, the frequencies of the candidates that were chosen in each experimental condition are shown. Chi-square analyses indicated that the most frequently chosen applicant for the manager of the hardware department was the highly attractive male candidate who was selected by 42 subjects. If neither sex nor attractiveness influenced raters' decisions then one would expect that applicants in each category would be chosen with equal frequency. However, the number of applicants choosing a highly
attractive male candidate (f=42), a moderately attractive male (f=20), and an unattractive male (f=19) candidate differed significantly from frequencies expected by chance (f=27), $\chi^2(2) = 12.52, p < .01$. Likewise, male applicants were selected far more often than female applicants, $\chi^2(1) = 57.6, p < .001$.

For the manager of the fine jewelry department, the highly attractive female candidates were the most preferred applicant, chosen by 36 subjects. The frequencies with which a highly attractive female (f=36), a moderately attractive female (f=19), and an unattractive female (f=7), were chosen differed significantly from those expected by chance (f=20.67), $\chi^2(2) = 20.53, p < .001$. However, in this analysis the frequency with which subjects chose a highly attractive male and a moderately attractive male did not differ significantly from the frequency with which subjects chose the moderately attractive female ($\chi^2(1) = 1.25, p > .10$). The unattractive female was not preferred over the highly attractive male, the moderately attractive male, or the unattractive male. For the manager of the fine jewelry department, female applicants were chose more frequently (f = 62) than male applicants (f = 28), $\chi^2(1) = 12.84, p < .001$. In this analysis overall, attractive applicants were the most preferred applicants. In addition, applicants applying for the sex-congruent job were also selected most frequently.
### Table 4
Frequencies of Subjects' Hiring Preferences
For Each Job Type

<table>
<thead>
<tr>
<th>Applicant Sex</th>
<th>Attractiveness level</th>
<th>Job type</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Hardware</td>
</tr>
<tr>
<td>Female</td>
<td>Highly attractive</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>Moderately attractive</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Unattractive</td>
<td>4</td>
</tr>
<tr>
<td>Male</td>
<td>Highly attractive</td>
<td>42</td>
</tr>
<tr>
<td></td>
<td>Moderately attractive</td>
<td>20</td>
</tr>
<tr>
<td></td>
<td>Unattractive</td>
<td>19</td>
</tr>
</tbody>
</table>

**Note.** \( n = 90 \) for each job type.

**Mediating factors.** The principal hypotheses suggested that attractiveness would have similar consequences for both sexes regardless of the job type. However, it was also predicted that applicants would be rated more favorably for sex-congruent positions. The nature of the job-type \( \times \) applicant sex interaction may be further developed by examining the factors typically associated with males and females (the stereotypic masculine and feminine traits from Experiment 1). The correlations of these previously rated traits with the personnel decisions will provide an indication of the traits or factors that mediate these decisions. The correlations by job type and applicant sex for the composite ratings are presented in Table 5.
Table 5
Correlations of Traits with Composite Personnel Ratings
by Sex and Position

<table>
<thead>
<tr>
<th>Trait</th>
<th>FH</th>
<th>MH</th>
<th>FJ</th>
<th>MJ</th>
</tr>
</thead>
<tbody>
<tr>
<td>Competence</td>
<td>.03</td>
<td>.13</td>
<td>.17</td>
<td>.45</td>
</tr>
<tr>
<td>Intelligence</td>
<td>.06</td>
<td>.03</td>
<td>.14</td>
<td>.40</td>
</tr>
<tr>
<td>Friendliness</td>
<td>.01</td>
<td>.22</td>
<td>.27</td>
<td>.28</td>
</tr>
<tr>
<td>Social Skill</td>
<td>.14</td>
<td>.32</td>
<td>.27</td>
<td>.39</td>
</tr>
<tr>
<td>Ambitiousness</td>
<td>.05</td>
<td>.20</td>
<td>.06</td>
<td>.50</td>
</tr>
<tr>
<td>Toughness</td>
<td>.10</td>
<td>.31</td>
<td>-.04</td>
<td>.35</td>
</tr>
<tr>
<td>Responsibility</td>
<td>-.06</td>
<td>.06</td>
<td>-.02</td>
<td>.36</td>
</tr>
<tr>
<td>Dominance</td>
<td>.23</td>
<td>.30</td>
<td>.01</td>
<td>.40</td>
</tr>
<tr>
<td>Sociability</td>
<td>.07</td>
<td>.32</td>
<td>.33</td>
<td>.39</td>
</tr>
<tr>
<td>Orderliness</td>
<td>.15</td>
<td>.13</td>
<td>.09</td>
<td>.38</td>
</tr>
<tr>
<td>Popularity</td>
<td>.05</td>
<td>.32</td>
<td>.29</td>
<td>.41</td>
</tr>
<tr>
<td>Pleasantness</td>
<td>.02</td>
<td>.20</td>
<td>.32</td>
<td>.38</td>
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<tr>
<td>Confidence</td>
<td>.10</td>
<td>.35</td>
<td>.17</td>
<td>.49</td>
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<tr>
<td>Tact</td>
<td>-.08</td>
<td>.25</td>
<td>.09</td>
<td>.29</td>
</tr>
<tr>
<td>Outgoing</td>
<td>.09</td>
<td>.30</td>
<td>.25</td>
<td>.43</td>
</tr>
<tr>
<td>Masculinity</td>
<td>.08</td>
<td>.39</td>
<td>-.20</td>
<td>.28</td>
</tr>
<tr>
<td>Energy</td>
<td>.10</td>
<td>.36</td>
<td>.24</td>
<td>.36</td>
</tr>
<tr>
<td>Physical</td>
<td>.03</td>
<td>.34</td>
<td>.32</td>
<td>.42</td>
</tr>
<tr>
<td>Attractiveness</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Managerial Qualifications</td>
<td>.15</td>
<td>.16</td>
<td>.13</td>
<td>.48</td>
</tr>
</tbody>
</table>

Note   FH - Females applying for hardware position
        MH - Males applying for hardware position.
        FJ - Females applying for fine jewelry position.
        MJ - Males applying for fine jewelry position.

For r's > .205, p < .05.

For females applying for the hardware position, the highest correlation
with personnel decisions was the dominance trait rating. However, for
males, confidence, masculinity, energy, and physical attractiveness were the most highly correlated traits with the personnel ratings. For female applicants for the manager of the fine jewelry department, the traits with the highest correlations were sociability, pleasantness, and physical attractiveness. For the males, the traits included competence, ambitiousness, confidence, and perceived managerial qualifications.

These analyses indicated that subjects considered different qualities important depending on the position being evaluated. In general, for the manager of the hardware department, subjects preferred applicants who were perceived to possess "typical" masculine traits even if the applicant was female. In contrast, if the manager of the fine jewelry department was female, social competence skills were preferred. However, if the applicant was male, ambitiousness and confidence were viewed as necessary and sufficient qualifications.

Adjective rating scale. Additional support was found for the presence of mediating factors in personnel decisions by testing the differences between male and female applicants on the bipolar adjective ratings. These adjectives were employed to test subjects gender-related perceptions of applicants. In general, subjects ratings supported stereotypical sex-role perceptions. Female applicants, relative to male applicants were rated as more submissive and soft. On the other hand, female candidates were judged more sociable. Males and females were rated almost equal in popularity. The mean ratings on the bipolar adjectives for male and female applicants are reported in Table 6.
Table 6

Comparison of Male and Female Applicants on Bipolar Adjectives

<table>
<thead>
<tr>
<th>Bipolar adjectives</th>
<th>Male</th>
<th>Female</th>
<th>E</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tough--soft</td>
<td>3.23</td>
<td>3.89</td>
<td>71.0**</td>
</tr>
<tr>
<td>Popular--unpopular</td>
<td>3.25</td>
<td>3.13</td>
<td>2.46</td>
</tr>
<tr>
<td>Sociable--unsociable</td>
<td>3.09</td>
<td>2.89</td>
<td>10.98*</td>
</tr>
<tr>
<td>Dominant--submissive</td>
<td>3.10</td>
<td>3.64</td>
<td>48.76**</td>
</tr>
</tbody>
</table>

Note. The first adjective in each pair was scaled a 1 and the second, 7. *p < .01, **p < .0001.

Subjects also perceived differences among the attractiveness groups on the bipolar adjectives. For the popular-unpopular, sociable-unsociable adjective pairs, highly attractive applicants were rated more favorably. However, for the dominant-submissive adjective pair, attractive males were rated as more dominant than moderately attractive and unattractive males. Ratings for female applicants on this dimension did not significantly differ. For the tough-soft adjective pair, highly attractive males received higher ratings than either moderately attractive or unattractive males. Highly attractive females received lower ratings than either moderately attractive or unattractive females. Thus, it appears that subjects' traditional sex-role stereotypes might influence their perceptions of the applicants and consequently their personnel decisions.
Random effects analyses. Using procedures described by Clark (1973), two sets of F-ratios were computed on the applicant suitability composite. In the first set of F-ratios (F1), which we have already reported, subjects were treated as a random effect and all other factors were treated as fixed effects. This analysis allows us to draw conclusions regarding the generalization of the effects to the population of subjects. To generalize to the population of stimuli for the sample of subjects we computed another F-ratio, F2 in which stimuli were treated as random effects and subjects as fixed effects. Thus, pictures were analyzed as one usually analyzes subjects in a mixed ANOVA design. The F1 and F2 values are shown in Table 7. However, even if both F1 and F2 are significant there still might be doubt as to whether the effect is due to sampling error (Fontenelle et al., 1985).

As such, it is necessary to consider both subjects and stimuli as random effects thereby broadening our generalizability to both populations simultaneously.

Table 7

<table>
<thead>
<tr>
<th>Effect</th>
<th>F1</th>
<th>F2</th>
<th>min F*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Job-type</td>
<td>10.54</td>
<td>13.75</td>
<td>5.96*</td>
</tr>
<tr>
<td>Job-type x sex</td>
<td>9.34</td>
<td>8.18</td>
<td>4.36*</td>
</tr>
<tr>
<td>Attractiveness</td>
<td>15.30</td>
<td>13.41</td>
<td>7.15</td>
</tr>
</tbody>
</table>

Note. *p < .05, all other p's < .01,
From the F1 and F2 values, we computed the min F' (Clark, 1973) for effects in which both F1 and F2 were significant. These analyses revealed three significant effects: a main effect of job-type (min F'(1, 96) = 5.96, p < .05), a main effect of attractiveness (min F'(2, 158) = 7.15, p < .01) and a job-type x sex interaction (min F'(1, 79) = 4.36, p < .05). Thus, we can say that if a new sample of subjects were given a new sample of pictures then we are still likely to find the main effects of job-type, attractiveness, and a job-type x applicant sex interaction.

**Discussion**

Experiment 2 provided evidence that males and females would receive higher ratings when applying for sex-congruent managerial positions. That is, male applicants were preferred for the hardware position. However, little difference was observed in personnel decisions between males and females applying for the fine jewelry position. In addition, highly attractive males were favored over all other applicants.

Composite personnel ratings failed to demonstrate a preference for selecting females for the fine jewelry position. However, these findings were not supported in all analyses. For example, subjects were asked to choose only one applicant for each position. From this perspective, raters selected applicants that were not only highly attractive but also sex-congruent with the managerial positions under consideration. As Dipboye et al. (1977) noted, forcing raters to select one applicant from a comparison group produces a more realistic evaluation process. Therefore, applicants who were perceived as highly attractive and also applied for in-role positions were selected more often.
Trait ratings from the Experiment 1 were re-examined in order to assess the factors that might mediate raters decisions. The mean trait ratings from Experiment 1 were matched to the personnel ratings from the corresponding pictures in Experiment 2. Several results should be discussed in greater depth. First, if female applicants for the hardware position were perceived as possessing stereotypical masculine attributes then they received higher personnel ratings. In contrast to managerial success ratings from Experiment 1, the attributes toughness and dominance were perceived as necessary traits for the female manager for this position. However, for male applicants for the hardware position, correlations between trait values and personnel ratings were approximately equivalent across all attributes.

For females applying for the fine jewelry manager position, stereotypical feminine qualities (sociability, pleasantness) were desired by raters. For males applying for the fine jewelry manager position, the relation between trait ratings and composite personnel ratings were stronger than for any other group. One possible explanation for the results could be that subjects considered the fine jewelry manager position a higher status occupation. Subjects assigned higher starting salary to the manager of the fine jewelry department than to the manager of the hardware department. Although the correlations were higher for males than females for the fine jewelry position, it must be remembered that the personnel ratings were similar. It seems that perhaps the feminine nature of this position diluted raters preference for male applicants. Thus, males and females received ratings that did not significantly differ for this position.
General Discussion

The present research focused on both sex stereotyping and physical attractiveness stereotyping and their combined effect on personnel decisions. In addition, we investigated the influence of such stereotyping on the differential evaluation of women for management positions. Although many explanations may be used to describe the process by which stereotyping leads to discrimination, we have drawn mainly from one model, the lack of fit model. We will examine the predictions of the lack of fit model and the evidence that we have found to support and/or negate these predictions.

The lack of fit model generally predicts that attractiveness serves to enhance the gender-related attributes of applicants resulting in positive evaluations for applicants applying for sex-congruent positions. More specifically, the lack of fit model predicts that attractiveness is beneficial for both males and females when applying for positions suited to their sex. Attractive applicants will be favored over unattractive applicants because they are perceived to possess more stereotypic traits. Attractive women will be rated inferior to unattractive women for masculine positions. Finally, attractive men should receive lower evaluations than either unattractive men or women for a feminine position.

Consistent with these predictions, we found evidence that male applicants were preferred to female applicants for the hardware position. Also, attractive applicants were favored over unattractive applicants for both positions. However, in contrast to Heilman and Saruwataři (1979) and Cash et al. (1977), we did not observe any significant tendency for subjects to select unattractive females over attractive females for the masculine
managerial position. For example, attractiveness and suitability for the hardware position were essentially independent of one another. Furthermore, if unattractive females were rated superior to attractive females then we would expect an interaction between applicant sex, attractiveness, and job type. This interaction was not statistically significant. To continue, attractive males received higher ratings than unattractive males. Surprisingly, for the feminine position, attractive males were rated no less favorably than females.

One explanation to account for the differences between the predictions of the lack of fit model and our experimental results lies in the varying experimental procedures. In exploring this explanation, we will outline the methodological procedures employed by Heilman and Saruwatari (1979), the procedures used in Experiment 2, and the implications of the variations between these studies.

In Heilman and Saruwatari's (1979) study, each subject evaluated four applications. In Experiment 2, each subject rated twelve applications. Heilman and Saruwatari's study employed a sample of 8 pictures, whereas experiment 2 used 180 pictures. A managerial and a nonmanagerial position were evaluated in the Heilman and Saruwatari study. In contrast, Experiment 2 required subjects to evaluate applicants for feminine and masculine managerial positions. Heilman and Saruwatari described each position in terms of the general job responsibilities. In Experiment 2, we described the positions in terms of the specific job responsibilities and the individual attributes required by a manager in each position.

As noted previously, in the selection decision process the interviewer usually chooses between a number of qualified applicants for a given
position. In Experiment 2, we attempted to make this process as realistic as possible by presenting subjects with twelve potentially qualified applicants. This methodological difference is important because it makes the decision process involve a range of applicants as would most likely be seen outside the laboratory setting.

Closely related to the issue of realism of the selection process is the issue of stimulus sampling. It is important to realize that with more applications, there is also a greater number of photographs accompanying the applications. In Experiment 2, we selected photographs that represented the whole gamut of attractiveness. Unlike previous studies, the photographs in this study were treated as points on the continuum of the attractiveness scale. Therefore, each subject reviewed 12 photographs representing the attractiveness continuum.

One compelling argument for designing an experiment in this manner is that subjects are probably less likely to be aware initially of great attractiveness differences between the applicants. In setting up the experiment with only highly attractive or highly unattractive applicants, one is increasing the probability of obtaining greater effects due to attractiveness.

Hellman and Saruwatari (1979) used photographs that were randomly selected from a pair representing the same sex and attractiveness levels. It is possible that in using only two photographs, individual differences of the photographs might account for some of their results. We tried to diminish any individual differences between stimuli by including a wide array of pictures. In addition, we analyzed the results taking into consideration the random selection of both subjects and stimuli. This analysis allows us to
make more general claims concerning the effects of attractiveness outside our particular sample of pictures. Therefore, we did not just select from one out of a pair of stimuli but from one out of 30 possible photographs representing a given sex and attractiveness level.

As was mentioned previously, physical attractiveness ratings are somewhat subjective ratings. In addition, applicants' suitability for the job may depend on many other perceived attributes besides physical attractiveness. In analyzing each set of stimuli used in the present study, it was found for one set of pictures (out of 15 possible sets) that attractive women were rated inferior to unattractive women for the hardware position (n=3). A possible follow-up study might administer this set of stimuli using the same experimental procedure to a greater number of subjects. If Heilman and Saruwatari's (1979) results occur, then it may be interpreted that the selection of stimuli is enough to "force" certain effects to appear. If this is the case, then it should be proposed that physical attractiveness experiments employ more than just 2 stimuli at each level of attractiveness.

Heilman and Saruwatari (1979) used a managerial and a nonmanagerial job in their manipulation of the job type. For the nonmanagerial position, they found that only females benefited from being attractive. As Heilman and Saruwatari (1979) noted, it is difficult to find positions of power that require predominantly feminine skills. In order to address this deficit, we created two managerial positions that would not only be sex-typed positions by title, but would also describe the jobs in terms of either masculine or feminine skills. We attempted to make these positions both equal in status and degree of responsibility. We described both the job
responsibilities and the applicant attributes that we perceived as necessary for successful performance on the job. We felt that since the job descriptions were fairly specific in describing the capacities of the job, subjects might not have had to "second guess" whether applicants possessed the attributes perceived as necessary for the position.

These methodological differences were employed to refine the experimental manipulations. However, there are several cautions to be noted before a clear interpretation of the results can be made. First, applicants for the fine jewelry manager position generally received higher ratings. Therefore, the fine jewelry manager position may not have been perceived as equivalent in prestige to the manager of the hardware department. Another caution should be directed at the obvious nature of the experimental manipulations of attractiveness. Even more important than the transparency of our interests, however, was the fact that subjects ratings still expressed both physical attractiveness and sex biases. The following subject's comment exhibits this paradox.

I think you were studying how much a person's physical characteristics were involved in the hiring process. You will probably find that it does, although it shouldn't in most cases.

This last issue is both important and frustrating. It seems that not only do sex and physical attractiveness biases exist, but they endure even when raters are cognizant of their stereotypes. The persistence of such stereotypes, therefore, challenges researchers to not just note their presence but to suggest practical techniques to diminish their effects in the organizational setting.
References


Staff. (1984, October 1). You've come a long way baby - but not as far as you thought. *Businessweek*, 126-128.


APPENDIX A

Trait Rating Scale
FIRST IMPRESSIONS

On each of the adjective pairs below please describe your first impressions of the person whose photograph you have been given. Mark your answer by circling one of the seven numbers or point on each scale. Circle one of the numbers on the extreme right or left of the scale if you believe the person possesses a trait to a very low or very high degree. Circle one of the numbers toward the middle of the scale to indicate that the person possesses a more moderate degree of the trait.

Circle only one number for each of the scales below.

<table>
<thead>
<tr>
<th>1. COMPETENT</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>INCOMPETENT</th>
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<tr>
<td>2. INTELLIGENT</td>
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<td>2</td>
<td>3</td>
<td>4</td>
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<td>7</td>
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<tr>
<td>3. FRIENDLY</td>
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<td>6</td>
<td>7</td>
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</tr>
<tr>
<td>4. SOCIALLY SKILLED</td>
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<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
<td>SOCIALLY UNSKILLED</td>
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<tr>
<td>5. AMBITIOUS</td>
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<td>2</td>
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<td>6</td>
<td>7</td>
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<td>6. TOUGH</td>
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<td>7. RESPONSIBLE</td>
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<td>4</td>
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<td>7</td>
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<td>8. DOMINANT</td>
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<td>5</td>
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<td>7</td>
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<td>9. SOCIABLE</td>
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<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
<td>UNSOCIABLE</td>
</tr>
<tr>
<td>10. ORDERLY</td>
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<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
<td>MESSY</td>
</tr>
<tr>
<td>11. POPULAR</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
<td>UNPOPULAR</td>
</tr>
<tr>
<td>12. PLEASANT</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
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<td>7</td>
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</tr>
<tr>
<td>13. CONFIDENT</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
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<td>14. TACTFUL</td>
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<td>4</td>
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<td>6</td>
<td>7</td>
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<td>15. OUTGOING</td>
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<td>2</td>
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<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
<td>SHY</td>
</tr>
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<td>16. MASCULINE</td>
<td>1</td>
<td>2</td>
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<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
<td>FEMININE</td>
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<td>17. ENERGETIC</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
<td>LAZY</td>
</tr>
<tr>
<td>18. PHYSICALLY ATTRACTIVE</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
<td>PHYSICALLY UNATTRACTIVE</td>
</tr>
</tbody>
</table>
APPENDIX B
MANAGERIAL QUESTIONNAIRE
What are your first impressions?

The following pictures you are about to evaluate are potential applicants for a managerial job. Given that you have very little information regarding these applicants, rate these applicants on their perceived qualifications for the managerial position based on physical appearance. Please describe your first impressions concerning the qualifications of the applicants on the scale below. Fill in you answers on the scantron form from 1 to 7. Fill in one of the numbers on the extreme right or left of the scale if you believe the persons are qualified to a very low or very high degree. Fill in one of the numbers toward the middle of the scale to indicate that the person possesses moderate qualifications.

highly qualified 1 2 3 4 5 6 7 highly unqualified
APPENDIX C
MANAGERIAL JOB DESCRIPTIONS
Job Description

Manager of Fine Jewelry Department
Smith's Department Store

Nature and Scope

The jewelry manager performs a variety of duties related to the handling of customers and subordinates. The manager must maintain a good rapport with customers and be perceived as friendly, sociable, hospitable, pleasant and efficient in order to ensure repeat business and a loyal clientele in the competitive jewelry business. It is important that the manager maintain good working relations with salespeople, and be able to teach through example the social skills necessary to deal with customers. This position requires considerable proficiency in social skills particularly in helping customers make decisions regarding special sentimental jewelry purchases (e.g., anniversary gifts, wedding bands). Considerable tact is necessary in dealing with customers’ complaints and subordinates problems. The manager should be gracious and polite no matter what the problem. It is the manager’s responsibility to keep track of inventory, to plan work schedules, and to evaluate subordinate’s performance. Efficient, accurate, and neat record keeping is required and merchandise must be displayed in an orderly way to avoid errors in itemizing the stock. A methodical person is therefore highly desirable. In sum, this position requires a neat, orderly individual who will be well-liked by customers and employees.
Job Description

Manager of Hardware Department

Smith's Department Store

Nature and Scope

The manager of the hardware department must supervise hardware personnel and manage the day to day operations of the hardware department. The manager must deal assertively with buyers, delivery persons, and storeroom managers. Because the hardware department supplies to local contractors and construction companies, the manager must take the lead and be aggressive in setting competitive prices and determining volume discounts. Occasionally, the manager must exert influence to settle disputes or misunderstandings regarding pricing policies. The manager must be respected and gain the upper hand in dealings with local companies regarding the pricing of large quantities of supplies. Because inefficiency may result in loss of construction company business, the manager must exert control over employees who do not meet sales/production standards and stringently enforce deadlines and quotas within the department. Therefore, the manager should train, check, review, and discipline subordinates continuously. The manager's authority must be forcefully exercised in this department in order to keep losses at a minimum. The manager should be firm regarding policy and rules in order to maintain a fair, stable atmosphere both within the department and with clients. In general, the position requires an individual who is self-sufficient, shrewd, aggressive and is capable of taking the lead in dealing with clients and subordinates.
APPENDIX D
SAMPLE RESUME
<table>
<thead>
<tr>
<th>TYPE OF SCHOOL</th>
<th>NAME AND LOCATION</th>
<th>YEARS COMPLETED</th>
<th>DEGREE RECEIVED OR EXPECTED AND DATE</th>
<th>APPROXIMATE RANK OF GRADUATE CLASS</th>
<th>GRADE AVERAGE</th>
<th>COLLEGE平静 MOSSLED</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prep or High School</td>
<td>Williamson Academy</td>
<td>1978-1982</td>
<td>Diploma '82</td>
<td>75</td>
<td>2nd</td>
<td>3.30</td>
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<tr>
<td></td>
<td>41 Union Dr., S.P.</td>
<td></td>
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<tr>
<td>College or University</td>
<td>U. of Minnesota</td>
<td>1982-1986</td>
<td>B. S. '86</td>
<td>1800</td>
<td>2nd</td>
<td>3.56</td>
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<td></td>
<td>75 S. River Rd.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Minneapolis, MN 55455</td>
<td></td>
<td></td>
<td></td>
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</tbody>
</table>

**Scholastic Honors (Including scholarships, honorary societies, and publications):**

Dean's List 3 semesters

**Campus Activities -- Other Than Athletics (Specify or specify, clubs, class organizations, offices, etc.):**

Chairperson of Spanish Club

**Athletics (Specify capacity; encircle varsity sports):**

Cross-country skiing

**Hobbies and Outside Interests:**

Snow-mobilin, Art
<table>
<thead>
<tr>
<th>YOUR THREE MOST IMPORTANT JOBS:</th>
<th>PLACE A CHECK IN THE APPROPRIATE COLUMN</th>
<th>NATURE OF YOUR WORK</th>
<th>MONTHLY SALARY</th>
<th>REASON FOR LEAVING</th>
</tr>
</thead>
<tbody>
<tr>
<td>NAME &amp; ADDRESS OF EMPLOYER</td>
<td>DATES</td>
<td>FULL TIME</td>
<td>PART TIME</td>
<td>SUMMER</td>
</tr>
<tr>
<td>PRESENT OR LAST POSITION</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Target Stores</td>
<td>FROM: 1986</td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Minneapolis, MN</td>
<td>TO: Now</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Second Job</td>
<td>FROM: 1983</td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Radisson Group</td>
<td>TO: 1984</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Third Job</td>
<td>FROM: TTM</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

LIST THREE FACULTY MEMBERS WHO ARE WELL ACQUAINTED WITH YOUR SCHOLARSHIP AND GENERAL ABILITY.

<table>
<thead>
<tr>
<th>NAME</th>
<th>DEPARTMENT</th>
<th>ADDRESS</th>
<th>PHONE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dr. Adrien Lonlev</td>
<td>Sales Mktgs.</td>
<td>U. of Minn.</td>
<td>822-7551</td>
</tr>
<tr>
<td>Dr. Laurence D. Kirt</td>
<td></td>
<td></td>
<td>822-7554</td>
</tr>
<tr>
<td>Dr. Floyd Armstrong</td>
<td></td>
<td></td>
<td>822-7558</td>
</tr>
</tbody>
</table>

INDICATE TYPE OR TYPES OF WORK IN WHICH YOU ARE INTERESTED:

Sales (Management)

DO YOU HAVE ANY PREFERENCE REGARDING LOCATIONS? IF SO, SPECIFY:

None

DATE AVAILABLE FOR EMPLOYMENT:

I am presently available

DAYS OF THE WEEK, OR SPECIFIC DATES, CONVENIENT FOR FURTHER INTERVIEWING:

Any day

YOU MAY SUPPLEMENT THIS APPLICATION FOR EMPLOYMENT WITH ANY FURTHER INFORMATION WHICH MAY BE HELPFUL TO US. USE ADDITIONAL PAPER, IF NECESSARY.

I UNDERSTAND THAT I MUST MEET THE PHYSICAL AND MENTAL STANDARDS ESTABLISHED BY THE COMPANY FROM TIME TO TIME AS A CONDITION OF INITIAL AND CONTINUED EMPLOYMENT, AND I AGREE TO A PHYSICAL EXAMINATION AT COMPANY EXPENSE BEFORE EMPLOYMENT, ANNUALLY THEREAFTER, AFTER PERIODS OF ILLNESS, AND AT SUCH OTHER TIMES AS MAY BE REQUESTED.

THE INFORMATION GIVEN IN THIS APPLICATION IS CORRECT TO THE BEST OF MY KNOWLEDGE AND PERMISSION IS HEREBY GIVEN FOR ANY INVESTIGATION THAT MAY BE NECESSARY. I ALSO AGREE TO SIGN AN EMPLOYEE AGREEMENT FOR ASSIGNMENT OF INVENTIONS RELATED TO THE COMPANY'S BUSINESS.

Signature of Applicant
APPENDIX E

APPLICANT SUITABILITY QUESTIONNAIRE
NAME OF APPLICANT:  

QUALIFICATIONS  
RATING FORM  
MANAGER OF FINE JEWELRY  

Below are a number of items which you will have to respond to for each applicant. Mark your answer by circling one of the 7 numbers or points on the scale. The number to the extreme right or left mean that the applicant could be described to a greater extent by the word or words at that end. Numbers in the middle (e.g., "4") means that the candidate cannot be definitely described by either phrase.

How willing are you to hire the applicant?

definitely 1 2 3 4 5 6 7
would not recommend hiring

All in all, how qualified do you think the applicant is for the position?

highly qualified 1 2 3 4 5 6 7
unqualified

Assume that the applicant was recommended for hire, suggest his/her starting salary (in thousands, K) from one of the seven choices below.

1 2 3 4 5 6 7
16K 16.5K 17K 17.5K 18K 18.5K 19K

If the applicant was hired, how successfully would you expect this applicant to perform on the job?

very successful 1 2 3 4 5 6 7
unsuccessful

Define your level of confidence in your decisions:

highly confident 1 2 3 4 5 6 7
unconfident
Name of Applicant:  

QUALIFICATIONS  
RATING FORM  
MANAGER OF HARDWARE  

Below are a number of items which you will have to respond to for each applicant. Mark your answer by circling one of the 7 numbers or points on the scale. The number to the extreme right or left mean that the applicant could be described to a greater extent by the word or words at that end. Numbers in the middle (e.g., "4") means that the candidate cannot be definitely described by either phrase.

How willing are you to hire the applicant?

| definitely 1 | 2 | 3 | 4 | 5 | 6 | 7 | definitely would not recommend hiring |

All in all, how qualified do you think the applicant is for the position?

| highly qualified | 1 | 2 | 3 | 4 | 5 | 6 | 7 | highly unqualified |

Assume that the applicant was recommended for hire, suggest his/her starting salary (in thousands, K) from one of the seven choices below.

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 16K | 16.5K | 17K | 17.5K | 18K | 18.5K | 19K |

If the applicant was hired, how successfully would you expect this applicant to perform on the job?

| very successful | 1 | 2 | 3 | 4 | 5 | 6 | 7 | very unsuccessful |

Define your level of confidence in your decisions:

| highly confident | 1 | 2 | 3 | 4 | 5 | 6 | 7 | highly unconfident |
APPENDIX F

SUMMARY RATING FORM
SUMMARY RATING FORM

If you were asked to choose one job applicant for each position, indicate below who would be your most likely choice. Use the code number on the top right corner of your qualifications rating form to designate your choice.

Fine Jewelry Manager  #______________

Hardware Manager     #______________

What do you think we were studying in this experiment? Indicate below in a few sentences what you think we were interested in and what you think we expect to find.
APPENDIX G

BIPOLAR ADJECTIVE SCALE
Name of applicant: 
Code: 

Please rate each applicant on the following bipolar adjective scales. MATCH THE CODE ON THIS FORM WITH YOUR QUALIFICATIONS RATING FORMS AND PAPERCLIP THE APPLICATION, RATING FORMS FOR BOTH POSITIONS, AND THIS FORM TOGETHER FOR EACH APPLICANT.

<table>
<thead>
<tr>
<th>adjective</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
</tr>
</thead>
<tbody>
<tr>
<td>dominant</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>7</td>
</tr>
<tr>
<td>physically</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
<td></td>
</tr>
<tr>
<td>attractive</td>
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<td></td>
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<td></td>
<td>7</td>
</tr>
<tr>
<td>sociable</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
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<tr>
<td>tough</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
</tr>
<tr>
<td>popular</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
</tr>
</tbody>
</table>

submissive
physically unattractive
unsociable
soft
unpopular
APPENDIX H

TRAIT RATING FORM
JOB DESCRIPTION INFORMATION

Below are a list of qualities or traits that were said to be required by either the manager of the hardware department or the manager of the fine jewelry department in the job descriptions.

Taking the lead  Gain the upper hand
Friendly  Sociable
Exert influence  Hospitable
Assertive  Exert control
Discipline subordinates  Pleasant
Socially skilled  Tactful
Polite  Exercise authority
Enforce deadlines  Orderly
Well-liked  Firm
Aggressive  Get along well with
Others

Please indicate the qualities belonging to each position by writing the appropriate word or words from the list underneath the job heading. All of the traits should be used.

Fine jewelry manager  Hardware manager

What percent of present employees in each position would you expect to be women?
Fine jewelry manager  Hardware manager